

Measuring and Valuing
the Contribution of
**Unpaid Care and
Domestic Work
(UCDW)**
in Ethiopian
Economy

S E P T E M B E R

2025

A D D I S A B A B A



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Ministry of Women and Social Affairs



IDRC · CRDI

Canada



NETWORK OF
ETHIOPIAN WOMEN'S
ASSOCIATIONS

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NETWORK OF
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Acronyms

CETU	Confederation of Ethiopian Trade Unions
CSOs	Civil Society Organizations
EAs	Enumeration Areas
EEA	Ethiopian Economics Association
ESS	Ethiopian Statistical Service
EU	European Union
EUS	Employment Unemployment Survey
EWLA	Ethiopian Women Lawyers Association
FYSP	Five-Year Strategic Plan
GDP	Gross Domestic Product
GTP	Growth and Transformation Plan
ICATUS	International Classification of Activities for Time-Use Statistics
IDRC	International Development Research Centre
IES	Institute of Ethiopian Studies
ILO	International Labour Organization
MoWSA	Ministry of Women and Social Affairs
MPTF	Multi-Partner Trust Fund
NAPGE	National Action Plan for Gender Equality
NEWA	Network of Ethiopian Women's Associations
NGOs	Non-Governmental Organizations
NTA	National Transfer Accounts
NTTA	National Time Transfer Accounts
PSI	Policy Studies Institute
SDGs	Sustainable Development Goals
SNA	System National Account
TUS	Time Use Survey
UCDW	Measuring and Valuing Unpaid Care and Domestic Work
UNDP	United Nations Development Programme
UN	United Nations
UPSNJP	Urban Productive Safety Net and Jobs Project
WDCP	Women's Development and Change Package
WEF	World Economic Forum

EXECUTIVE SUMMARY

This summary presents the findings from the research conducted by the Network of Ethiopian Women's Associations (NEWA), a coalition of 50 member associations/ organizations - in partnership with the Federal Ministry of Women and Social Affairs (MoWSA), with support from the International Development Research Centre (IDRC). The study represents the first comprehensive assessment of Unpaid Care and Domestic Work (UCDW) in Ethiopia, aiming to quantify the time allocation across household members and evaluate its potential contribution to Gross Domestic Product (GDP) if compensated as paid labor.

The study employed the 2013 Ethiopian Time Use Survey (ETUS) and the 2022 Employment and Unemployment Survey data. It also applied two established valuation methods: the Replacement Cost Approach, which assigns a monetary value to unpaid activities by referencing market wages for equivalent services, and the Opportunity Cost Approach, which estimates income forgone when individuals dedicate time to unpaid work rather than to their primary occupations. These methods, when combined, provide a robust estimate of UCDW's contribution to the economy.

NEWA implemented this ground-breaking research in a formal partnership with the MoWSA, the co-owner. To ensure comprehensive oversight and research quality, NEWA established a Technical Committee chaired by the MoWSA, with participation from key pro-poor ministries (MoWSA, MoE, MoH, MoLS, and MoWE), local CSOs, INGOs, and UNWOMEN. NEWA engaged a private consultant to conduct the fieldwork for this first-of-its-kind national survey. The final study report underwent rigorous validation with relevant stakeholders, organized at the national level in the presence of a delegate of the state minister and a senior official from the MoWSA, as well as sector ministries.



KEY FINDINGS

A TIME SPENT ON UNPAID CARE AND DOMESTIC WORK (UCDW)

Gender Disparity:

Women spend 41 hours/week on UCDW compared to men's 21 hours, while men dominate productive (paid) work (39h vs. 30h).

Marital Status:

Married women bear the highest burden (47h/week), nearly double married men's contribution (23h).

Rural-Urban Divide:

Rural women face the heaviest load (43h/week) due to lack of infrastructure (e.g., fetching water, firewood). Urban women spend 33h/week.

Age Groups:

Adults (18–60) shoulder the most UCDW burden, with women dedicating 43h/week vs. men's 22h.

B ECONOMIC VALUE OF UCDW

Replacement Cost Method: UCDW contributes 16.8% of Ethiopia's 2022 GDP (ETB 1,039 billion), with women accounting for 9.5% (ETB 589 billion) and men 7.3% (ETB 450 billion).

Opportunity Cost Method: UCDW's value rises to 22.6% of GDP (ETB 1,395 billion), reflecting forgone income. Women's share (11.6%) again exceeds men's (11.0%).

Sectoral Breakdown:

- Domestic work (cooking, cleaning) is the largest contributor (6.8–12.1% of GDP).
- Unpaid care (child/eldercare) adds 1.4–1.7% of GDP.
- Community services contribute 1.6–1.7% of GDP.

C REGIONAL AND DEMOGRAPHIC INSIGHTS

Rural Dominance: Rural areas contribute 13.3–17.8% of GDP (vs. urban's 3.5–4.8%), reflecting higher reliance on unpaid labor.

Top Regions: Oromia (6–8.5% of GDP), Amhara (4.8–5.7%), and SNNPR (3.4–5%) lead in UCDW contributions due to larger rural populations.

Age Groups: Working-age adults (18–60) drive UCDW's value (14.8–19.8% of GDP).

D GLOBAL COMPARISONS

Ethiopia's UCDW share aligns with studies in South Korea (22–59% GDP), Colombia (20%), and Sri Lanka (10–42%), underscoring its universal economic significance.

Socioeconomic Impact of Unpaid Care and Domestic Work

1. Impact on Leisure & Non-Productive Activities

UCDW Reduces Leisure Time: Every additional minute spent on unpaid care reduces time for hobbies, sports, and personal care (-0.342 coefficient), with women disproportionately affected.

Urban-Rural Divide: Urban residents benefit from 17.8 more leisure minutes per day than their rural counterparts, attributable to better infrastructure and recreational access.

Gender Gap: Men enjoy 24.5 more minutes of leisure daily than women, reflecting unequal care distribution.

Household Size: Larger households (-5.96 coefficient) and families with young children (+28.55) face trade-offs between caregiving and personal time.

2. Impact on Productive (Paid) Work

UCDW Lowers Paid Work Hours: Each minute spent on unpaid care reduces productive labor time, particularly constraining women's economic participation.

Rural Disadvantage: Rural workers log 9.44 fewer paid hours per week than urban workers due to fewer formal job opportunities.

Education Boosts Productivity: Each additional year of schooling correlates with increased paid work hours, highlighting education's role in economic mobility.

Gender Inequality: Women work 5 fewer paid hours per week than men, underscoring the urgent need for supportive caregiving policies such as parental leave and childcare.

CONCLUSIONS & RECOMMENDATIONS

CONCLUSIONS

From the results and discussions presented, the following conclusions were drawn.

1. **UCDW as an Economic Pillar:** Unpaid Care and Domestic Work (UCDW) represents a significant, yet systematically overlooked, pillar of the Ethiopian economy. The contribution of UCDW challenges conventional economic frameworks that exclude unpaid labor from GDP measurements, thereby perpetuating its invisibility in policy formulation and implementation.
2. **Gendered Burden of UCDW:** Women bear a disproportionate share of unpaid care responsibilities, reinforcing systemic gender inequalities. This unequal distribution of responsibilities limits women's participation in productive economic activities, with women averaging only 30 hours per week in paid work compared to men's 39 hours.
3. **Opportunity Costs of UCDW:** The economic value of UCDW reveals substantial opportunity costs that undermine women's economic empowerment. Analysis shows that every additional minute spent on UCDW reduces time available for productive work, creating a direct trade-off that disproportionately impacts women's economic opportunities.

4. **Cultural Foundations of UCDW Distribution:** Deeply embedded gender norms perpetuate the unequal distribution of UCDW, limiting progress toward gender equality. Women overwhelmingly take on caregiving and household management tasks, such as food preparation, cleaning, while men's contributions are largely limited to physically demanding or mobility-intensive tasks. These patterns reflect persistent cultural norms that reinforce gendered divisions of labor and economic marginalization.
5. **Transformative Potential of UCDW Recognition:** Recognizing and addressing the economic and social dimensions of UCDW is essential to building an inclusive and sustainable economy. This study provides evidence to guide policymakers, development practitioners, and advocates in addressing the systemic undervaluation of UCDW. With its emphasis on both economic and social implications, this report lays the foundation for transformative actions to build an economy that values all contributions, ensuring that no one—especially women—are left behind.

STRATEGIC RECOMMENDATIONS

Based on the evidence presented, the following insights are provided for action. Recommendations are targeted at policymakers, the Private Sector, the Civil Society & Media, households, and communities.

A. Recognize and Value Unpaid Care and Domestic Work (UCDW)

Formally integrate UCDW into national accounting to recognize its economic contribution and inform equitable policy-making. Incorporate UCDW into GDP calculations and national statistics to ensure visibility in economic planning. Institutionalize regular Time Use Surveys (TUS) that disaggregate data by location, gender, age, and disability. Align development policies with gender-responsive budgeting mechanisms that incorporate UCDW valuation.

B. Reduce UCDW Burdens through Infrastructure and Technology

Implement targeted interventions to alleviate time- and labor-intensive domestic workloads, particularly affecting women in rural areas. This can be achieved through, a) investing in clean water infrastructure, renewable energy systems, and improved cooking technologies including solar-powered pumps and fuel-efficient stoves. b) Enhancing access to affordable labor-saving tools by supporting private sector innovation through financing and commercialization incentives. Strengthen collaborative initiatives between government agencies and development partners, such as those led by the Ministry of Innovation and Technology and Ministry of Water and Energy, to scale up rural-friendly solutions.

C. Expand and Strengthen Childcare Services

Systematically develop childcare infrastructure to support women's economic participation. Expand mandatory childcare service provisions to private industries (manufacturing, hotels, and others) alongside public sector provisions. Promote subsidized, community-based childcare models informed by successful local and international practices. Foster public-private partnerships and mobilize donor resources to enhance childcare affordability for low-income families. Improve inter-ministerial coordination (MoWSA, MoE, Trade Ministry) to standardize and regulate childcare services nationwide.

D. Redistribute UCDW Responsibilities between Men and Women

Address deeply embedded cultural and social norms through comprehensive behavior change strategies. Launch national awareness campaigns utilizing media platforms, religious institutions, and community leaders to promote equitable household roles. Integrate gender equality into school curricula, teaching boys and girls about shared caregiving from an early age. Scale up male engagement programs to normalize men's participation in care work. Highlight positive male role models actively engaged in caregiving, domestic work, and community service to challenge gender norms and inspire broader male participation.

E. Promote Gender-Responsive Labor Policies

Strengthen implementation of existing parental leave policies through enhanced enforcement mechanisms and awareness-raising efforts, with particular focus on private sector compliance. Expand flexible work arrangements including remote work options and adjustable schedules, to support workers balancing paid and unpaid labor. Extend social protection coverage, including health insurance and childcare support, to informal sector workers who face the most severe care-work burdens. Enhance stakeholder engagement across government, private sector, civil society, media, and household levels.

F. Professionalize Domestic Work to Reduce UCDW Burdens

Establish formal structures for Ethiopia's domestic work sector to simultaneously reduce women's unpaid care burdens and create decent employment opportunities. Develop certified training programs in childcare and household management, alongside standardized contracts, and labor protections to improve service quality. Formalize the sector by establishing minimum wages, social security benefits, and reasonable working conditions. Implement public awareness campaigns to recognize domestic work as skilled labor and promote fair treatment.

G. Future Research and Data Improvements

Address current data constraints with strategic investments in inclusive and timely data systems. Conduct regular Time Use Surveys to accurately capture evolving care dynamics. Incorporate disability data to document unpaid care contributions of persons with disabilities. Advocate for sustainable, for government-funded TUS initiatives to overcome existing data limitations and ensure long-term policy relevance.

Measuring and Valuing the
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1 INTRODUCTION

1.1 BACKGROUND

The Network of Ethiopian Women's Associations (NEWA) is a prominent non-profit coalition of 38-member associations/organizations,¹ working nationwide to promote gender equality, women's empowerment, and the elimination of gender-based violence. Over the past 20 years, NEWA has brought together women's associations and structures to influence policies and integrate women and girls into the mainstream of Ethiopian society. The network strives to ensure that national policies, plans, and programs account for women's interests and secure their social, economic, political, and legal rights as enshrined in both national and international instruments.

One of NEWA's key strategies, as outlined in its Five-Year Strategic Plan (FYSP 2020-2024), is to research to support its advocacy efforts. This research aims to provide evidence for addressing discrimination and challenges faced by women and girls. However, NEWA's efforts are often constrained by a lack of up-to-date evidence or by existing data that needs further analysis to inform policy and investment decisions. NEWA, therefore, prioritizes evidence generation as a critical tool for driving meaningful change.

With financial and technical backing from the International Development Research Centre (IDRC), and partnership with the MoWSA, NEWA launched a project titled "Coupling Unpaid Care Domestic Work with Local Development Agenda for Improved Care Systems in Ethiopia". The project seeks to review gender-mainstreaming strategies, enhance policy recognition of unpaid care work, and encourage investment in national care systems. This study contributes to these project goals by measuring and valuing Unpaid Care and Domestic Work (UCDW), demonstrating its economic contribution, and elevating UCDW's visibility in national policy discussions.

1.2 THE CONTEXT

Across the globe, UCDW is overwhelmingly carried out by women, significantly restricting their access to education, employment, political engagement, and leisure.² According to the International Labour Organization (ILO), women perform three times more unpaid care work than men, a burden that perpetuates gender inequalities across societies. Unfortunately, these unpaid domestic and care activities are not taken into account neither in conventional national accounts, nor in the calculation of the Gross Domestic Product (GDP) in most countries and Ethiopia is not an exception. This means women's domestic economic contribution is largely unreported. Including the value of time spent on UCDW in national accounts is a first step towards gender equality and is in line with international commitments. These include UN Sustainable Development Goal (SDG) 5.4, which calls for recognizing and valuing unpaid care work through public services and shared domestic responsibility, and the African Union Agenda 2063, Goal 17 which aspires to 'full gender equality in all spheres of life' strengthening the role of Africa's women by ensuring gender equality and parity. This continental ambition is increasingly reflected in Ethiopian policies that acknowledge the constraints UCDW imposes on women.

¹ By 2009, NEWA's membership had grown to 42 organizations and associations working for women and children. (See: <https://newaethiopia.org/>)

² Oxfam (2014). Factors and norms influencing unpaid care work.
<https://policy-practice.oxfam.org/resources/>

Currently, UCDW concerns are being addressed through a 3R or 5R approach. Frameworks like the “5Rs” advocate for: recognizing UCDW by generating evidence, reducing household burden through labour saving technologies, redistributing responsibilities among household members, rewarding unpaid care and domestic workers, and representing their voices in policy making process.

In Ethiopia, UCDW is gaining increasing recognition within gender and social protection policies. Early efforts, such as, the National Action Plan for Gender Equality (2006 – 2010) identifies six distinct objectives:

- **reducing women’s workload through enhancing labour-saving technologies and know-how,**
- **redistributing roles between men and women,**
- **increasing investment in areas that contribute to reducing women’s heavy workload (such as water supply, flour mills, energy, food preparation devices and transportation),**
- **increasing the involvement of women in economic policy development improving access to resources for urban, rural and pastoral women, and**
- **expanding the provision of social protection.**

Subsequent initiatives have reinforced this focus. The Joint Program on Gender Equality and Women’s Empowerment (JP GEWE II) established four synergistic outcomes aimed at creating holistic improvements in Ethiopian women’s lives, with two directly addressing UCDW (MPTF, 2017). These include strengthening federal and local government institutions’ capacity to implement national and international gender equality commitments, as well as enhancing the ability of institutions and communities at all levels to promote and protect women’s and girls’ rights.

More recently, key legislative and policy frameworks have introduced concrete measures. The Ten Years Development Plan (2021–2030) envisions eliminating the pay differential between men and women for similar jobs, which currently stands at 44 per cent, on average. It also aims to equip all public institutions with child care facilities, and suitable work environments for people with disabilities, by 2030. The Labour Proclamation No. 1156/2019 extends maternity leave to 120 days and attempts to curb workplace sexual harassment and sexual violence. The Federal Civil Servants Proclamation No. 1064/2017 guarantees more favourable working conditions for civil servants, particularly women. It asserts equal pay for equal work, providing for day care in office spaces, extending maternity leave from 90 to 120 days and paternity leave from five to 10 days.

Despite these relatively progressive policies, a significant evidence gap persists. There remains a lack of robust data quantifying UCDW’s contribution to the Ethiopian economy, a gap not fully addressed by the 2013 Time Use Survey or development partners efforts, there remains a lack of evidence about UCDW’s contribution to the economy. This evidence is crucial for effective advocacy and policy-making.

To fill this void, NEWA commissioned a first-of-its-kind study to measure and Value UCDW in Ethiopia. Measuring and valuing UCDW enables the recognition of its economic worth and social contribution. It provides policy-makers with critical insights into the distribution of caregiving responsibilities and their impacts, thereby informing the design of effective social protection, labour market participation, gender equality, and work-life balance policies. Ultimately, the evidence is indispensable for crafting targeted interventions and empowering stakeholders with the data needed for informed advocacy.

1.3 OBJECTIVE OF THE STUDY

The primary objective of this study is to quantify the time household members—men, women, children, and the elderly—spent on Unpaid Care and Domestic Work by and assess its potential contribution to Ethiopia's Gross Domestic Product (GDP) if compensated as paid labour. This analysis aims to reveal the economic value of unpaid work and its critical, yet unrecognized, role in the economy.

The specific objectives of the study are as follows

Quantify Time Spent on UCDW: To explore and document the amount of time household members dedicate to unpaid care and domestic tasks, such as childcare, eldercare, cooking, cleaning, and other essential daily activities. The goal is to produce a comprehensive account of time use patterns across households, which serves as a foundation for further economic analysis.

Assess Gender and Age Disparities in Unpaid Labour: To identify and examine disparities in time allocation for UCDW across gender and age groups (men, women, adolescents aged 15-17, and the elderly). This objective reveals the uneven distribution of caregiving responsibilities and its potential role in perpetuating social and economic inequalities.

Estimate the Economic Value of Unpaid Work: To calculate the monetary value of UCDW. By estimating how much these tasks would cost if compensated at prevailing market rates, the study highlights UCDW's potential contribution to the national economy and its impact on Ethiopia's GDP.

Evaluate the Socioeconomic Impact of Unpaid Work: To explore the broader implications of UCDW on household well-being and national economic performance. The study assessed how the unequal distribution of unpaid labor affects household income, labour market participation, and social protection systems, offering insights into its influence on social and economic development.

By addressing these objectives, the study provides evidence to advocate for the recognition and valuation of UCDW, supporting more informed policymaking and efforts toward gender equality.

1.4 LIMITATIONS OF THE STUDY

The analysis of UCDW in Ethiopia is subject to methodological and contextual limitations due to its reliance on two key datasets: the 2013 Time Use Survey (TUS) and the 2022 Employment and Unemployment Survey (EUS). While valuable, these sources impose several constraints:

Data Limitations

The 2013 TUS data do not account for socioeconomic changes post-2013, including urbanization, the COVID-19 pandemic, and policy reforms such as expanded childcare mandates. Shifting gender norms and increased female labour force participation may have altered UCDW distribution, while technological advancements (e.g., clean stoves, water pumps) likely reduced time burdens—none of which are reflected in the dataset. Additionally, the absence of disability-disaggregated data excludes a critical demographic from the analysis. The 2022 EUS, meanwhile, focuses predominantly on urban areas, neglecting rural UCDW dynamics where care burdens are typically heavier. The wage-based Opportunity Cost method further

introduces bias, as it undervalues informal and unpaid labour—predominantly performed by women—and does not adequately account for unemployment or underemployment.

Methodological Constraints in Valuation:

A key methodological limitation is the use of 2013 time-use data alongside 2022 wage rates, which may not fully align due to inflation, productivity shifts, and labour market changes. Although adjusting 2022 wages to 2013 values would enhance temporal consistency, the lack of reliable, disaggregated wage data from 2013 necessitated the current approach. Moreover, the urban-centric wage data from the 2022 EUS may inaccurately reflect rural wage structures, potentially skewing national UCDW valuations. Despite these limitations, the 2013 TUS remains the only nationally representative dataset on time use, and the slow evolution of cultural norms influencing care supports its continued relevance.

Policy Relevance Despite Data Gaps:

While these constraints warrant caution, the study's findings remain vital for policymaking and advocacy. It establishes Ethiopia's first national valuation of UCDW, providing a benchmark for future research and underscoring persistent gender disparities—women spend twice as much time on UCDW as men. The analysis aligns with SDG 5.4 and Ethiopia's gender policies, such as the National Action Plan for Gender Equality (NAPGE), simultaneously highlighting the urgent need for updated, inclusive time-use surveys.

Turning Limitations into Advocacy Opportunities:

Rather than invalidating the study's conclusions, these limitations reinforce the necessity for better data systems and targeted policy interventions. The findings support actionable measures, including expanding childcare access, promoting labor-saving technologies, and integrating gender-sensitive education reforms. They also provide civil society and private sector actors (e.g., NGOs, financial institutions) with evidence to advocate for paid parental leave, women-centric financing, and UCDW-inclusive economic policies. Ultimately, this study not only quantifies UCDW but also catalyzes efforts to address its undervaluation through improved data collection and equitable policy design.

2 LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

2.1 REVIEW OF LITERATURE

2.2.1 Estimates of UCDW

Global studies consistently demonstrate that UCDW is a significant, yet undervalued, economic contributor, disproportionately borne by women. This section reviews key international estimates and findings.

A study by Suh (2021) estimated the value of unpaid care work in South Korea using Time Use Survey data collected in 2009 and 2014. The surveys, which covered individuals aged 10 and above, recorded time spent on productive activities over a 24-hours recall period. The study applied the Replacement Cost method, using both generalist and specialist approaches to valuation. Accordingly, using replacement generalist approach, the value unpaid care was estimated at 232.6 billion USD, while the specialist approach yielded a much higher valuation of 412.7 billion USD. Based on these figures, unpaid care has the share of 22% to 59% of GDP for replacement generalist and specialist approach respectively. Moreover, the study quantified gender disparity, revealing that women contributed 72% of the total value of unpaid care in South Korea.

Miller & Sedai (2021) analyzed the association between time spent on unpaid caregiving activities and paid market engagement using an Opportunity Cost approach. Their study in the United States revealed significant gender disparities. On average, women spent 34 more minutes per day on caregiving activity than men, while engaging in 50 fewer minutes of paid work. The research also identified divergent trends over the life course. As women age, their time allocation shifts away from personal care and toward unpaid care to their household members. In contrast, men's time dedicated to home production decreases, with more time allocated to personal care and leisure in later life. The findings confirm that gender inequality in the distribution of care work remains pronounced in the USA, with women bearing the lion share of unpaid responsibilities at the cost of their engagement in the service paid economy.

A study by Urdinola & Tovar, (2019) examined the time-use patterns by age and sex using the 2012 Colombian Time Use Survey. The results revealed a significant gender gap in unpaid work across all age groups. On average, women aged 20-70 devoted three times more to unpaid work than men. This disparity was particularly pronounced in child care, with women aged 20-50 spending 3.5 more hours on it than their male counterparts. The study also found that time spent on unpaid care significantly decline with higher level of education despite the gender gap remained high for women. Using Replacement Cost generalist approach, they estimated that unpaid care activities contributed approximately 20% share of GDP.

According to the 2013 Uruguay Time Use Survey, Urdinola & Tovar (2019) estimated that the unpaid work accounted for 32% of the country's GDP, with home production comprising 71% of this contribution. The time spent on unpaid activities was unevenly distributed, with women dedicating 33 hours per week to household tasks compared to men's 14 hours. This disparity created an inverse gender gap in the labor market; women aged 20–59 spent an average of 38 hours per week on household activities and 24 to the labor market, while, men spent 15 and 38 hours, respectively.

In Vietnam, a study by Care (2021) calculates the economic value of unpaid work and domestic work performed by men and women. The result confirmed the prevalence of traditional gender roles, with women bearing a disproportionate share of unpaid work—an average of 4.46 hours per day compared to 3.02 hours of men. The time spent on unpaid activities varied not only by gender but also by geographical location and ethnicity. The study found that increased access to household appliances and childcare reduced women's UCDW burden by 0.14 hours per day. Using both the Replacement Cost (generalist approach) and Opportunity Cost methods, the economic valuation showed a significant variation: women's monthly contribution to household production was valued between VND 2,035,000 – 2,414, 000, while men's monthly contribution ranged from VDN 1,610,000 to 2,799,300.

A study by Muriithi et al., (2017) examined the gender and age economic activity within homes, farms, and household enterprises using data from the 2005/2006 Kenya based on Kenya Integrated Household Budget Survey (KIHBS). Applying a generalist Replacement Cost approach to value unpaid work, the findings showed that men worked more in household enterprises and earned higher incomes, while women worked more on farms and earn less across all age categories. In monetary terms, the value of unpaid work were, on average, 6000 Kenyan shillings per person for woman, compared to 5000 per person for men.

A similar study by J. Suh et al. (2021) found that women in Bhutan spend more than twice as much time as men on unpaid care work, regardless of their income, age, residency, or household size. Using both generalist and specialist cost approaches, the total estimated value of unpaid housework and caregiving by both men and women in 2017 was Nu25.65 billion, based on an input-based, specialist wage approach valuation. Across all categories of unpaid housework and caregiving in 2017 was Nu 25.65 billion (specialist approach). Women contributed about 68% (Nu 17.31 billion) of this total. Using the generalist approach, the value was Nu 16.03 billion, or 10% of GDP. Overall, the market value of unpaid work was equivalent to 10-16% of Bhutan's GDP, with women contributing 10-11% and men 5%.

Gunewardena & Ashvin, (2017) estimated the economic value of unpaid care work using the Sri Lanka's 2017 Time Use Survey. Valuing unpaid work using generalist and specialist wage rates, they found the average person's contribution ranges from Rs. 248.72 to per day to Rs.820.77 per day. Due to a larger time contribution, of the average woman's valuation (Rs.358.33 to Rs.1455.39) was over three and a half times that of the average man (Rs. 98.96 to Rs. 401.92). This unpaid work contributed between 10.3% and 42% of Sri Lanka's GDP, indicating that its inclusion would increase GDP by at least 10%.

A UN Women (2023) policy brief highlighted that, on average, women in Mali perform nearly four times as much UCDW as men. By imputing a wage value using the generalist Replacement Cost approach, the monetary value of unpaid work was estimated at 288.18 USD per week for women, compared to 95.51 USD for men. If accounted for, this unpaid care and domestic work would represent 22.3% of GDP, in 2019, with women's contribution alone amounting to 17.6% of GDP. The brief concludes with a set of recommendations to recognize, reduce, and redistribute UCDW in Mali.

2.2.2 THE AWRAMBA MODEL:

AN EXEMPLARY CASE OF GENDER-EQUITABLE LABOR DIVISION IN ETHIOPIA

The Awramba community in Ethiopia presents a unique case of egalitarian gender roles, challenging traditional norms, particularly concerning the distribution of Unpaid Care and Domestic Work (UCDW). Academic research highlights its collective labor system, where care work and household chores are shared equally between men and women (Frehiwot, 2013). This is exemplified by men's active participation in domains typically feminized elsewhere, such as childcare and cleaning Mersha & Van Eerdewijk (2019). Empirical evidence from Tefera (2015), based on time-use data, confirms balanced workloads in farming, weaving, and caregiving. Collectively, these studies establish Awramba as a critical empirical case study of gender-equitable UCDW distribution.

Policy institutions have recognized the model's transformative potential. Reports from the UN Women (2017) and the Ethiopian Ministry of Women & Social Affairs (2020) document how Awramba's approach reduces women's unpaid labor burdens through collective responsibility. These reports advocate for scaling its labor-sharing principles to address UCDW disparities in rural Ethiopia, aligning with national goals outlined in the National Action Plan for Gender Equality (NAP-GE) and global commitments like SDG 5.

Comparative analyses further underscore Awramba's significance. Abebe & Kabeer (2020) quantify its impact, finding that Awramba women spend 30% less time on UCDW than women in neighboring communities. Similarly, the European Institute for Gender Equality (EIGE, 2019) identifies Awramba as an outlier in Sub-Saharan Africa, where unequal UCDW burdens are the norm. These findings highlight the community's exceptional role in regional gender studies and its relevance for research on UCDW valuation.

For this study, the Awramba model serves as both a theoretical and practical benchmark. It provides a living critique the conventional feminization of care work (Folbre, 2012) while offering practical insights for community-based UCDW redistribution. However, its uniqueness—as noted by Tefera (2015)—requires cautious application to avoid overgeneralization. By integrating Awramba's lessons, this research can advocate for more equitable labor policies while acknowledging contextual limitations.

2.2 CONCEPTUAL FRAMEWORK

Gross Domestic Product (GDP) calculation is based on the internationally agreed-upon System of National Accounts (SNA) framework, which measures economic activity through market-oriented activities and formally recognized production. Consequently, Non-SNA activities—including much of Unpaid Care and Domestic Work (UCDW)—fall outside the SNA production boundary and are excluded from GDP, despite their significant contribution to societal and economic well-being. Figure 1 outlines the terminology commonly used to classify these different types of productive activities (or 'work').

To analyze these excluded activities—the UCDW—this study draws upon two complementary frameworks: National Transfer Accounts (NTA), which operates within SNA boundary and National Time Transfer Accounts (NTTA), which is designed for non-SNA. These frameworks provide an essential lens for understanding and quantifying economic activities that are typically excluded from conventional metrics like GDP, offering a more inclusive perspective on the contributions of non-market activities to society and the economy.

National Transfer Accounts (NTA) measures economic flows of goods, services, and transfers between individuals and across generations (e.g., age) within market boundaries.³ While this framework is valuable for analyzing lifecycle patterns of production and consumption, it has a significant limitation for gender analysis: NTA disaggregates national accounts by age, not by gender. Furthermore, it only incorporates resource transfers that fall within the SNA production boundary, thereby excluding the vast portion of the gendered economy comprised of unpaid, non-market work.⁴

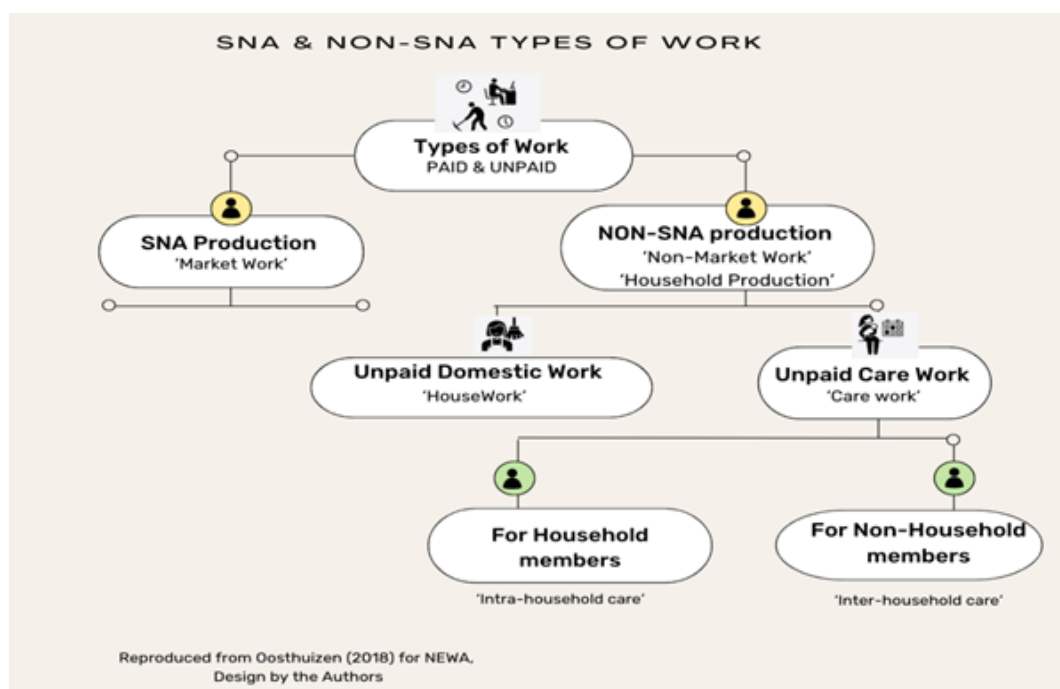


Figure 1: Types of work

³ Lee & Mason, 2011

⁴ Donehower, G. (2018)

Consequently, traditional NTA analyses are limited by their focus on market-based activities, rendering unpaid labor invisible. For example, while childcare services purchased in the market are included in GDP, the same services provided informally by a family member are excluded, despite their equivalent economic and social value.

National Time Transfer Accounts (NTTA) framework addresses this gap by integrating non-market activities such as caregiving and domestic work. NTTA quantifies the time spent on these activities and assigns a monetary value based on appropriate wage rates, thereby addressing the invisibility of unpaid labor. For instance, the time a woman spends cooking, cleaning, or providing childcare at home is valued using wage rates for domestic workers or caregivers, translating these non-market contributions into economic terms. This approach enables a comprehensive understanding of economic contributions that are overlooked by market-based accounting.

The application of NTTA is particularly significant in Ethiopia, where the government excluded UCDW from GDP calculations. Ethiopian women, like women globally, disproportionately shoulder the burden of unpaid labor, contributing to household well-being and societal functioning in ways that remain largely unrecognized in formal economic statistics. By valuing unpaid labor through NTTA principles, our analysis highlights the critical economic contributions of UCDW and the gender disparities in its distribution.

The Ethiopian Time Use Survey data-set (2013) serves as the foundation for this analysis. By assigning monetary value to the hours spent on UCDW using wage equivalents, this study demonstrates its substantial economic contribution. For instance, if the average Ethiopian woman spends five hours daily on unpaid care work and this time is valued at the prevailing wage rate for domestic workers, the aggregate contribution of UCDW could represent a significant portion of the national economy. The analysis also reveals the extent of gender inequality in the distribution of unpaid labor, underscoring the urgent need for policies to redistribute these responsibilities.⁵

Furthermore, this approach provides an evidence base for advocating the inclusion of UCDW in Ethiopia's GDP calculations, aligning with international standards like System of National Accounts (SNA) (United Nations, 2009). Recognizing UCDW as a productive economic activity would not only reveal its scale but also inform policies that address gender inequalities. For example, investment in childcare services, labor-saving technologies, and initiatives that encourage men's participation in unpaid work would contribute to a more equitable and sustainable economy.

By situating unpaid care and domestic work within the conceptual frameworks of NTA and NTTA, this study fills important gaps in traditional economic analysis. It highlights the importance of valuing non-market activities and provides a strong foundation for policy recommendations aimed at achieving gender equality and inclusive economic development in Ethiopia.

⁵ Charmes, J. (2019))

3 METHODOLOGY

3.1 RESEARCH DESIGN

According to International Classification of Activities for Time-Use Statistics (ICATUS) activities are as either productive or non-productive (United Nations, 2016). An activity is considered productive if it satisfies the third-person criterion—meaning it can be delegated to another person while still achieving the same desired results (United Nations, 2016; Charmes, 2019; Urdinola & Tovar, 2019). Productive activities are further categorized as those within System of National Account (SNA) production boundary and those outside the SNA but within the general production boundary (non-SNA production). Table 1 below summarizes the major activities performed by the household members according to this classification:

SUMMARY OF MAJOR ACTIVITIES IN THE HOUSEHOLD

Activities	Categories
● Personal care	Do not meet the third-party criterion and are considered non-productive
● Employment for an establishment ● Primary production activities not for establishment ● Service for income and other production of goods not for establishment	Contracted time and already included in the national account
● Household maintenance, management, and shopping for own household ● Care for children, the sick, the elderly, disabled for own household ● Community service, and help to other households	Unpaid activities that would be included in national income if paid for. Productive activities the third-party criterion can be applied
● Learning ● Social, cultural and recreational activities ● Mass media use	Activities that generally cannot be performed by one person to benefit another. Do not meet the third-party criterion

Source: adapted from United Nations (2016)

The study was interested in measuring the unpaid activity that fall under category of rows 5-7. The time use survey report, which was published in 2014 called the UCDW as extended system national account (SNA) (CSA, 2014).

3.2 DATA SOURCES

This study analyzes unpaid care and domestic work (UCDW) in Ethiopia using two key datasets: the 2013 Ethiopian Time Use Survey (ETUS) and the 2022 Urban Employment and Unemployment Survey.

The ETUS followed a three-part methodology:

- General household questionnaires capturing living conditions (energy use, water access, expenditures);
- Household member profiles detailing demographic and socioeconomic characteristics; and
- 24-hour time diaries recording all activities, including duration, location, and compensation status.

Covering 20,122 households (14,009 rural; 6,113 urban) and 52,265 individuals aged 10 and above, the survey classified activities into four categories based on ICATUS standards: SNA production, non-SNA production, productive activities, and non-productive activities. The analysis focused on non-SNA activities, such as domestic work (cleaning, cooking), caregiving (child/elder care), and community volunteering.

For wage valuation, the study relied on the 2022 Urban Employment Survey (Round 2), which provided updated wage data across 429 job categories from 28,795 urban households. Despite the nine-year gap between datasets, their combined use was justified by:

- Persistent gender norms (Ethiopia's Gender Inequality Index remained at 0.502 in 2024);
- Stagnant labor policies (unchanged minimum wage since 2011); and
- Consistent wage patterns, with domestic workers' wages showing less than 15% variation between the 2021 Labor Force Survey and 2022 Urban Survey.

Methodological validation further confirmed wage stability. For instance, while rural domestic workers earned ETB 1,252 per month in 2021, their urban counterparts earned ETB 1,554. The 2022 Urban Survey reported a comparable average of ETB 1,669. Given the standardization of urban labor markets, this urban wage data served as a national proxy, with adjustments for structural aspects of unpaid work, which evolve more slowly than economic indicators.

Finally, the study incorporated qualitative perspectives from stakeholders, including government ministries (Ministry of Women and Social Affairs, Ministry of Labour and Skills, Ministry of Education), civil society organizations (CSOs), researchers, and academics. Their insights were assessed using a comprehensive checklist covering:

- General understanding of UCDW,
- Policy and legal frameworks,
- Economic and social value,
- Social protection mechanisms, and
- Gender and cultural dynamics.

Findings indicate growing recognition of UCDW's importance, though its contribution to Ethiopia's GDP remains unmeasured. This study provides critical insights to inform future policy discussions on valuing and supporting unpaid care work.

3.3 DATA ANALYSIS

3.3.1 Data Organization

Different functions were performed to make the ETUS readily available for the analysis.

STEP 1

household data, member data and diary data were merged into single data file using household serial number. Once the data merged into single file

STEP 2

data segregation was done by age, age grouped into:



ADOLESCENCE

(10-14 years)



TEENAGERS

(15-17 years)



ADULT

(18-60 years)



ELDERLY

(60+ years)

To align with the study's objective of valuing UCDW, the analytical sample was restricted to individuals aged 15 and above, considering the legal working age in Ethiopia. Therefore, adolescents (10-14 years) were excluded from subsequent analysis.

STEP 3

The activities outlined can be categorized into two distinct groups: non-productive activities and productive activities. Non-productive activities include personal care, which does not meet the third-party criterion and is therefore considered non-productive; employment for establishment, which involves contracted time already accounted for in national statistics; primary production activities not tied to an establishment; services for income and other goods production that are not associated with an establishment; and household maintenance, management, and shopping for one's own household. The latter activities, while not included in national income, would be counted if they were compensated in the market and Productive activities are those to which the third-party criterion can be applied. These include care for children, the sick, and the elderly and disabled individuals within one's own household; community service and assistance to other households

At this stage all non-SNA activities listed out and classified into three major categories, namely; unpaid domestic work, unpaid care and unpaid community service.

Major and specific unpaid activities in Ethiopian time use survey

Major extended SNA Activity Category	Specific activity (extended SNA activity)
Unpaid Services for Domestic Use	Food management Cleaning and upkeep of dwellings and surroundings Do-it-yourself decoration, maintenance and small repairs Care of textiles and footwear Shopping Travel related to provision of unpaid domestic services Fire Wood Collection Fetching Water
Unpaid Care Giving Services to Household Members	Childcare Adult care Travel related to unpaid caregiving services to household members Unpaid help to other households
Unpaid Community Services	Community-organized services Organized unpaid volunteer services Involvement in civic and related responsibilities Travel related to community service and help to other households

STEP 4

COMPUTATION OF TIME SPENT ON UCDW ACTIVITIES

The time-diary data recorded the minutes individuals spent on specific activity in 24 hours with one hour's interval. Thus, the total minute spent on UCDW 24 hours calculated as:

$Y_i = \sum_{i=1}^n X_i$, Where

Y_i represents total minute spent on activity i by person i , n = number of activity and X_i = minute spent on activity i during 24 hours. Specifically

Total time spent on domestic activity (DA_i) by single person in 24 hours

$$DA_i = \sum_{i=1}^n X_i$$

DA represent total minute spent on all domestic activity by person i , n represent number of domestic activity and X_i represent minute spent on domestic activity i

Total time spent on unpaid Care Activity (CA_i) by a single person in 24 hours

$$CA_i = \sum_{i=1}^n X_i, \text{ Where}$$

CA_i represent total time spent on care activity by individual i , n represent number of care activity and X_i represent duration on specific care activity (in minute).

Total time spent on unpaid community service (CS_i) by a single person in 24 hours

$$CS_i = \sum_{i=1}^n X_i, \text{ Where}$$

CS_i represent total minute spent on unpaid community service by person i in 24 hours, n represent number of unpaid community service and X_i represent.

Then grand total time spent on UCDW by person i in 24 hours calculated as the sum of total time spent on domestic activity (DA_i), care activity (CA_i) and community service (CS_i)

$$UCDW_i = DA_i + CA_i + CS_i$$

Since one of the objectives of our study is to measure the economic value of UCDW it is necessary to convert minute into hours. Thus, the total minute spent on UCDW scaled up to month and year by multiplying daily minute to 30 and 365 respectively, which subsequently divided by 60 to convert the minute into hours.

Annual hours spent on UCDW by person i = (total minute spent on specific activity*365)/60

STEP 5

imputation of appropriate hourly wage rate.

3.3.1 Data Analysis

The study uses established approaches to estimate the monetary value of Unpaid Care and Domestic Work (UCDW) in Ethiopia, thereby addressing its exclusion from formal economic metrics like GDP. This involves two key methods: the input valuation approach and output method. While an output-based method (valuing the goods and services produced) is theoretically possible, the lack of adequate data on the volume of non-market outputs makes it unfeasible. Consequently, this analysis utilizes input-based valuation approach, which derives value from time invested on unpaid activities. Here are more details.

Input-Based Valuation Approach

The methodology is straightforward and relies on multiplying the time individuals spend on unpaid activities by an appropriate wage. Time-Use Survey data, which provides details on how much time individuals devote to activities like cooking, cleaning, childcare, and caregiving, forms the foundation of this method. For example, if a woman spends five hours a day on childcare, and the hourly wage of a babysitter in Ethiopia is 20 ETB, the daily value of her unpaid childcare work is estimated at 100 ETB. This value is then scaled up to weekly, monthly, and annual figures, accounting for demographic subgroups such as age and gender.

This approach ensures a comprehensive valuation of UCDW by capturing the time devoted to domestic work, caregiving, and community-based unpaid activities. However, a key challenge is determining appropriate wage rates, as detailed national employment data may not always exist for the diverse unpaid activities performed within households.

Replacement Cost Approach

The Replacement Cost approach, a method within the input approach, estimates the value of unpaid care and domestic work (UCDW) by using the market wages of individuals performing similar tasks in paid roles. This approach operates on the assumption that the time spent on unpaid tasks could be replaced by hiring domestic workers such as maids or babysitters. Specifically, the Generalist Replacement Cost method applies the wages of general household workers to value a wide range of unpaid activities. For instance, the average salary of domestic workers is assigned to tasks like cleaning, cooking, and childcare to estimate the value of unpaid childcare. By aligning these valuations with the market context of the tasks, this method provides a more accurate and realistic representation of UCDW's economic contribution, highlighting its significance within the broader economy.

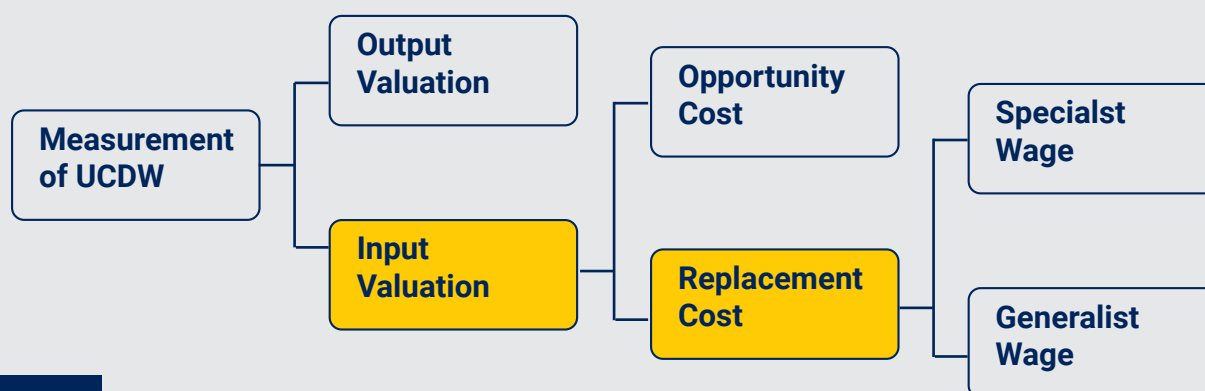


Figure 2 Method of Valuing UCDW

Contribution of UCDW to GDP estimation procedure:

The analysis employs both the input-based valuation and Replacement Cost approaches to estimate the monetary value of UCDW across the Ethiopian population aged 15 and older. The procedure involves applying hourly wage rates, derived from national employment surveys to the time-use data for unpaid domestic work, caregiving, and community activities. This methodology quantifies the economic contributions of UCDW on a national scale, providing a comprehensive framework for understanding the often-overlooked value of UCDW in supporting households and the broader economy. For those seeking a deeper understanding of

the methodology, including detailed econometric specifications, further information is available in Annex 2. Specifically, the study utilized the 2022 urban employment and unemployment survey to calculate the average wage rate of economic activities. This market wage rate consequently was then used to impute a monetary value for UCDW activities. The resulting individual-level values were aggregated to produce a total annual national value for UCDW. Since the latest urban employment and unemployment survey was collected in 2022, the study calculated the share of UCDW based on the 2022 gross domestic product.

3.3.1 Valuation Methodology for Unpaid Care Work

To estimate the economic value of unpaid care and domestic work (UCDW), this study employed a dual-method approach by linking occupational wage data from the 2022 Urban Employment Survey with activity records from the 2013 Ethiopian Time Use Survey (ETUS). The methodology addressed a critical data gap - while ETUS documented 99 distinct employment activities, it lacked corresponding wage information.

Data Integration and Valuation Process:

The integration of time-use data with wage information involved a systematic two-stage process:

1 WAGE MATCHING

Wage data were sourced from the 2022 Urban Employment Survey, which provided monthly wages for 431 occupational categories classified according to the International Standard Classification of Occupations (ISCO-08). These occupations were mapped to employment activities recorded in the ETUS through the following methods:

- **Direct matches:** (e.g., “Domestic workers” in both surveys)
- **Weighted averages** (e.g., deriving a wage for “Legislators/senior officials” from four related urban survey occupations)

2 VALUATION APPROACHES

Two distinct methodological approaches were employed to assign monetary value to unpaid activities:

- **Opportunity Cost Method:** Used individual-specific wages based on their primary occupation in ETUS (see Annex 3B for full mapping).
- **Replacement Cost Method:** Applied standardized wages for UCDW-equivalent market occupations (e.g., maids for cleaning, cooks for meal preparation) with age/sex adjustments (Annex 3A).

4 FINDINGS AND ANALYSIS

4.1 TIME SPENT ON PRODUCTIVE ACTIVITIES, UNPAID CARE, AND DOMESTIC WORK

4.1.1 Allocation of Time for Productive Activities and Unpaid Care and Domestic Work

The allocation of time between productive activities and Unpaid Care and Domestic Work (UCDW) reflects entrenched gender roles, societal expectations, and disparities in resources access. Table 1 details the hours worked by gender across different age groups, marital status, regions, and places of residence. The data underscores significant gender-based disparities in labor allocation, as well as differences influenced by geographic and demographic factors. These patterns have substantial implications for socioeconomic development, affecting productivity, equity, and overall well-being.

The data reveals a stark gendered division of labor. Men dedicate more time to productive activities (39 hours per week on average) compared to women (30 hours). Conversely, women disproportionately shoulder the burden of UCDW, averaging 41 hours weekly—nearly double the 21 hours contributed by men. This unequal distribution of work reinforces traditional gender roles, where men are primarily involved in income-generating activities while women take on the bulk of caregiving and household responsibilities. Such disparities limit women's ability to participate fully in formal economic opportunities, creating long-term gender inequities in income and career advancement.

These findings are consistent with global evidence. A study in 14 European countries by Vargha et al. (2017) revealed a persistent gender gap in UCDW across all age categories. Women in their 30s and 40s spent an average of 35 hours per week on UCDW, compared to men, who spent only 17 hours. This data highlights that women are net providers of time transfers throughout their lives, with working-age women contributing the most in net terms, while men remain net beneficiaries for the majority of their lives. Similarly, a study by UN Women (2023) in Mali found that women contribute nearly 80% of unpaid services—four times more than men, Producing an average 21.6 hours of unpaid work per week, compared to only 5.7 hours for men.

Analysis by age group shows that individuals aged 18–60 are the most engaged in both productive activities and UCDW. Men in this group work an average of 40 hours in productive activities and 22 hours in UCDW, while women work 30 and 43 hours, respectively. Adolescents (15–17) contribute fewer hours overall, with male adolescents spending 34 hours on productive activities and 17 hours on UCDW, compared to female adolescents' 26 and 30 hours. Among older adults (61+), the gap narrows slightly; men work 35 hours in productive activities and 20 hours in UCDW, while women work 24 and 26 hours, respectively. These patterns suggest that the middle-age group bears the greatest dual burden of economic productivity and caregiving responsibilities. The study in Mali by UN Women (2023) found that women in their 30s shoulder the greatest burden of domestic work and caregiving, spending an average of 33 hours per week on these tasks, compared to only 6 hours per week for men in the same age group.

An analysis of hours worked for productive activities and UCDW reveals pronounced differences by sex and marital status. Across all marital categories, males consistently report more hours in productive activities compared to females, with those living together showing the highest disparity (42 hours for males versus 29 for females). In contrast, females overwhelmingly take on a greater share of unpaid care and domestic work across all groups. Married women exhibit the highest burden, dedicating 47 hours weekly to these tasks, nearly double the 23 hours reported by married men. Similarly, among those living together, women contribute 45 hours to unpaid work, in stark contrast to the 18 hours reported by men. Widowed individuals exhibit the smallest gender gap in unpaid care work, with men and women contributing 22 and 29 hours, respectively.

Table 1

Hours Worked in Productive Activities and Unpaid Care and Domestic Work in seven days by Gender, Age Group, Region, and Place of Residence

Background characteristics		Hours worked for productive activities per 7 days		Total Unpaid Care and Domestic Work per 7 days		Unweighted number
		Male	Female	Male	Female	
Age group	15-17	34	26	17	30	4,438
	18-60	40	30	22	43	36,384
	61+	35	24	20	26	3,646
Marital Status	Never Married	38	31	17	29	11,601
	Married	40	29	23	47	26,985
	Divorced	38	34	29	33	1,990
	Widowed	32	29	22	29	3,163
	Separated	40	32	25	40	636
	Live Together	42	29	18	45	93
Region	Tigray	38	30	19	34	4,585
	Afar	53	40	17	46	2,299
	Amhara	40	28	25	40	7,486
	Oromia	37	28	20	42	8,361
	Somali	49	38	17	47	2,972
	Benishangul-Gumuz	34	27	21	38	2,402
	SNNPR	37	30	20	42	6,747
	Gambella	38	32	15	35	1,725
	Harari	45	39	13	34	1,556
	Addis Ababa	52	50	14	36	4,287
	Dire Dawa	49	42	15	38	2,048
Place of residence	Urban	48	38	15	33	13,284
	Rural	37	28	23	43	31,184
	Total	39	30	21	41	44,468

Regional disparities in work hours are pronounced, reflecting differences in economic structures, cultural practices, and access to services. Addis Ababa records the highest hours worked for productive activities, with men working 52 hours and women 50 hours, indicative of the city's formal employment opportunities. In contrast, rural regions such as Afar and Somali exhibit higher averages for UCDW, with women spending 46 and 47 hours, respectively. These elevated domestic workloads may stem from limited access to

infrastructure and social services, requiring manual effort for essential tasks like fetching water and cooking.

Place of residence also plays a significant role in determining time allocation. Urban residents, both male and female, dedicate more hours to productive activities (48 and 38 hours, respectively) than their rural counterparts (37 and 28 hours). Conversely, rural residents, particularly women, dedicate far more time to UCDW (43 hours compared to 33 hours for urban women). The rural-urban gap in UCDW is largely attributable to disparities in infrastructure availability, such as access to running water, electricity, and childcare facilities, which ease the burden of domestic work in urban areas.

The interplay of gender and residence exacerbates labor inequalities. Rural women face dual disadvantage: they spend fewest hours in productive activities (28 hours) while shouldering on the heaviest UCDW burden (43 hours). These dynamic limits their opportunities to engage in paid work, perpetuating cycles of poverty and dependence. Urban women, although working fewer hours on UCDW, still perform more domestic work (33 hours) than urban men (15 hours), pointing to persistent gender-based disparities even in more developed settings.

The unequal distribution of labor has profound implications for gender equity. Women's overrepresentation in UCDW limits their access to education, skill development, and employment opportunities. Men's underrepresentation in domestic work perpetuates the traditional norms that assign a disproportionate caregiving burden to women. Addressing this requires policies that promote shared responsibilities within households, alongside investments in time-saving infrastructure, are necessary to reduce these disparities.

From an economic perspective, the high UCDW burden on women represents a significant loss of potential productivity to the formal economy, leading to a loss of potential productivity. Regions with higher domestic labor burdens, such as Afar and Somali, may experience slower economic growth due to the reduced availability of women for market-based activities. Additionally, rural areas with heavy UCDW workloads face compounded challenges in economic development, as a significant portion of the population remains excluded from productive labor markets.

The significant rural-urban disparity in UCDW underscores the critical role of infrastructure in reducing unpaid labor. Targeted investments in rural areas, such as improved access to water, electricity, and childcare services, are essential to alleviate the heavy time burden on women and allow for greater participation in economic activities. Policies that encourage shared domestic responsibilities, such as paternity leave and flexible work arrangements, can also help address gender imbalances.

The repercussions of this unequal distribution of the burden extend beyond economics, with profound social implications for health, education, and intergenerational equity. The physical and emotional exhaustion from excessive hours on unpaid labor limits women's capacity for self-care and personal development. For girls, particularly in rural areas, being pulled into domestic work often comes at the expense of their education, perpetuating cycles of inequality and limiting their future opportunities.

Overall, the data reveals significant inequities in the allocation of time for productive activities and UCDW across gender, age, region, and residence. These disparities hinder economic growth and perpetuate social inequalities, particularly for women and rural populations.

4.1.2 Participation in Domestic Work, Unpaid Care, and Community Services

Participation in domestic work, unpaid care, and community services varies significantly across sex and place of residence, reflecting deeply ingrained gender roles, access to resources, and socioeconomic conditions. Table 2 shows these disparities and the statistical significance of the differences in time allocation. This analysis examines the patterns evident in the data, their structural drivers, and their implications for socioeconomic development, highlighting how rigid gender roles constrain individual potential and national progress growth, emphasizing the critical need for targeted interventions.

The data reveals significant gender disparity in domestic work. Women consistently perform more hours across all categories of domestic tasks, such as food management (131.3 hours vs. 7.6 hours for men), cleaning (18.5 vs. 2.1), and care of textiles (12.4 vs. 2.3). This division reflects traditional gender roles that disproportionately assign domestic responsibilities to women. Men's participation is more pronounced in less frequent, mobility-based tasks such as firewood collection (9.6 hours) and travel for unpaid domestic services (17.5 hours), which are often perceived as physically demanding. The stark differences emphasize the unequal burden of domestic labor, which limits women's capacity to engage in formal employment or other productive activities.

A clear rural-urban dichotomy further shapes domestic work. Rural residents spend more time on tasks such as fetching water (18.1 hours) and firewood collection (17.3 hours) compared to urban dwellers (4.3 and 3.0 hours, respectively). These tasks are more time-intensive in rural areas due to limited access to basic infrastructure like running water and electricity. Urban residents, however, spend more time on activities such as cleaning (14.8 hours) and care of textiles (14.4 hours), reflecting differences in lifestyle and domestic expectations. The higher burden of basic subsistence tasks in rural areas restricts economic opportunities, particularly for women.

Unpaid care work also shows striking gender disparities. Women dedicate far more time to childcare (71.6 hours) than men (7.7 hours), while adult care also shows a notable gap—1.2 hours for women compared to 0.6 hours for men. These patterns reflect deep rooted societal expectations that position caregiving as a predominantly female responsibility. Travel related to unpaid caregiving is slightly higher among men (1.3 hours) than women (0.8 hours), which may indicate that caregiving tasks requiring mobility are often assigned to men. The imbalance in unpaid care work reinforces women's time poverty and limits their ability to pursue education, skills development, or economic opportunities.

Table 2**Participation in domestic work, unpaid care and community services by sex and place of residence**

	Gender		Place of Residence		Total
	Male	Female	Male	Female	
Domestic work					
Food management	7.6	131.3	63.0	73.8	71.3
Cleaning and upkeep of dwellings and surroundings	2.1	18.5	14.8	9.3	10.6
Do-it-yourself decoration, maintenance and small repairs	0.8	2.6	2.9	1.4	1.7
Care of textiles and footwear	2.3	12.4	14.4	5.4	7.5
Shopping	5.3	9.6	5.4	8.2	7.5
Travel related to provision of unpaid domestic services	17.5	18.7	7.7	21.3	18.1
Fire Wood Collection	9.6	18.1	3.0	17.3	14.0
Fetching Water	5.0	24.3	4.3	18.1	14.9
Unpaid care					
Travel for unpaid caregiving for household members	1.3	0.8	1.1	1.0	1.1
Childcare	7.7	71.6	31.4	43.4	40.6
Adult care	0.6	1.2	0.7	1.0	0.9
Community service					
Unpaid help to other households	9.1	4.4	3.4	7.7	6.7
Community-organized services	8.4	3.2	1.4	7.0	5.7
Organized unpaid volunteer services	1.8	0.5	0.2	1.4	1.1
Attendance in meetings	5.1	1.2	2.7	3.2	3.1
Involvement in civic and related responsibilities	0.7	0.2	0.2	0.5	0.4
Travel related to community service and help to other households	7.1	3.4	2.5	6.0	5.2
Unweighted number	21,340	23,128	13,284	31,184	44,468

Care responsibilities also differ by place of residence. Rural residents spend more time on childcare (43.4 hours) than urban residents (31.4 hours), likely due to larger family sizes and fewer childcare facilities in rural areas. Conversely, urban residents report slightly higher time spent on travel related to unpaid caregiving (1.1 hours vs. 1.0 hours), which may reflect commuting to caregiving activities in urban settings. These differences demonstrate the critical influence of infrastructure and service availability on how time is allocated for unpaid care work. Limited access to formal childcare in rural areas increases the caregiving burden, particularly for women.

Men are more actively involved in community service than women, as seen in unpaid help to other households (9.1 hours vs. 4.4 hours), community-organized services (8.4 vs. 3.2), and attendance in meetings (5.1 vs. 1.2). These trends may reflect cultural and social norms that prioritize men's involvement in public and civic activities, while women are confined to domestic and caregiving roles. Women's limited participation in community services may also result from their time constraints due to domestic and care responsibilities. This exclusion hinders women's opportunities to contribute to community decision-making and leadership roles.

Rural residents report higher participation in community services, such as unpaid help to other households (7.7 hours vs. 3.4 hours for urban residents) and community-organized services (7.0 hours vs. 1.4 hours). These differences may be attributed to stronger communal ties and a greater reliance on informal support networks in rural areas. However, urban residents spend more time on civic and related responsibilities (2.7 hours vs. 0.2 hours for rural residents), reflecting the structured nature of civic engagement in urban settings. These trends indicate the varying nature of community engagement based on geographic context.

The disparities in participation in domestic work, unpaid care, and community services have significant implications for socioeconomic development. The disproportionate burden placed on women and rural residents restricts their participation in productive economic activities, reinforcing both gender and spatial inequities. Women's time poverty, in particular, constrains their educational and professional advancement, perpetuating cycles of inequality. Furthermore, the reliance on unpaid labor in rural areas slows progress in achieving gender equity and economic modernization. Addressing these disparities requires targeted investments in infrastructure and services, alongside policies that promote shared responsibilities within households.

The national survey data reveals profound differences in participation in domestic work, unpaid care, and community services across gender and residence, reflecting entrenched inequalities in time use. Women and rural residents bear a disproportionate burden, limiting their opportunities for socioeconomic advancement. Fostering gender and geographic equity in labor distribution is not only a matter of fairness but also a necessity for sustainable socioeconomic growth.

4.2 ESTIMATING THE MONETARY VALUE OF UNPAID WORK

The monetary valuation of unpaid work is a crucial exercise in recognizing the often-overlooked economic contributions of domestic labor and caregiving, activities predominantly undertaken by women. This section focuses on estimating the monetary value of unpaid work using two widely accepted methods: the Replacement Cost method and the Opportunity Cost method. Both approaches rely on detailed data from the Ethiopian Time Use Survey (TUS, 2013) to categorize specific unpaid activities—referred to as extended SNA (System of National Accounts) activities—and wage information derived from the 2022 Ethiopian Employment and Unemployment Survey (EUES). Under the Replacement Cost method, the value of unpaid work is estimated by identifying matching market-based occupations (e.g., food preparation, cleaning, and caregiving) and assigning the corresponding wage rates from the EUES dataset. This approach effectively quantifies how much it would cost to hire someone to perform the same tasks, thereby reflecting their economic value in market terms. The Opportunity Cost method, in contrast, evaluates unpaid work by estimating the income individuals forego by engaging in unpaid domestic and caregiving activities instead of participating in paid employment. Wage data from the EUES—stratified by occupation, age, and gender—are used to capture the Opportunity Cost of time spent on these activities. Together, these two valuation methods provide a comprehensive perspective on the economic significance of unpaid labor in Ethiopia, helping to bridge the gap between formal economic measures and the substantial, yet invisible, contributions of unpaid work to household and national welfare.

4.2.1 Estimating the Monetary Value of Unpaid Work based on the Replacement Cost Method

The Replacement Cost method provides a practical approach to estimating the monetary value of unpaid work by determining how much it would cost to hire someone to perform equivalent tasks in the labor market. In this analysis, unpaid activities classified as extended SNA (System of National Accounts) categories are derived from the Ethiopian Time Use Survey (TUS, 2013). These include tasks such as food preparation, house cleaning, caregiving, and other forms of domestic and community services. Corresponding market-based occupations and their wage rates are identified using data from the 2022 Ethiopian Employment and Unemployment Survey (EUES), as detailed in Annex 3A. By assigning market-equivalent wages to unpaid work activities, the Replacement Cost method quantifies the economic contribution of unpaid labor in monetary terms. This approach not only provides a clearer picture of the hidden value of unpaid work but also underscore its significance in the broader economic context, particularly in societies like Ethiopia, where such contributions play a vital role in household and community functioning.

Table 3

Annual value of unpaid work (ETB) and GDP share by demographic group (Replacement Cost Method)

	Male	Female	Total	Percentage share of GDP
Age group	15-17	23,448,141,421	36,016,982,388	59,465,123,808 1.0%
	18-60	393,038,088,645	519,395,883,986	912,433,972,631 14.8%
	61+	33,437,098,624	33,891,585,372	67,328,683,996 1.1%
Residence	Urban	86,220,436,125	128,402,233,154	214,622,669,279 3.5%
	Rural	363,702,892,564	460,902,218,592	824,605,111,156 13.3%
Region	Tigray	21,373,438,886	36,103,000,770	57,476,439,656 0.9%
	Afar	6,382,737,624	9,958,497,881	16,341,235,505 0.3%
	Amhara	145,351,122,584	152,717,372,409	298,068,494,993 4.8%
	Oromia	156,537,773,080	216,518,365,456	373,056,138,536 6.0%
	Somali	5,732,619,372	13,268,446,901	19,001,066,272 0.3%
	Benishangul-Gumuz	4,384,817,888	6,711,985,265	11,096,803,153 0.2%
	SNNPR	87,325,792,268	120,395,595,206	207,721,387,474 3.4%
	Gambella	1,552,703,533	2,613,111,873	4,165,815,406 0.1%
	Harari	1,347,790,618	1,723,680,271	3,071,470,889 0.0%
	Addis Ababa	18,034,365,637	26,262,357,593	44,296,723,229 0.7%
	Dire Dawa	1,900,167,199	3,032,038,123	4,932,205,322 0.1%
Total		449,923,328,689	589,304,451,746	1,039,227,780,436 16.8%
		GDP 2022 in USD		118,970,000,000
Note		Average exchange rate in 2022 (1USD to ETB) ⁶		51.9425
		2022 GDP in ETB		6,179,599,225,000

⁶ <https://www.exchangerates.org.uk/USD-ETB-spot-exchange-rates-history-2022.html>

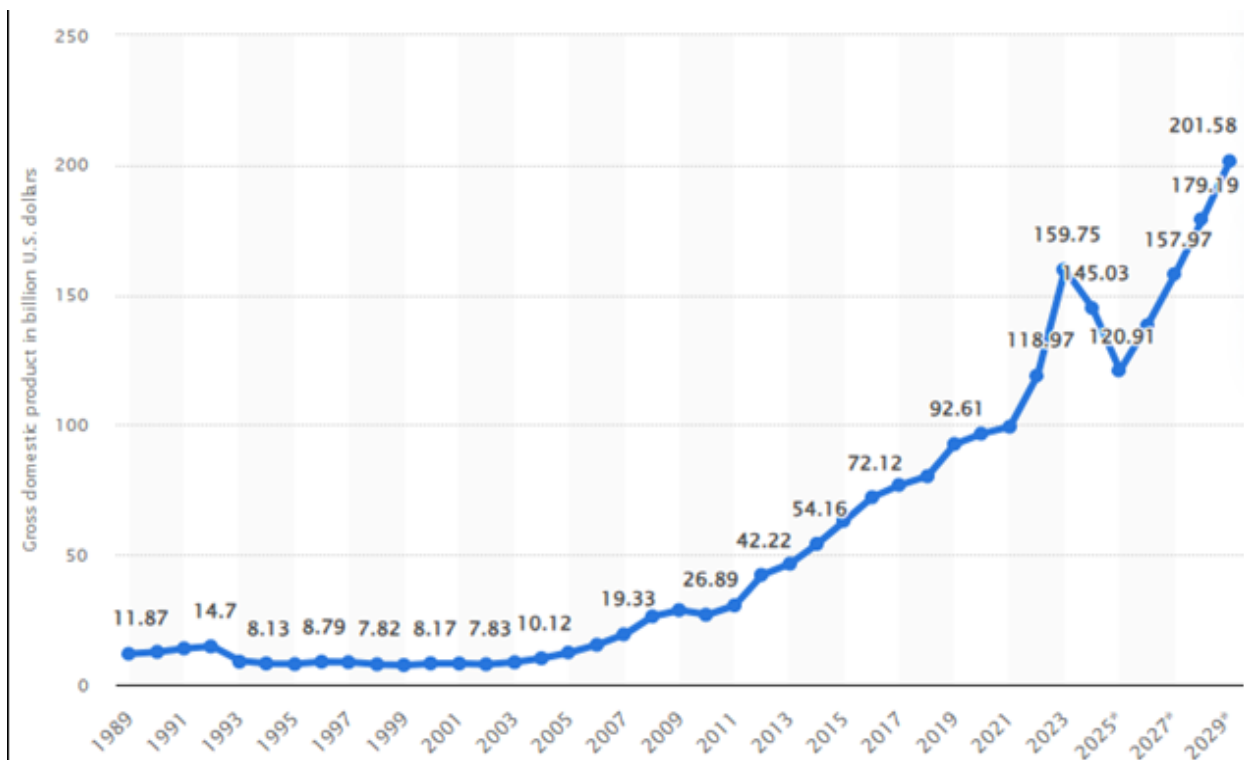


Figure 3: Gross Domestic Product (GDP) in current prices from 1989 to 2029 ⁷

The total estimated annual wage value of unpaid domestic work, care, and community services in Ethiopia, calculated using the Replacement Cost Method, amounts to ETB 1,039.23 billion, equivalent to 16.8% of the 2022 GDP. This substantial figure highlights the hidden economic importance of unpaid work—especially within Ethiopia’s labor force and gender dynamics—and underscores how unpaid work, long excluded from official economic statistics, represents a significant share of the country’s productive activities and GDP.

Gender differences reveal a striking imbalance: women contribute ETB 589.30 billion (9.5% of the GDP), while men contribute ETB 449.92 billion (7.3% of the GDP). This disparity demonstrates the disproportionate burden of unpaid labor borne by women, reflecting societal norms and cultural practices where domestic work and caregiving are largely viewed as female responsibilities. The results call for targeted interventions to reduce gender-based labor inequities and to ensure recognition of women’s contributions to economic and social contributions.

Age-based analysis shows that the largest share of unpaid work is contributed by individuals aged 18-60, with a combined value of ETB 912.43 billion (14.8% of GDP). This group—representing the economically active population—often balances paid employment with unpaid responsibilities, highlighting the double burden of productive and reproductive work. By contrast, individuals aged 15-17 and 61+ are much smaller, at ETB 59.46 billion (1.0% of GDP) and ETB 67.33 billion (1.1% of GDP), respectively. These figures emphasize

A breakdown by place of residence shows a significant rural-urban divide in the contribution of unpaid work. Rural areas account for ETB 824.61 billion (13.3% of GDP), compared to ETB 214.62 billion (3.5% of GDP) from urban areas. The rural dominance reflects the predominance of subsistence livelihoods and limited access to formal employment opportunities, which make unpaid work a critical part of livelihoods. In contrast, the higher per capita valuation in urban areas stems from elevated wage rates and monetization of domestic tasks.

Regionally, Oromia contributes the largest share of unpaid work, valued at ETB 373.06 billion (6.0% of GDP), followed by Amhara (ETB 298.07 billion, 4.8% of GDP) and SNNPR (ETB 207.72 billion, 3.4% of GDP). These regions have large populations and significant rural areas, where unpaid work is integral to daily life. In contrast, smaller regions such as Harari (ETB 3.07 billion) and Gambella (ETB 4.17 billion) contribute relatively little, reflecting smaller populations and lower levels of domestic activity. The regional disparity underscores the need for context-specific policy design that accounts for demographic and livelihood differences.

⁷ <https://www.statista.com/statistics/455080/gross-domestic-product-gdp-in-ethiopia/>

The table further shows the breakdown of unpaid work by activity type. Domestic work represents the largest share—ETB 417.99 billion (6.8% of GDP)—including tasks like cooking, cleaning, and household maintenance. Unpaid care activities, such as childcare and eldercare, contributes ETB 83.76 billion (1.4% of GDP), while community services add ETB 98.78 billion (1.6% of GDP). Although domestic activities dominate unpaid work, but caregiving and community service also hold significant economic value, warranting their inclusion in national accounting systems. International comparisons highlight similar patterns. Studies applying the Replacement Cost approach in other countries found unpaid care and domestic work (UCDW) to represent substantial portions of the GDP—22% in South Korea and 10% in Bhutan (Suh, 2021), 20% in Colombia, in 32% Uruguay (Urdinola and Tovar, 2019), 10.3% in Sri Lanka (Gunewardena and Ashvin, 2017), and 22.3% in Mali (UN estimates).

The data presents an undeniable case for policy reform. The significant 16.8% GDP contribution of unpaid work—a burden disproportionately borne by women—exposes a systemic flaw in how economic value is measured and rewarded. This evidence demands policies that formally recognize, reduce, and redistribute unpaid care and domestic work to address gender inequalities in labor force. In Ethiopia, where unpaid work sustains a large portion of rural households and underpins social cohesion, recognizing its value is critical.

The Replacement Cost Method provides a robust estimate, aligning with labor market realities and existing wage structures. Nevertheless, complementing it with Opportunity Cost Method analyses would capture the broader economic implications of forgone opportunities. This dual approach would offer a more nuanced understanding of unpaid work's contribution to GDP and its role in shaping Ethiopia's economic and social policies.

4.2.2 Estimating the Monetary Value of Unpaid Work based on Opportunity Cost Method

The Opportunity Cost method offers an alternative approach to estimating the monetary value of unpaid work by focusing on the income individuals forgo when dedicating time to unpaid domestic and caregiving activities instead of engaging in paid employment. This method emphasizes the economic trade-offs faced by individuals, particularly women, who disproportionately bear the burden of unpaid responsibilities. For this analysis, wage data derived from the 2022 Ethiopian Employment and Unemployment Survey (EUES), as detailed in Annex 3B, were used to estimate the Opportunity Cost of time spent on various unpaid tasks. By assigning wage rates reflective of the potential earning of individuals based on their skills, occupations, and demographic characteristics, this method estimates the value of unpaid work as the lost opportunity for earning an income in the labor market. The Opportunity Cost method not only underscores the substantial economic contributions embedded in unpaid work but also its broader implications for labor force participation, income inequality, and gender disparities. In Ethiopian context, it provides critical insights into the hidden costs of unpaid labor —costs that shape both household welfare and national economic outcomes.

Table 3

Annual value of unpaid work (ETB) and GDP share by demographic group (Opportunity Cost Method)

		Male	Female	Total	Percentage share of GDP
Age group	15-17	32,579,353,944	39,532,684,610	72,112,038,554	1.2%
	18-60	592,965,387,303	628,934,775,199	1,221,900,162,502	19.8%
	61+	52,153,057,326	48,710,731,600	100,863,788,926	1.6%
Residence	Urban	133,277,039,646	163,578,061,520	296,855,101,166	4.8%
	Rural	544,420,758,928	553,600,129,888	1,098,020,888,816	17.8%

Region	Tigray	27,530,762,422	42,837,945,229	70,368,707,652	1.1%
	Afar	8,197,509,499	10,537,489,747	18,734,999,247	0.3%
	Amhara	186,146,020,674	164,155,439,455	350,301,460,129	5.7%
	Oromia	251,910,422,086	271,157,895,184	523,068,317,269	8.5%
	Somali	10,569,944,310	16,940,822,604	27,510,766,915	0.4%
	Benishangul-Gumuz	7,239,629,517	8,747,258,170	15,986,887,687	0.3%
	SNNPR	148,396,509,373	158,267,762,490	306,664,271,864	5.0%
	Gambella	2,810,737,377	3,204,201,855	6,014,939,232	0.1%
	Harari	2,278,891,603	2,087,095,811	4,365,987,414	0.1%
	Addis Ababa	29,817,620,850	35,590,335,554	65,407,956,404	1.1%
	Dire Dawa	2,799,750,861	3,651,945,308	6,451,696,169	0.1%
Total		677,697,798,573	717,178,191,408	1,394,875,989,981	22.6%
		11.0%	11.6%	22.6%	
		GDP 2022 in USD		118,970,000,000	
Note	Average exchange rate in 2022 (1USD to ETB)			51.9425	
		2022 GDP in ETB		6,179,599,225,000	

The total estimated annual wage value of unpaid domestic work, care, and community services in Ethiopia, calculated using the Opportunity Cost Method, amounts to ETB 1,394.88 billion, representing 22.6% of the 2022 GDP. This figure illustrates the immense economic value of unpaid labor, which often goes unaccounted for in conventional GDP measurements. The higher percentage share compared to the Replacement Cost Method reflects the broader economic implications of unpaid work, particularly in terms of forgone earnings for those engaged in these activities.

The gender breakdown reveals that women contribute ETB 717.18 billion (11.6% of GDP), while men contribute ETB 677.70 billion (11.0% of GDP). Although men's contributions are significant, women's unpaid labor surpasses theirs, highlighting persistent gender disparities in labor distribution. This gap reflects entrenched societal norms that assign domestic and caregiving responsibilities disproportionately to women. The Opportunity Cost Method further amplifies this disparity by accounting for the higher earnings potential women forgo when performing unpaid tasks instead of engaging in paid labor.

When analyzed by age group, individuals aged 18-60 dominate the contribution, with ETB 1,221.90 billion (19.8% of GDP). This group encompasses the prime working-age population, who balance unpaid responsibilities with potential paid employment opportunities. Contributions from adolescents aged 15-17 total ETB 72.11 billion (1.2% of GDP), while those aged 61+ contribute ETB 100.86 billion (1.6% of GDP). These figures reveal the pervasive nature of unpaid work across all age groups, with the working-age population shouldering the greatest economic trade-offs.

A stark rural-urban divide emerges in the data. Rural areas contribute ETB 1,098.02 billion (17.8% of GDP), compared to ETB 296.86 billion (4.8% of GDP) from urban areas. This reflects the higher prevalence of unpaid work in rural settings, where traditional labor structures and subsistence agriculture dominate. Urban areas, despite contributing a smaller share, often see higher Opportunity Costs per individual due to greater wage differentials in urban labor markets. The divide highlights the distinct economic dynamics between rural and urban regions.

At the regional level, Oromia accounts for the largest share of unpaid work, valued at ETB 523.07 billion (8.5% of GDP), followed by Amhara (ETB 350.30 billion, 5.7% of GDP) and SNNPR (ETB 306.66 billion, 5.0% of GDP). These regions are characterized by large populations and extensive rural areas where unpaid work is vital for household subsistence. In contrast, smaller regions such as Harari (ETB 4.37 billion) and

Gambella (ETB 6.01 billion) contribute minimally due to their smaller populations and lesser reliance on unpaid labor. These disparities reflect the influence of demographic and cultural factors in shaping unpaid work contributions across regions.

The Opportunity Cost Method assigns higher economic value to unpaid activities by factoring in the forgone earnings of individuals. Domestic work and caregiving activities dominate, particularly in rural areas where formal employment opportunities are scarce. The method emphasizes the societal costs of unpaid labor by linking it to what individuals might have earned if engaged in market-based activities. This approach broadens the scope of analysis, indicating the need for social support systems that reduce the unpaid labor burden, especially on women. Although, the overall share of UCDW to GDP, based on the Opportunity Cost approach, was found to be lower compared to estimates from other countries—such as 59% in South Korea (Suh, 2021) and 42% in Sri Lanka (Gunewardena & Ashvin, 2017)—it nonetheless reveals the substantial hidden value of unpaid labour in the national economy..

In the context of Ethiopia, where unpaid labor sustains rural livelihoods and supports informal economies, the Opportunity Cost method provides critical insights into its broader economic impact. While this method captures forgone earnings, future research could complement these findings with other approaches, such as time-use surveys, to provide a more comprehensive understanding. Incorporating unpaid labor into national economic planning would ensure that these contributions are no longer invisible and that policy interventions address the needs of those who bear the burden of unpaid work.

4.2.3 Sector-Specific Contributions

The results demonstrate a clear distinction between the Replacement Cost Approach and the Opportunity Cost Approach in estimating the GDP contribution of unpaid care, domestic work, and community service. Domestic work accounts for the largest disparity, with the Replacement Cost Approach estimating its contribution at 6.8% of GDP, while the Opportunity Cost Approach nearly doubles this value at 12.1%. This significant gap likely arises from the methods used to assign value. The Replacement Cost Approach bases its valuation on the market wage rates for workers performing similar tasks, such as cleaners or cooks, typically associated with lower wages in Ethiopia. In contrast, the Opportunity Cost Approach values the time spent on these activities based on the potential income individuals could earn in the labor market, which may be considerably higher depending on the skills and earning potential of those performing the unpaid work. As a result, the Opportunity Cost Approach places greater emphasis on the economic value of individuals' foregone labor market opportunities, particularly for those with higher earning capacity.

For unpaid care and community services, the differences between the two valuation methods are relatively

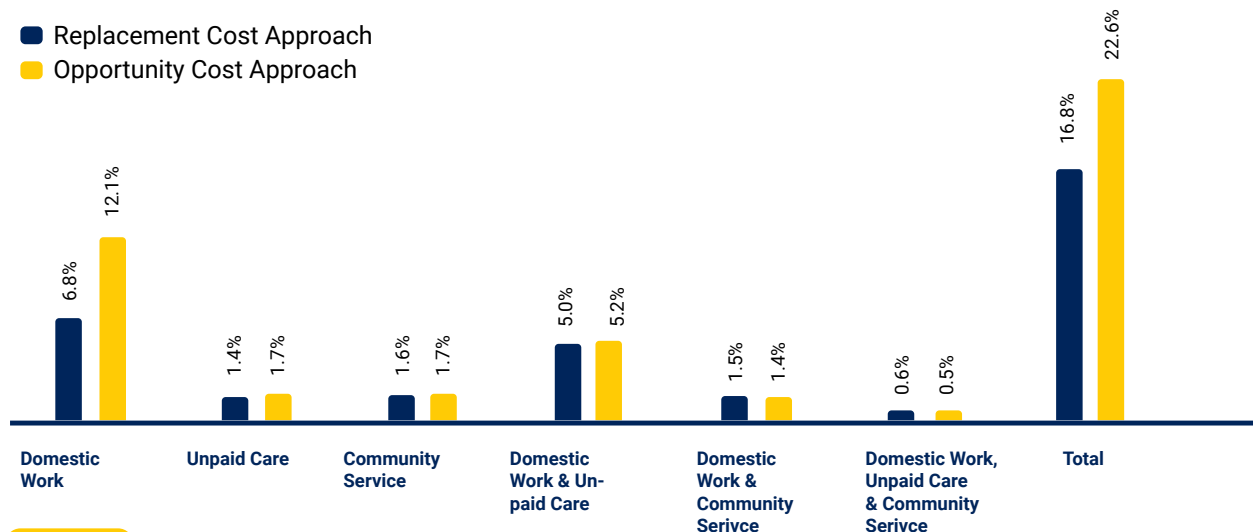


Figure 4

Percentage Share of Unpaid Care, Domestic Work, and Community Service in GDP by Activity Category Using Replacement and Opportunity Cost Methods

modest. Under the Replacement Cost approach, unpaid care contributes 1.4% of GDP, compared to 1.7% under the Opportunity Cost approach. Similarly, community services account for 1.6% and 1.7% of GDP, respectively. The smaller variation could be attributed to the relatively consistent valuation of caregiving and community work across the two methods, as these activities are often tied to societal norms and expectations, limiting wage differentials. However, when combining domestic work with unpaid care or community services, the results diverge again. For example, domestic work and unpaid care together account for 5.0% under the Replacement Cost approach but 5.2% under the Opportunity Cost approach, reflecting the cumulative impact of higher Opportunity Costs for domestic tasks. The total GDP contribution reaches 16.8% with the Replacement Cost approach and 22.6% with the Opportunity Cost approach, underscoring the substantial influence of the valuation method on the final result. This difference highlights the broader implications for policy, as it may affect how governments or institutions prioritize and support unpaid care and domestic work in economic planning.

4.4 SOCIOECONOMIC IMPACT OF UNPAID CARE AND DOMESTIC WORK

In this section, two distinct regression models are employed to assess the socioeconomic impact of Unpaid Care and Domestic Work (UCDW) on individuals' engagement in both non-productive (social interaction) and productive (economic) activities. The first model examines the factors influencing the time spent on non-productive activities, including attending cultural events, engaging in hobbies or games, participating in indoor and outdoor sports, consuming mass media, and personal care and maintenance. The second model explores the determinants of hours worked in productive activities during the reference week. In both models, the total time spent on UCDW (measured in minutes per day) serves as the key independent variable, capturing how time devoted to unpaid care and domestic tasks influences individuals' ability to participate in other aspects of life. Additional independent variables in both models include residence (urban or rural), age, highest grade completed, household size, sex (male/female), and the presence of children under six years of age. By analyzing these relationships, we aim to shed light on how unpaid care work not only affects the personal well-being and time use of individuals but also has broader implications for labor market participation, social engagement, and economic productivity.

4.4.1 Factors Influencing Time Spent on Non-Productive Activities

The regression model (Table 1) provides an in-depth understanding of the factors influencing the time spent on non-productive activities in Ethiopia, including attending cultural events, engaging in hobbies and games, participating in sports, consuming mass media, and personal care activities. These activities are crucial for individual well-being, social cohesion, and cultural development. By examining various demographic and socio-economic variables, the model offers insights into how different groups allocate their time and how these patterns can inform broader social development policies. The findings highlight the interplay of residence, age, education, household dynamics, gender, and unpaid care work in shaping non-productive time use.

Table 4

Regression Analysis of Factors Influencing Time Spent on Non-Productive Activities (Cultural Events, Hobbies, Sports, Mass Media, and Personal Care)

	Unstandardized Coefficients		Standardized Coefficients	t	Total
	B	Std. Error	Beta		
(Constant)	871.599	0.622		1400.528	0.000
Residence (urban/rural)	17.825	0.211	0.031	84.543	0.000
Age	3.326	0.007	0.164	449.159	0.000
Highest Grade Completed	-1.337	0.011	-0.047	-126.788	0.000
Household size	-5.962	0.053	-0.047	-112.596	0.000

Sex (male/female)	24.518	0.257	0.033	95.360	0.000
Time spent on UCDW minutes per day	-0.342	0.001	-0.203	-619.557	0.000
Presence of children under 6 years of age in the household (no/yes)	28.550	0.218	0.051	130.678	0.000

The analysis shows that for every additional minute spent on unpaid care and domestic work (UCDW) each day, individuals spent slightly less time on leisure or non-productive activities, such as attending cultural events, engaging in hobbies, or relaxing. The inverse relationship shown by the negative value of -0.342, suggests that unpaid care responsibilities constrain opportunities for leisure. This issue is especially relevant for women, who often carry a larger share of these responsibilities. To address this, governments and communities can develop policies that encourage shared domestic responsibilities, provide affordable childcare, and recognize unpaid work's value. Reducing the burden of UCDW would allow people to enjoy more recreational and social activities, contributing to personal well-being and social participation. This result aligns with evidence from various studies. For instance, Bianchi et al. (2000) in the United States found that greater engagement in UCDW often leads to a more structured schedule, thereby limiting time for leisure or other non-productive pursuits. Similarly, Mattingly and Bianchi (2003) observed that individuals dedicating significant time to UCDW experience a corresponding decline in leisure time. In the United Kingdom, Gershuny (2000) noted that individuals engaged in extensive unpaid work tend to prioritize productive tasks over leisure activities. Collectively, these studies highlight a consistent trend across different contexts, showing that increased involvement in UCDW is correlated with reduced time allocated to leisure and other non-productive activities.

The analysis reveals that urban residents tend to spend more time on non-productive activities compared to rural residents, as indicated by the positive value of 17.825. This means that people living in cities are more likely to have access to cultural events, recreational facilities, and other leisure activities. In contrast, rural areas may lack infrastructure or opportunities for such activities. While the magnitude of effect is modest, this urban-rural divide highlights the need to improve access to social and cultural opportunities in rural regions. Investments in rural recreational spaces and community programs can help bridge this gap and ensure everyone, regardless of where they live, can enjoy leisure and social engagement. The finding is consistent with existing literature. For example, Bianchi et al. (2000) found that urban residents in the United States often engage more in leisure activities due to greater access to amenities and social opportunities. Similarly, Mattingly and Bianchi (2003) observed that urban living fosters environments conducive to leisure, resulting in more time spent on non-productive pursuits. Additionally, Glaeser and Gottlieb (2006) highlighted that urban dwellers in the U.S. tend to allocate more time to social and recreational activities, further reinforcing the link between urban living and increased leisure time. Collectively, these studies illustrate a consistent trend across different contexts, showing that urban environments encourage greater participation in non-productive activities.

The study found that older individuals tend to spend slightly more time on non-productive activities, as reflected by a positive value of 3.326. This suggests that as people age, they might have fewer work or caregiving responsibilities, freeing up time for hobbies, self-care, or relaxation. This shift highlights the importance of providing older adults with opportunities to engage in meaningful recreational activities. Communities could offer tailored programs, such as senior-friendly exercise facilities or cultural events, to ensure older adults stay active, socially connected, and fulfilled. The finding is supported by several studies. For instance, Bianchi et al. (2000) observed in the United States that as individuals age, they tend to allocate more time to leisure and non-productive pursuits. Similarly, Mattingly and Bianchi (2003) noted that older adults in their U.S.-based research often experience a shift in their time allocation, leading to increased engagement in non-productive activities. In the United Kingdom, Gershuny (2000) also observed that older individuals tend to prioritize leisure, resulting in more time spent on non-productive tasks. These studies collectively highlight a consistent trend across various contexts, suggesting that aging is correlated with an increase in time dedicated to non-productive activities.

The analysis reveals that people with higher levels of education spend slightly less time on non-productive activities, as shown by the negative value of -1.337. This suggests that individuals with greater educational attainment are often involved in jobs or activities that demand more of their time, leaving less room for leisure. Although the effect is small, it raises the issue of work-life balance, especially for highly educated individuals. Employers and policymakers should encourage a culture that values personal time alongside professional achievements. Offering flexible work arrangements and promoting healthy work-life boundaries can help mitigate this effect. This finding is supported by various studies. For example, Bianchi

et al. (2000) found in the United States that individuals with higher education levels tend to allocate more time to productive activities, reducing idle time. Similarly, Mattingly and Bianchi (2003), in their U.S.-based study, noted that higher educational attainment is linked to more efficient time management, resulting in less time spent on non-productive pursuits. In the United Kingdom, Gershuny (2000) also highlighted that higher education correlates with a more structured approach to time allocation, further reinforcing the idea that educated individuals spend less time on non-productive activities. Collectively, these studies illustrate a consistent trend across different contexts, demonstrating the impact of education on time use.

The analysis also indicates that larger households are associated with less time spent on non-productive activities, with a negative value of -5.962. This suggests that as the number of household members increases, individuals face caregiving or domestic responsibilities, leaving less time for personal or leisure activities. This highlights the importance of supporting families with resources like childcare services, family leave policies, and flexible work schedules. Such measures can ease the burden on individuals in larger households and allow them to enjoy more leisure time, which is essential for mental health and well-being. The finding aligns with several studies. For instance, Bianchi et al. (2000) conducted research in the United States, noted that the division of labor in larger families can enhance productivity, leaving less time for leisure. Similarly, Baxter (2008) analyzed Australian households, showing that an increase in family size leads to a more efficient distribution of chores, thereby reducing idle time. In a study by Mattingly and Bianchi (2003), also in the U.S., the authors observed that larger households experience a shift in time use patterns, further supporting this finding. Collectively, these studies emphasize the trend that larger household sizes correlate with less time spent on non-productive activities across different cultural contexts.

The analysis shows that men tend to spend more time on non-productive activities compared to women, with a value of 24.518. This reflects traditional gender roles, where women often take on more caregiving and domestic tasks, thereby reducing their leisure time. Although the difference is modest, it signifies the persistent gender imbalance in time use. To address this, policies and social initiatives should focus on reducing the unequal distribution of domestic work. For example, encouraging men to take on more household responsibilities and providing better childcare options can help women achieve a more balanced lifestyle. The collective findings from these studies highlight a consistent theme: societal norms and expectations influence the gendered allocation of time, particularly in leisure and household labor. While Bianchi et al. (2000) and Mattingly & Bianchi (2003) provide valuable insights within the U.S. context; Gershuny (2000) offers an international perspective that reveals similar patterns in the UK; Hofferth and Iceland (1998) further contextualize these findings within varying social environments, while Sayer and Gauthier (2006) present a Canadian viewpoint that emphasizes ongoing changes in gender roles. Together, these studies affirm the importance of viewing gender differences not merely as individual choices but as reflections of broader societal structures that shape time use, ultimately influencing economic and social outcomes.

Households with children under six spend slightly more time on non-productive activities, with a positive value of 28.550. This reflects the time parents spend engaging in leisure or social activities with their young children. While this can be seen as quality family time, it also indicates the additional demands placed on families with young children. Providing accessible childcare, parenting programs, and family-friendly recreational spaces can support these families and enhance their overall well-being. The finding is well-supported by existing literature. Bianchi et al. (2000) emphasize the importance of non-productive time, particularly for family bonding while also highlighting the additional demands placed on parents, especially mothers. Mattingly and Bianchi (2003) further elucidate gendered dimensions this dynamic, noting that women's leisure time is disproportionately reduced by childcare and domestic responsibilities, underscoring the need for better support systems. Gershuny (2000) examines how societal norms influence time allocation, revealing that cultural contexts shape family priorities and can intensify the pressures on parents. Similarly, Baxter (2008) finds that parental responsibilities in Australia lead to significant allocation of time to non-productive activities, reflecting a common challenge across Western countries. In contrast, Duvander and Andersson (2006) offer a more positive scenario from Sweden, where supportive parental leave and childcare policies help mitigate these pressures, enabling a more equitable distribution of leisure time. This comparison underscores the importance of accessible childcare and family-friendly policies in promoting overall family well-being.

These findings demonstrate the role of unpaid care and domestic work (UCDW) in shaping how individuals allocate their time. UCDW significantly restricts leisure opportunities, particularly for women and individuals in larger households, reinforcing gender and social inequalities. Additionally, factors such as regional disparities, educational attainment, and gender differences further influence the availability of time for personal and recreational activities. Addressing these challenges requires targeted policies designed to alleviate the burden of UCDW and ensure equitable access to leisure and personal development.

opportunities. Investing in better recreational infrastructure in rural areas, creating tailored programs for older adults, and promoting gender equality in domestic responsibilities can enhance overall well-being. Such efforts not only improve the quality of life for individuals but also foster more inclusive, balanced, and cohesive societies. Ultimately, the regression results confirm the importance of recognizing and addressing the impact of UCDW on time use and social development. By implementing strategies that support personal growth, family well-being, and equitable participation in social and cultural life, policymakers can create a more supportive and sustainable social framework for all.

4.4.2 Determinants of Hours Worked in Productive Activities

The regression analysis presented in Table 2 examines the factors that influence the total hours worked in productive activities over the past week. Key independent variables include place of residence (urban vs. rural), age, education, household size, sex, time spent on UCDW, and the presence of children under six years of age. The dependent variable in this model represents productive labor time, which is essential for understanding the dynamics of economic development. The results provide valuable insights into the relationship between these factors and the broader implications for labor markets, productivity, and societal economic growth.

Table 5

Determinants of Hours Worked for Productive Activities: A Regression Analysis

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	64.197	0.048		1324.331	0.000
Residence (urban/rural)	-9.441	0.016	-0.219	-577.267	0.000
Age	-0.035	0.001	-0.023	-58.182	0.000
Highest Grade Completed	0.011	0.001	0.005	13.205	0.000
Household size	-0.082	0.004	-0.009	-20.070	0.000
Sex (male/female)	-5.008	0.021	-0.085	-240.347	0.000
Time spent on UCDW minutes per day	-0.013	0.000	-0.105	-305.588	0.000
Presence of children under 6 years of age in the household (no/yes)	0.948	0.017	0.023	56.892	0.000

Time spent on UCDW has a noticeable effect on productive work hours. The analysis demonstrates a direct trade-off, whereby time spent on UCDW reduces productive work hours. This shows that unpaid care responsibilities, such as childcare, cooking, or cleaning, take time away from paid work. This is particularly impactful for women, who disproportionately shoulder UCDW, thereby limiting their participation in the formal economy. Addressing this requires policies such as public childcare services or flexible work options to alleviate the burden and enable a better balance between paid and unpaid responsibilities.

The analysis further identifies a substantial rural-urban gap, with rural residents working about 9.44 fewer hours per week in productive activities compared to their urban counterparts. Urban residents often have more access to diverse jobs, better infrastructure, and economic opportunities, which allows them to work longer hours. Rural areas, in contrast, may lack these advantages and often depend on informal or seasonal work. To close this gap, investment in rural job creation, infrastructure, and access to markets is necessary, allowing rural communities to thrive economically. This research aligns with the findings of Tjepkema et al. (2009), who examined urban-rural differences in daily time use and occupational patterns in Canada, demonstrating how geographic location influences work behaviors and housing conditions, revealing significant disparities between urban and rural residents. Additionally, the World Happiness Report (2021) analyzed global urban-rural happiness differentials, indicating that greater access to resources and

economic opportunities in urban areas is often linked to higher levels of well-being compared to rural regions. Together, these studies underscore the need for targeted strategies to address the challenges facing rural communities and enhance their overall quality of life.

Demographic and socioeconomic factors also exert significant influence. As people age, the number of hours they work tends to decrease slightly, by about 0.035 hours per additional year of age. This trend reflects the natural progression of life, as older individuals may work less due to retirement, health issues, or shifts to less demanding roles. This finding emphasizes the importance of supporting older workers through healthcare access, retraining opportunities, and policies that enable them to remain active in the workforce if they choose. This trend is supported by the findings of McNair et al. (2016) in the United Kingdom, who explored workforce participation among older adults and highlighted how factors such as retirement, health challenges, and transitions to less demanding roles contribute to reduced working hours. Similarly, a study by Wang and Shi (2014) in China found that older workers often face barriers to maintaining employment, emphasizing the need for supportive measures such as access to healthcare, retraining programs, and inclusive policies that enable older individuals to remain engaged in the labor market if they choose. These findings collectively underscore the importance of facilitating the continued participation of older workers in the workforce.

The analysis reveals a consistent positive relationship between educational attainment and productive work hours, with each additional year of schooling corresponding to increased engagement in productive activities. This reflects the fact that education often leads to better job opportunities, which may require greater time commitment. Investing in education not only benefits individuals but also enhances the overall economy by creating a more skilled and productive workforce. This relationship is supported by the study conducted by Oreopoulos and Salvanes (2011) in Norway, which demonstrated that higher educational attainment leads to better job prospects and increased labor market participation. Similarly, a study by Goux and Maurin (2006) in France found that individuals with higher education levels tend to work longer hours due to the demands of more skilled positions. These findings collectively underscore the dual benefit of investing in education—it simultaneously enhances individual employability and strengthens the national economy by fostering a more skilled and productive workforce.

Household dynamics are equally impactful. Larger households tend to reduce individual work hours slightly, as each additional family member increases the caregiving and domestic responsibilities within the household. This often leaves less time for paid work, especially for women who typically shoulder more caregiving tasks. Policies like subsidized childcare, paid family leave, and eldercare support can help larger households better balance their responsibilities and encourage more productive work. This trend is well-documented. Research by Kimmel and Powell (2006) in the United States directly links larger households to decreased labor force participation among women due to increased family obligations. Similarly, a study by Bianchi et al. (2006) emphasized the impact of household structure on work hours, noting that greater domestic responsibilities can limit the time available for paid employment. These findings underscore the importance of implementing supportive policies, such as subsidized childcare, paid family leave, and eldercare assistance, to help larger households balance caregiving responsibilities while encouraging greater workforce participation.

Women work around 5 fewer hours per week in productive activities compared to men. This reflects persistent gender inequalities in household and caregiving responsibilities, which limit women's ability to participate fully in paid work. Tackling these disparities requires promoting shared household responsibilities and creating supportive policies, such as paid parental leave, affordable childcare, and flexible working arrangements, to help women engage more in the workforce. This observation is supported by the research of Budig and Hodges (2010) in the United States, which revealed that traditional gender roles significantly constrain women's labour market participation. Additionally, a study by Kahn and Garcia (2016) in Spain emphasized that women often face greater domestic demands, further limiting their work hours compared to their male counterparts. Addressing these inequalities requires promoting shared household responsibilities and implementing supportive policies, such as paid parental leave, affordable childcare, and flexible working arrangements, to empower women to participate more fully in the workforce.

Households with young children under six tend to work slightly more hours in productive activities. This may be due to the financial pressure of supporting children, which drives parents to seek additional income. However, having young children also increases caregiving responsibilities, which can create competing demands on parents' time. Providing accessible and affordable childcare services can help parents manage their responsibilities more effectively and contribute to economic development. This finding is supported by the study conducted by Ramey and Ramey (2010) in the United States, which highlighted that parents of young children often increase their work hours to meet financial obligations. Conversely,

research by Hofferth and Curtin (2006) indicated that the caregiving responsibilities associated with young children create competing demands on parents' time, potentially limiting their availability for paid work. To help parents effectively balance these responsibilities while contributing to economic growth, providing accessible and affordable childcare services is essential.

Collectively, the results demonstrate how various factors—especially UCDW—shape people's ability to participate in productive work. UCDW reduces the time people can dedicate to paid labor, with women and larger households disproportionately affected. Addressing these challenges through targeted investments in care infrastructure, rural development, and education, can unlock greater economic participation and productivity. By creating supportive environments that balance work and caregiving responsibilities, societies can foster inclusive economic growth, benefiting individuals, families, and communities as a whole.

5 CONCLUSIONS AND RECOMMENDATIONS

5.1 CONCLUSIONS

The primary objective of this study was to quantify the time spent on unpaid care and domestic work (UCDW) in Ethiopian households and evaluate its potential contribution to Ethiopia's Gross Domestic Product (GDP) if it were compensated as paid labor. Based on the comprehensive analysis, the following key conclusions were drawn.

4.1.1 Allocation of Time for Productive Activities and Unpaid Care and Domestic Work

1

UCDW represents a significant, yet overlooked, pillar of the Ethiopian economy: This study has measured UCDW's economic contribution, revealing its substantial value, ranging from 16.8% to 22.6% of Ethiopia's 2022 GDP, depending on the valuation method used. This finding challenges the conventional exclusions of unpaid labour from national accounts, perpetuating its invisibility in national policy discourse. The hidden economic value of UCDW highlights key aspects of economic productivity, social welfare, and family cohesion, highlighting its foundational role in sustaining both households and broader economic systems. Recognizing UCDW as a legitimate economic activity offers a critical opportunity for Ethiopia to address long-standing gaps in social protection, labor policy, and economic planning.

2

UCDW burden is disproportionately carried by women, reinforcing systemic gender inequalities: The study underscores the stark gender divide in time use, where women spend an average of 41 hours per week on UCDW, compared to just 21 hours for men. This unequal distribution of directly limits women's participation in productive economic activities, which average only 30 hours per week, compared to 39 hours for men. By confining women to unpaid caregiving roles, traditional gender norms perpetuate their economic marginalization, constraining their access to labor markets, income-generating opportunities, and decision-making roles.

3

The economic value of UCDW comes with Opportunity Costs that undermine women's economic empowerment: Regression analysis confirms a direct trade-off: every additional minute spent on UCDW reduces time available for productive work. The opportunity cost quantified at ETB 1,394.88 billion annually using Opportunity Cost method, disproportionately affects women and hinders broader economic growth. This finding underscores the urgent need for policies that enable women to balance unpaid and paid work. Recognizing UCDW's economic cost is essential to unlocking women's potential as active participants in Ethiopia's development agenda.

4

Deep-rooted gender norms perpetuate the unequal distribution of UCDW, limiting progress toward gender equality:

The study reveals that traditional societal perceptions of gender roles dictate the types of unpaid work performed by men and women. Women overwhelmingly take on caregiving and household management tasks, such as food preparation, cleaning, and textile care, while men's contributions are largely limited to physically demanding or mobility-intensive tasks, like firewood collection and travel for domestic purposes. These culturally ingrained patterns reinforce gendered divisions of labor that systematically entrenches women's economic marginalization.

5

Recognizing and addressing the economic and social dimensions of UCDW is essential to building an inclusive and sustainable economy:

This study provides evidence to guide policymakers, development practitioners, and advocates in addressing the systemic undervaluation of UCDW. Recognizing its profound economic and social dimensions is the first step toward transformative actions. Integrating UCDW into Ethiopia's development framework is indispensable for building a sustainable and inclusive economy that values all contributions and ensures that no one—especially women—is left behind.

5.2 RECOMMENDATIONS

Unpaid Care & Domestic Work (UCDW) forms the invisible backbone of Ethiopia's economy, contributing an estimated 17–23% of GDP while remaining systematically excluded from in policy and national accounting. The disproportionate burden placed on women—who spend significantly more time on UCDW than men—perpetuates gender inequalities by limiting their access to education, employment, and economic opportunities. To transform this reality, this section presents evidence-based policy solutions across four key dimensions: recognition (integrating UCDW into national accounting), reduction (alleviating care burdens through infrastructure and technology), redistribution (promoting shared responsibilities between men and women), and representation (ensuring care work informs gender-responsive policies). Grounded in Ethiopia's context yet aligned with global best practices, these recommendations call for coordinated action by government, private sector, civil society, and communities to create a more equitable and productive economy that works for all.

1

RECOGNIZE AND VALUE UCDW

Formally recognize UCDW in national accounting to highlight its economic contribution and inform equitable policy.

Key Actions

- Incorporate UCDW into GDP calculations and national statistics to ensure visibility in economic planning.
- Institutionalize regular Time Use Surveys (TUS), disaggregated by gender, age, disability, and location, to track the care burdens over time.
- Align development policies and gender-responsive budgeting with the valuation of UCDW.

2

REDUCE UCDW BURDENS THROUGH INFRASTRUCTURE AND TECHNOLOGY

Invest in public infrastructures and innovations that alleviate time- and labor-intensive domestic workloads, particularly in rural areas.

Key Actions

- Scale up investments in clean water systems, renewable energy, and improved cooking technologies (e.g., solar-powered pumps, fuel-efficient stoves).
- Enhance access to affordable labor-saving tools by supporting private sector innovations (e.g., 'Enset' processing technology) through financing and commercialization incentives.
- Strengthen government and development partner initiatives, such as those led by the Ministry of Innovation and Technology and Ministry of Water and Energy, to scale up rural-friendly solutions.

3

EXPAND AND STRENGTHEN CHILDCARE SERVICES

Expand accessible childcare to unlock women's economic participation, as significant gaps persist in rural areas and the private sector despite Ethiopia's progress.

Key Actions

- Expand mandatory childcare services to private industries (manufacturing, hotels, and others) alongside public sector provisions.
- Promote subsidized, community-based childcare models, building on successful examples.
- Enhance public-private partnerships and donor support to make childcare affordable for low-income families.
- Improve inter-ministerial coordination (MoWSA, MoE, Ministry of Trade) to standardize and regulate childcare services nationwide.

4

REDISTRIBUTE UCDW RESPONSIBILITIES BETWEEN MEN AND WOMEN

Transform deep-rooted social norms that perpetuate unequal caregiving roles through systematic efforts to shift attitudes and encourage shared responsibilities.

Key Actions

- Launch national behavior change campaigns (via media, religious institutions, and community leaders) to promote equitable household roles.
- Integrate gender equality into school curricula, teaching boys and girls about shared caregiving from an early age.
- Scale up male engagement programs to normalize men's participation in care work.

5

GENDER-RESPONSIVE LABOR POLICIES

Strengthen enforcement and awareness of Ethiopia's improved parental leave policies, particularly in the private sector.

Key Actions

- Promote use of existing policies through awareness campaigns.
- Introduce maternity leave insurance schemes to encourage private sector compliance.
- Expand flexible work arrangements (remote work, adjustable hours) for workers balancing paid and unpaid labor.
- Extend social protections (health insurance, childcare support) to informal sector workers, who face the greatest care-work burdens.

6

STRENGTHEN STAKEHOLDER ENGAGEMENT

Foster multi-stakeholder collaboration across government, private sector, civil society, and households to ensure effective UCDW policies.

Key Actions

Government:

Advocate for UCDW inclusion in GDP and regular TUS updates with donor/CSO support.

Private Sector

Adopt gender-sensitive workplace policies (flexible hours, on-site childcare) and highlight best practices (e.g., Enat Bank's women entrepreneurship programs).

Civil Society & Media:

- Strengthen government-CSO partnerships for advocacy.
- Use media campaigns to shift cultural norms (e.g., showcasing equitable models like Awra Amba).

Households:

Promote male engagement programs (e.g., ActionAid's initiatives) and community dialogues to redistribute care work fairly.

7

ADDRESS CULTURAL AND SOCIAL NORMS

Transform cultural attitudes that heavily influence UCDW distribution by integrating qualitative insights and global benchmarking into policy design.

Key Actions

- Research root causes (e.g., early school dropout, societal expectations) through qualitative studies.
- Compare Ethiopia's progress on SDG 5.4 (reducing unpaid care work) with global standards to identify policy gaps.

8

PROFESSIONALIZE DOMESTIC WORK TO REDUCE UCDW BURDENS

Professionalize Ethiopia's domestic work sector to simultaneously reduce women's unpaid care burdens and create decent employment opportunities, thereby addressing both care redistribution and decent work creation within the country's labor market context.

Key Actions

Training & Certification

- Develop certified training programs in childcare and household management.
- Create national certification standards for domestic workers.

Labor Formalization

- Establish standardized employment contracts.
- Implement minimum wage regulations.
- Provide social security benefits.
- Ensure reasonable working conditions.

Policy & Enforcement

- Enforce fair wage laws.
- Introduce tax benefits for formal employment arrangements.

Social Perception

Launch public awareness campaigns to:

- Recognize domestic work as skilled labor,
- Reduce societal stigma,
- Promote fair treatment of domestic workers.

System Integration

- Incorporate domestic workers into national childcare systems.
- Align with existing labor market structures.

9

FUTURE RESEARCH AND DATA IMPROVEMENTS

Prioritize inclusive and timely data collection to address current limitations and enhance policy precision.

Key Actions

- Conduct fresh TUS surveys periodically to reflect evolving care dynamics.
- Include disability data to capture unpaid care contributions of persons with disabilities.
- Justify and address old data limitations, advocating for government-funded TUS initiatives to ensure sustainability.

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ANNEX 1:

GLOSSARY OF TERMS

Domestic work: Domestic work refers to tasks and responsibilities related to maintaining a household. This can include a variety of activities such as cleaning, cooking, laundry, and other chores necessary for the upkeep of a home. It is often considered unpaid labor when done by family members, particularly women, and is a crucial aspect of family life and functioning.

National Time Transfer Account (NTTA): National Time Transfer Accounts (NTTA) is a framework that extends the concept of National Transfer Accounts (NTA) to analyze the flow of time across different age groups and gender within a population.

National Transfer Account (NTA): National Transfer Accounts (NTA) is a framework used to analyze the economic flows between different age groups within a population. This concept helps in understanding how resources are transferred across generations, particularly in terms of consumption and income.

Nonproductive activities: Non-Productive activities are those activities that cannot be delegated to someone else, in line with the “third person rule”. Activities performed for personal maintenance and care such as eating, drinking, sleeping, or exercising is non-productive. Similarly, activities associated with socializing and entertainment, such as participation in sports, hobbies and games, and use of mass media are considered non-productive activities.

Non-SNA Production (Extended SNA): Non-SNA production within the general production boundary includes domestic and personal services produced and consumed within the same household including cleaning, servicing and repairs; preparation and serving of meals; care, training and instruction of children; care of the sick and elderly; transportation of members of the household or their goods; as well as unpaid volunteer services to other households, community, neighborhood associations and other associations.

Opportunity Cost: Opportunity Cost refers to the value of the next best alternative that is forgone when a decision is made. It represents the benefits you could have received by choosing a different option.

Productive Activity: An activity is said to be productive if its performance can be delegated to another person and yield the same desired result. As such, all productive activities fall within the general production boundary.

Replacement Cost: the amount of money required to replace the unpaid work with a similar one at current market prices.

System of National Accounts (SNA): The System of National Accounts (SNA) is the internationally agreed set of standards for compiling National accounts, which in turn the basis of measuring Gross Domestic Product (GDP) of a country. Growth in GDP is used as the main indicator of how well or how poorly an economy is performing.

Time Use Survey: Time use surveys measures the amount of time people spend in doing various activities, such as paid and unpaid works, domestic, childcare, volunteering, socializing etc. The time spent on an activity is measured in terms of the number of minutes or hours within a 24-hour period.

Unpaid care: This refers to time spent doing activities to care for or help any child (under age 18) or adult in the household, regardless of the physical or mental health status of the person.

ANNEX 2: DETAILED METHODOLOGY (ECONOMETRIC APPROACH)

Given that directly observable market prices for these services are not available, Valuing UCDW is not easy task. Two methods for inferring the value UCDW are commonly utilized: the input valuation approach and the output valuation approach(UN, 2017).

Output Valuation Approach

Output based approach utilizes the amount of individual produced multiplied by the market prevailing price. Output approach were applied in USA by Valerie, (2012), revealed that best approach to compare unpaid activities with GDP and production count in the national account.

Total value of UCDW using output approach calculated as follows:

$$Y_i = f(X_i, P_i) \text{-----}(1)$$

Y_i = Value of specific unpaid activities, X_i = output produced outside SNA, P_i = The price level /the market equivalent price thus

The monetary value of specific unpaid work calculated as:

$$Y_i = X_i * P_i \text{-----}(2)$$

However, as noted by Marszałek (2020), this approach does not provide a comprehensive assessment of productive outcomes, particularly for activities such as caregiving and volunteering, where outputs are often intangible and difficult to quantify. For instance, the output of childcare or helping other households cannot be easily measured or monetized. In Ethiopian context, the application of the output approach faces additional practical challenges. Detailed data on household output and equivalent market price for goods and service produced in the household is not available. Therefore, this approach is not applied in this study. Given the research objective to measure not only domestic activities but also caregiving and unpaid community services, the input-based approach was employed to value the UCDW.

Input valuation Approach

Input-based approach provides a practical and methodologically sound framework for valuing unpaid care and domestic work (UCDW) in Ethiopia. By imputing a monetary value to labor inputs—calculated as time spent on each activity multiplied by an appropriate wage rate per unit of time— this approach leverages the detailed, activity-level data available from the Ethiopian Time Use Survey.

To estimate a reliable value of UCDW, the following steps are followed (UN, 2017)

- 1) Average daily minutes spent of household work recorded in the TUS is considered for each demographic sub-groups (i.e. groups of females and males classified according to their age group, marital status, whether they were employed or if they have children) to generate average weekly hours spent
- 2) The average hourly wage rate based on the imputed wage rate is applied to the average weekly hours to arrive at the weekly value of own-use production work of services.
- 3) These average amounts are then multiplied by the number of weeks in a year, applied to the population in each demographic sub-group and summed to provide annual estimates of the value of own-use production work of services.

In this approach time spent and hourly wage rate are the main components of estimation and valuation of UCDW. One of the main challenges for valuing UCDW is lack of data for wage, since different activities performed at household, appropriate wage rate may not available at

national employment survey. National accounts guidelines recommend two approaches (UN, 2017) for wage imputation into UCDW.

- I. Opportunity Cost approach
- II. Replacement Cost approach

Opportunity Cost approach

This approach assumes paid work and unpaid work trade off against other, time spent in one place of work only at the expense of the other. A teacher hourly wage at teaching place can be taken as value of preparing meals at home.

- This approach criticized for its inability of reflecting the actual value of UCDW, and depends on who is performing the task. Preparing meals, for example, is likely to require the same level of skill whether the individual is a laborer or a doctor, but one has much higher wage rate than the other.
- An added complication arises for unemployed people who have no equivalent market wage.
- A further weakness of the Opportunity Cost method is the assumption that people can always choose whether to spend an extra hour on paid work or on another activity.

Having this limitation in mind the study employed this approach to compare the result obtained from Replacement Cost approach.

The mathematical equation of opportunity cost approach presented as follows:

$$Y_i = f(T_u, W_r)$$

While Y_i value of unpaid work (Opportunity Cost approach), T_u represents time spent on unpaid work, and W_r represent hourly wage rate earned by the person (who also perform unpaid work) in paid activity. Thus, the monetary value of unpaid work performed by the individual computed as:

$$Y_i = \sum_{i=1}^k T_{ui} * W_r$$

While Y_i , represent the total value of unpaid work (domestic, care and community-based activities) performed by individual, T_{ui} represent the time spent on each unpaid activity. To estimate the aggregate value of unpaid activity at national level using Opportunity Cost approach:

$$Y_i = \sum_{i=1}^k \sum_{i=1}^k T_{ui} * W_r * P_i$$

Where, P_i = Sampling weight

Replacement Cost approach

This method values time spent on UCDW using the hourly earnings of individuals who are engaged in similar activities in the market sector (Mason et al., 2009; UN, 2017; United Nations, 2016; Urdinola & Tovar, 2019; Vargha et al., 2017). Under Replacement Cost approach two known established methods are documented in the literature:

- Specialist Replacement Cost and
- Generalist Replacement Cost.

For the Specialist variant, the Replacement Costs of unpaid activities are imputed based on hourly earnings of people employed in matched occupations. While in the Replacement Cost

general method variant the wage rate used is that of a general housekeeper. This approach appears to be the most appropriate given (i) working conditions are similar for many activities, if not the same, as those faced by the producer of own-use production work of services; and (ii) a general housekeeper is more likely to perform the majority of the tasks that are typically carried out in a household. Therefore, we employ Generalist Replacement Cost approach and we follow (J. Suh et al., 2020) to compute the monetary value of unpaid work performed by a person aged 15 years and older.

Similar to Opportunity Cost approach the value of unpaid work using Generalist Replacement Cost approach is a function of time spent on unpaid activity and market wage rate.

$$Y_i = f(T_u, W_r)$$

Where, Y_i = Value of unpaid work in monetary terms, T_u = Time spent on unpaid activities by the person age 15 and older, W_r = market wage rate, which obtained from the market in similar but paid activities.

In this case the salary of a maid or janitor was used as the replacement cost for unpaid domestic activities. Similarly, the average wage of childcare worker was applied to value time spent on unpaid childcare. For dependent adult care, the wage of domestic housekeeper or personal care worker was employed to assign a monetary value to the time invested.

Then after, the value of the unpaid work (Y_i) performed by a person aged 15 and older calculated as:

$$Y_{di} = \sum_{i=1}^K T_{di} * W_{dr}$$

$$Y_{ci} = \sum_{i=1}^K T_{ci} * W_{cr}$$

$$Y_{vi} = \sum_{i=1}^K T_{vi} * W_{vr}$$

Where, Y_{di} , Y_{ci} and Y_{vi} represent value of unpaid work related to domestic activity, care activity and community/volunteering activity respectively,

T_{di} = represent the time spent on domestic activity, W_{dr} = Market wage rate for domestic activity

T_{ci} = Time spent on care related activity, W_{cr} = Market wage rate for care related activity

T_{vi} = Time spent on community and volunteering activity, W_{vr} = Market wage rate for community and volunteering activity

Total value of unpaid work (Y_i) performed by person aged 10 and above:

$$Y_i = Y_{di} + Y_{ci} + Y_{vi}$$

Finally, to estimate the total value of the unpaid work performed by all individual aged 15 and older, we follow (J. Suh et al., 2020) and use the following formula:

$$\sum_{i=1}^N \sum_{j=1}^M P_i T_{ij} W_j$$

V = Annual monetary value of unpaid care work

N = Sample size

ANNEX 3:

TIME USE CATEGORIES, ACTIVITIES AND CODING

A) MONTHLY SALARY ESTIMATES BY GENDER AND AGE FOR SPECIFIC EXTENDED SNA ACTIVITIES AND MATCHING OCCUPATIONS IN ETHIOPIA, BASED ON TUS 2013 AND EUES 2022

Major extended SNA activity Category	Specific activity (extended SNA activity)	Matching occupation	Salary per month (ETB)			
			Male		Female	
			15-17	18+	15-17	18+
Unpaid Services for Domestic Use	Food management	Food preparation assistants (9411)	1554	2380	1554	1789
		Kitchen Helpers (9412)	1750	2382	1537	1788
		Domestic Housekeepers (5152)	1537	2911	1537	1692
	Cleaning and upkeep of dwellings and surroundings	Domestic Cleaners and Helpers (9111)	1500	2300	1600	1670
	Do-it-yourself decoration, maintenance and small repairs	Domestic Housekeepers (5152)	1537	2911	1537	1692
		Beauticians and Related Workers (5142)	-	4538	-	3168
	Care of textiles and footwear	Handicraft Workers in Textile, Leather and Related Materials (7218)	1500	5725	1500	3520
		Domestic Housekeepers (5152)	1537	2911	1537	1692
	Shopping	Domestic Cleaners and Helpers (9111)	1500	2300	1600	1670
		Domestic Housekeepers (5152)	1537	2911	1537	1692
	Travel related to provision of unpaid domestic services	Domestic Cleaners and Helpers (9111)	1500	2300	1600	1670
		Domestic Housekeepers (5152)	1537	2911	1537	1692
	Fire Wood Collection	Domestic Cleaners and Helpers (9111)	1500	2300	1600	1670
		Domestic Housekeepers (5152)	1537	2911	1537	1692
	Fetching Water	Domestic Cleaners and Helpers (9111)	1500	2300	1600	1670
		Domestic Housekeepers (5152)	1537	2911	1537	1692

Unpaid Care Giving Services to Household Members	Childcare	Domestic Housekeepers (5152)	1537	2911	1537	1692
		Child Care Workers (5311)	1500	6167	1500	4170
	Adult care	Personal care worker in health service (5322)		7532		7532
		Domestic Housekeepers (5152)	1537	2911	1537	1692
	Travel related to unpaid caregiving services to household members	Domestic Housekeepers (5152)	1537	2911	1537	1692
Unpaid Community Services	Unpaid help to other households	Domestic Housekeepers (5152)	1537	2911	1537	1692
	Community-organized services	General Office Clerks (4110)	1537	5756	1537	4663
	Organized unpaid volunteer services	General Office Clerks (4110)	1537	5756	1537	4663
	Involvement in civic and related responsibilities	General Office Clerks (4110)	1537	5756	1537	4663
	Travel related to community service and help to other households	General Office Clerks (4110)	1537	5756	1537	4663

B) AVERAGE MONTHLY EARNINGS (ETB) BY OCCUPATION, GENDER, AND AGE GROUP IN ETHIOPIA, BASED ON EUES 2022

S. No	Occupation		Male		Female	
	Title	Code	Children	Adult	Children	Adult
1	Commissioned armed forces officers	11		5397		4964
2	Non-Commissioned armed forces officers	21		4452		4609
3	Armed forces occupations, other ranks	31		4877		3970
4	Legislators and senior officials	111		8334		9341
5	Managing directors and chief executives	112		8981		10348
6	Business services and administration managers	121		11942.25		7776.75
7	Sales, marketing and development managers	122		11178		6051
8	Production managers in agriculture, forestry and fisheries	131		7595		6871
9	Manufacturing, mining, construction, and distribution managers	132		10414.25		13477.5
10	Information and communications technology service managers	133		15008		8017
11	Professional services managers	134		11185		9286.67
12	Hotel and restaurant managers	141		4419		2642
13	Retail and wholesale trade managers	142		9775		20000
14	Other services managers	143		6080.3		6775.67
15	Physical and earth science professionals	211		8127		5192.75
16	Mathematicians, actuaries and statisticians	212		8629		5587
17	Life science professionals	213		8586		6930
18	Engineering professionals (excluding electrotechnology)	214		8560		7380.6
19	Electro technology engineers	215		10631		6473.7
20	Architects, planners, surveyors and designers	216		7286.6		8194
21	Medical Doctors	221		14560.5		12913.5
22	Nursing and midwifery professionals	222		8241		7433
23	Traditional and Complementary Medicine Professionals	223		11190		6547
24	Paramedical practitioners	224		10941		6686
25	Veterinarians	225		8029		7209
26	Other health professionals	226		126994.5		6845.16
27	University and Higher Education Teachers	231		10607		10057

S. No	Occupation		Male		Female	
	Title	Code	Children	Adult	Children	Adult
28	Vocational education teachers	232		8272		6363
29	Secondary education teachers	233		8577		7831
30	Primary School and Early Childhood Teachers	234		628.5		5165
31	Other teaching professionals	235		7436.16		6314
32	Finance professionals	241		11311.33		8099.67
33	Administration professionals	242		9771.25		7374.75
34	Sales, marketing and public relations professionals	243		8907.75		8697
35	Software and applications developers and analysts	251		10047.2		6823.5
36	Database and network professionals	252		11100.75		6729
37	Legal professionals	261		10836.3		9251.67
38	Librarians, archivists and curators	262		5366.5		4949.5
39	Social and religious professionals	263		7216.67		4701.4
40	Authors, journalists and linguists	264		11124.33		6127.33
41	Creative and performing artists	265		13600		4272
42	Physical and engineering science technicians	311	1200	7193.78		5519.5
43	Mining, manufacturing and construction supervisors	312		8397.33		6216
44	Process control technicians	313		8002.4		4704.67
45	Life science technicians and related associate professionals (none-medical)	314		7331.67		4601.5
46	Ship and aircraft controllers and technicians	315		23309.3		13257
47	Medical and pharmaceutical technicians	321		5593.3		6202.3
48	Nursing and midwifery associate professionals	322		6649.5		5574
49	Traditional and complementary medicine associate professionals	323		4143		4470
50	Veterinary technicians and assistants	324		6366		4630
51	Other health associate professionals	325		6355.71		6518.5
52	Financial and mathematical associate professionals	331		6208.4		6695
53	Sales and purchasing agents and brokers	332		8294		5594.5
54	Business services agents	333		6214.5		4522.8
55	Administrative and specialized secretaries	334		6687.75		5308
56	Regulatory government associate professionals	335		7097.5		6226

S. No	Occupation		Male		Female	
	Title	Code	Children	Adult	Children	Adult
57	Legal, Social and Religious Associate Professionals	341		5410.67		4648.33
58	Sports and fitness workers	342		3889.33		9126
59	Artistic, cultural and culinary associate professionals	343		3698.6		3517
60	Information and communications technology technicians	351	2000	6459.6		6757.5
61	Telecommunications and broadcasting technicians	352		8222		5907.5
62	Teaching associate professionals	361	2500	5705		5261
63	Special education teaching associate professionals	371		5033		4813
64	General office clerks	411		5756		4663
65	Secretaries (general)	412		4179		4048
66	Keyboard operators	413		5296.25		5764
67	Tellers, money collectors and related clerks	421		16636		4241.67
68	Client information workers	422	1500	4617.67		4076
69	Numerical clerks	431		4928.67		4953.5
70	Material-recording and transport clerks	432		3919.66		3817.67
71	Other clerical support workers	441		4354		3437.57
72	Travel attendants, conductors and guides	511	2550	5491.33		4746
73	Cooks	512		3287	1414	2160
74	Waiters and bartenders	513	1500	2676	1500	1724.5
75	Hairdressers, beauticians and related workers	514		3855	2200	2677
76	Building and housekeeping supervisors	515		4979.33	1518.5	2451
77	Other personal services workers	516	1960	4132.8	1500	2364.75
78	Street and market salespersons	521	1500	3219.5	1500	2191
79	Shop salespersons	522	1350	3194.67	1500	3686.67
80	Cashiers and ticket clerks	523		3968		3517
81	Other sales workers	524	1850	4750.14	1500	3178.14
82	Katikala retailers	5250		1500	1500	1440
83	Teji retailers	5260		1990		3500
84	Tela retailers	5270		2000		1200
85	Child care workers and teachers' aides	531		4958.5	1500	2563.5
86	Personal care workers in health services	532		3987	1500	3211
87	Protective services workers	541		3790		3712.2
88	Market gardeners and crop growers	611		4674.25		2984
89	Animal producers	612		5514.67		3619.33

S. No	Occupation		Male		Female	
	Title	Code	Children	Adult	Children	Adult
90	Mixed crop and animal producers	613		9296		7277
91	Forestry and related workers	621	2000	5438		4265
92	Fishery workers, hunters and trappers	622		6504		7071
93	Subsistence Livestock Farmers	632		2500		4305
94	Subsistence Mixed Crop and Live-stock Farmers	633		8765		4132
95	Subsistence Fishers, Hunters, Trappers and Gatherers	634		8067		4801
96	Building frame and related trades workers	711				
97	Building finishers and related trades workers	712		38816		900
98	Painters, building structure cleaners and related trades workers	713		5343.33		2000
99	Sheet and structural metal workers, welders and related workers	721	1500	4158.25		2500
100	Blacksmiths, toolmakers and related trades workers	722		5234.67		2428
101	Machinery mechanics and repairers	723	1500	5254		
102	Handicraft workers	731	1683.33	3397.75		3003.33
103	Printing trades workers	732		4883.67		2479
104	Electrical and electronic trades workers	741		5097.5		4447
105	Electronics and telecommunications installers and repairers	742		5163.5		325.5
106	Food processing and related trades workers	751	1500	3598.6	1500	2345.16
107	Wood theatres, cabinet-makers and related trades workers	752	2000	4015		3416.5
108	Garment and related trades workers	753		2327		2135.6
109	Other craft and related workers	754	1000	4936		3054.67
110	Mining and mineral processing plant operators	811	1550	7461.67		1525
111	Metal processing and finishing plant operators	812		5240		3237
112	Chemical and photographic products plant and machine operators	813		5154		3169
113	Rubber, plastic and paper products machine operators	814		2994.67	1500	2344
114	Textile, fur and leather products machine operators	815	1575	3542.57	1500	2179
115	Food and related products machine operators	816		4098.14		2680
116	Wood processing and papermaking plant operators	817		3966		3500

S. No	Occupation		Male		Female	
	Title	Code	Children	Adult	Children	Adult
117	Other stationary plant and machine operators	818		3167		1500
118	Assemblers	821	1475	4222.5	1500	2955.33
119	Locomotive engine drivers and related workers	831	10000	5560		2600
120	Car, van and motorcycle drivers	832	2050	4847		7620
121	Heavy truck and bus drivers	833		5601		
122	Mobile plant operators	834		9518.25		5000
123	Ships' deck crews and related workers	835		1500		
124	Domestic, hotel and office cleaners and helpers	911	1500	2408	1550	1845
125	Vehicle, window, laundry and other hand cleaning workers	912	2567	5480	1350	1889.3
126	Agricultural, forestry and fishery labourers	921	2183.33	3098.33	1604.33	2030.8
127	Mining and construction labourers	931	3328.5	4270	1828	2307.67
128	Manufacturing labourers	932	500	3058.5	2340	1909
129	Transport and storage labourers	933	3000	3661.25		1762.67
130	Food preparation assistants	941	1750	2381	1545.5	1793.5
131	Street and related sales and service workers	951	1150	3975	1500	3258
132	Street vendors (excluding food)	952		3028		2956
133	Refuse workers	961		2901.3	1500	2159
134	Other elementary workers	962	1339.75	3423.8	1486	1993.4
135	Other low-level workers not mentioned elsewhere	9999		5100		

Measuring and Valuing the Contribution of **Unpaid Care and Domestic Work (UCDW)** in Ethiopian Economy

SEPTEMBER

2025

ADDIS ABABA



NETWORK OF
ETHIOPIAN WOMEN'S
ASSOCIATIONS