Manusher Jonno Foundation

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Recognition of Women's Unaccounted Work and Its Inclusion in Gender Responsive Budgeting

Foreword

Historically, the production of household goods and services has been associated with female household members. Theseproducts or services have not been considered as part of the economy, creating stigma and confining women's contribution as less than their male counterparts. The stigma around household services either leads to overburdening of female familymembers if they decide to join formal labour force, or curtailing their opportunities of employment and education. The current economic framework ignores the practical scenario of households where production of such services is essential for survival and provision of factors of production for market. These services require time and effort and if produced by someone else, would have required remuneration or wage. Valuation of unpaid domestic work is the crucial first step in achieving recognition of women's unaccounted contribution. Without formal acknowledgment, the societal inferior perception and thus, norms about these tasks cannot be changed.

In light of the above, there is an urgent need to capture and evaluate women's contribution to the economy, particularly in the context of GDP. MJF strongly believes that if women do not get their due status and recognition, national development goals will remain unfulfilled along with the SDGs, and that violence and discrimination against women will be reduced if they achieve higher status in the family and society.The main objective of policy advocacy within MJF's nationwide campaign called 'Equality through Dignity' is formal recognition, valuation, and inclusion of women's unaccounted work in GDP.

It is in this backdrop, that the South Asian Network on Economic Modeling (SANEM) and Manusher Jonno Foundation (MJF) took the initiative to design a potential model for satellite accounts in Bangladesh context. Since the inclusion of household services in national accounts and GDP has not reached unanimous consensus, creation of satellite accounts can form therequired basefor gender responsive initiatives and inclusive policies. Satellite account creates a pathway for crucialconversations about the dominantperceptionsaround household chores and servicesbyrecognizing women's unaccounted and unpaidcontribution.

This study has developed a satellite account to capture the unaccounted works of women which will be treated as a separate account because the System of System of National Accounts (SNA) fails to represent non-marketed service activities performed by households (mostly female members) for private consumption and sustenance. The satellite account for Bangladesh has been constructed using two national datasets;the Time Use Survey (TUS, 2012) and Bangladesh Labour Force Survey (LFS, 2016-17).

Satellite accounts, as demonstrated in this study, allow economists to go beyond the strictly limited boundaries of SNA, including altering boundaries of economic activities. The findings and recommendations of the study draw attention to the urgent task of broadening the ambit of national accounting system to recognize and evaluate women's unaccounted productive activities. It is earnestly hoped that the comprehensive methodology and prototype presented in this study will prompt policy initiatives to address the current deficiencies in the national accounting system.

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1. Introduction

1.1 Background

Bangladesh ratified the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) and achieved the gender related targets set by the MDGs along with creation of National Women Development Policy 2011. Nonetheless, the country needs to look beyond surface to close the present gender gap and achieve the next goal regarding gender parity mentioned in SDG5 (gender equality). Achieving gender equality requires understanding the norms of gender division and their impact regarding every aspect of society. Access to participation in formal labour market and preparation period for that participation cannot be translated into results of similar proportion without understanding the gender based norms in households of a society. For instance, societal construct historically dictates across all societies that women undertake the bulk of unaccounted work (Boserup, 1970). However, the economic framework has been unable to include the valuation of aforementioned works in the national accounts. It is noteworthy that unpaid work of women can be divided into two types, i.e. unpaid family work and unpaid domestic work. Unpaid family work refers to the work performed to produce goods and services such as, in case of Bangladesh, most of the activities undertaken in agriculture sector are performed by women and unpaid domestic work refers to the care activities and other household tasks provided by women. According to European Institute for Gender Equality, unpaid domestic work refers to all the tasks associated with supporting and servicing the current and future workforce – those who undertake or will undertake productive work. The realm of unpaid domestic work includes childbearing and nurturing, but is not limited to these tasks.Irrespective of income and educational background of household, female portion is expected to perform reproductive work (Oakley, 1974).

The unpaid domestic work is an integral yet overlooked part of the economic system; recognition of which can provide dignity of labour for the workers. Although unpaid domestic work is the implicit binding agent of households, the academic definition of "work" excludes this type of tasks because of not being exchanged in market (Reid, 1934). Unpaid domestic labour has profound implications particularly among people living in poverty who cannot afford paid care, restricting opportunities for education and paid employment among female household members. Moreover, this workload intensifies in case of income inequality and economic crisis. In times of economic crisis such as recessions, households tend to curb expenditure by producing goods and services from inside instead of obtaining it from market. Interestingly, the amount of unpaid domestic labour done by male counterparts does not change much with change in employment status. Hence, the gender division of unpaid household work is less likely subject of resources and more likely related to gender norms and lack of dignity in performing those tasks (Silver, 1993). Moreover, due to the traditional gendered norms, care activities included in unpaid domestic labour performed by male counterparts are often performed as secondary roles and supplemented by the simultaneous supervision of female household members (Fursman et al., 2009). Therefore, limiting the burden upon female household members requires redistributing the unpaid domestic labour by recognizing and dignifying those tasks from academic and societal point of view (Beneria, 1999). Being time consuming, arduous and undervalued, unaccounted work reinforces gender inequalities. Unpaid domestic work enhances gender-based violence and limits women's political participation (Esplen et al., 2009). On the other hand, several studies have claimed that men have increased unpaid work time only slightly while women have increased paid work time substantially, meaning women are doing a "second shift" of unpaid work (Sayer, 2005).

In essence, lack of recognition, evaluation and redistribution of such unpaid domestic work has implications over health and overall productivity of women in society. Since, women has to perform unpaid domestic work even after being part of formal employment, their productivity in both household and workplace is either compromised or the workload is completed by risking her health to deterioration.

The widespread consensus among sociologists and other fields of social science dictate that lower rate of female labour force participation across the world can be partly attributed to unpaid domestic work performed by women. According to the current study, females who spend time in unpaid domestic work has a lower probability to participate in labour market by several percentage points (between 3-5 percentage points). In the context of Bangladesh, unaccounted work may be the reason behind the low female labour force participation. Moreover, the situation may deteriorate in future due to changing demographic requiring larger demand for care. Furthermore, rapid urbanization coupled with shifting societal construct incorporating increased proportion of nuclear households are being translated into lack of extended family members providing care. Historically, allocation for skill development, education or safety net often fail to factor in women's domestic workload resulting in decline in women's ability to care or to take up the benefits. Although recent advancement includes the introduction of gender sensitivity concerning specific policies; ensuring gender equality would require further focused approach on the way state tackles the recognition and valuation issues of unaccounted work. Therefore, it is state's duty to close the gender gap by positioning the gender division of labour at the root of gender inequality and discrimination against women through recognition of women's unaccounted labour. The gender responsive budget (GRB) can provide an initial base of the necessary steps towards recognising women's input in the economic growth and reinstate equal rights as it was intended by constitution.

1.2 Rationale

This study aims at constructing a satellite account which estimates the value of unaccounted and unpaid domestic works; assessing the prevailing policies and gender budget; realising the gap; and mooting policies to reallocate resources to construct gender responsive budget.

2. Unpaid Domestic Work

Women's 'economic contribution' can be broadly classified through 3 avenues: paid employment (wage and self), unpaid family work and unpaid domestic work. Females engaged in paid employment are part of employed population, earn wage or profit, and their production get included in the national accounts and GDP. Both formal and informal employment is included in this category. The production derived from unpaid family work portion is included in national accounts and GDP. Although females engaged in this category do not get remunerated or earn wage, they are counted as part of employed labour force. Economic activities where household partly contribute as production unit such as agriculture, small cottage industries etc. use the unpaid labour of family members. Since male family members enjoy the income derived from such activities, On the other hand, unpaid domestic work are those tasks inside a household that are not marketed, not considered as economic activity (Antonopoulos et al., 2010). Therefore, they are not included in national accounts or GDP. Thus, the production from this sector is unrecognized and unaccounted. Females engaged in this sector are not part of labour force and do not earn wage or any other kind of remuneration. However, engagement in unpaid domestic work refrain women from engaging in education or other employment activities (Huq, 2013).

2.1 Definition

Unpaid domestic work is still relatively new area of study for academicians from various field of social science. Moreover, what constitutes inside unpaid domestic work may vary according to the cultural cross section of different countries. The resolution I of the 19th International Conference of Labour Statisticians (ICLS) commenced by ILO has identified the range of activities covered by own use provision of services as:

a) household accounting and management, purchasing and/or transporting goods;
b) preparing and/or serving meals, household waste disposal and recycling;
c) cleaning, decorating and maintaining one's own dwelling or premises, durables and other goods, and gardening;
d) childcare and instruction, transporting and caring for elderly, dependent or other household members and domestic animals or pets, etc.;

In various other resources, such as, OECD stat, unpaid work included routine housework, shopping, care for household members, child care, adult care, care for non-household members, volunteering and travel related to household and other unpaid work (Ironmonger, 1996). OXFAM provided a list of activities to be included in unpaid care work in a study conducted upon factors and norms influencing unpaid care work. This list includes activities such as caring for children and the elderly, as well as cooking, cleaning, washing and fetching water or firewood. This study conducted a household survey to collect evidence from five rural communities in Colombia, Ethiopia, the Philippines, Uganda and Zimbabwe. According to Multinational Time Use Survey (MTUS) conducted by Centre for Time Use Research (Department of Sociology, University of Oxford), the following activities have been distinguished as being part of unpaid work: cooking/washing up, housework, non-routine domestic work, shopping, childcare, domestic-related travel, and education/study activities.

After decades of studies and discussions, International Classification of Activities for Time-Use Statistics incorporated a list of major activities in 2016. ICATUS-2016 was later endorsed by United Nations Statistical Commission. Among this list of activities, unpaid domestic services for household and family members and unpaid caregiving services for household and family members are included. These two subcategory of activities have been broadly defined inside unpaid domestic work in the current study.

Box 1: International Classification of Activities for Time-Use Statistics

1 Employment and related activities
2 Production of goods for own final use
3 Unpaid domestic services for household and family members
3.1 Food and meals management and preparation
3.2 Cleaning and maintaining of own dwelling and surroundings
3.3 Do-it-yourself decoration, maintenance and repair
3.4 Care and maintenance of textiles and footwear
3.5 Household management for own final use
3.6 Pet care
3.7 Shopping for own household and family members
3.8Travelling, moving, transporting or accompanying goods or persons related to unpaid domestic services for household and family members
39 Other unpaid domestic services for household and family members
4 Unpaid caregiving services for household and family members
4.1 Childcare and instruction
4.2 Care for dependent adults
4.3 Help to non-dependent adult household and family members
4.4 Travelling and accompanying goods or persons related to unpaid caregiving services for household and family members
4.9 Other activities related to unpaid caregiving services for household and family members
5 Unpaid volunteer, trainee and other unpaid work
6 Learning
7 Socializing and communication, community participation and religious practice
8 Culture, leisure, mass-media and sports practices
9 Self-care and maintenance

Source: ICATUS, (2016)[1]

2.2 Impact

Table 1 depicts the probability of labour force participation rate of married female using the data of Labour Force Survey, 2016-17. A simple probit regression shows the aforementioned probability according to different characteristics of households. For instance, the probability of labour force participation increases with age, although at a decreasing rate. Until higher secondary education level, the relationship between education and labour force participation is negative. However, in case of married female with university degrees, the probability is positive and 14.7 percent. Again, married female with children under five years are less likely to join the labour force, as well as married female living in urban locality. Married female engaged in unpaid domestic work are 1.8 percent less likely to join the labour force. With higher net household income and landholding, married female are less likely to join labour force. This implies that, females are likely to overcome the societal norms by joining labour force if the household is economically struggling. Again, if household heads are employed in agriculture or self-employment, the probability of married female joining labour force increases. Which means, the female family members of households with agriculture or self-employment profession tend to provide unpaid family work for the production process.

[1]*For detailed information, please check https://www.countingwomenswork.org/publications/working-papers*

Table 1: Labour Force Participation Rate of Married Female:

Explanatory variables	Married Female
Age	0.048*** (0.002)
Age-squared	-0.001*** (0.00002)
Primary or secondary passed	-0.056*** (0.008)
SSC or HSC passed	-0.065*** (0.011)
University passed	0.147*** (0.018)
Children	-0.002 (0.003)
Child under 5 years	-0.024*** (0.007)
Unpaid domestic work	**-0.018*** (0.0004)**
Net household income (natural log)	-0.035*** (0.006)
Household landholding	-0.028*** (0.006)
Urban	-0.095*** (0.013)
Head primary or secondary pa ssed	0.007 (0.008)
Head SSC or HSC passed	-0.044*** (0.010)
Head university passed	-0.075*** (0.013)
Head employed in agriculture	0.053*** (0.010)
Head self-employed	0.027*** (0.007)

Note: ***, ** and * indicate statistical significance at 1%, 5% and 10% levels respectively. The figures in the parentheses are the standard errors.
Source: Estimated from LFS (2016-17

2.3 Measurement

Valuation of unpaid domestic work is the crucial first step for achieving recognition and as part of acknowledgement. Without such acknowledgement, the societal inferior perception and thus, norms about these tasks cannot be changed. Economists and social scientists often rely on satellite account to count the unaccounted or unpaid work. This study will also develop a satellite account to capture the unaccounted works of women which will be treated as a separate account.

3. Satellite Account

While the SNA, scripted in 1947 and consequentially modified, assists in providing detailed framework for the national accounts and accordingly, GDP of an economy, it fails to take into account the non-marketed service activities produced by households (Catherine et al., 2007). In other words, SNA cannot include the services produced by household for own consumption and sustenance. However, along with the economy, valuation method of economy is transforming correspondingly. For example, the SNA methodology incorporated the distinctive and comprehensive classification of goods and services in 1993, which allowed national accounts and GDP to include the goods produced by households within production boundary. Moreover, the 2008 revision recognized services produced by households for its own consumption as economic work and considered the possibility of producing satellite accounts by respective countries to acknowledge the contribution of such household services in the economy.

3.1 Definition

Satellite accounts, as will be attempted in this study, allow economists to go beyond the strictly limited boundaries of System of National Accounts (SNA), including altering boundaries of economic activities (Teillet et al., 1988; UNSTATS, 2006). Thus, satellite accounts allow the restructuring or inclusion of previously available monetary and non-monetary information for improved understanding and advancement of a particular economic sector or field.

3.2 Importance of Satellite Account

Although the creation of such satellite accounts to reorganize and reevaluate various sectors or portion of economy is common across economic studies, the specific case of accounting the unrecognized household services deserves particular importance (Warren, 2011). The reason behind such importance is the usual producers of aforementioned household services and the socio-economic scenario emerged from overlooking their contribution in economy. The goods and services produced by households are produced by mostly female household members. Historically, the production of household goods and services has been affiliated with the female household members of every society. Specifically, the services produced by households can be broadly described as care giving, cooking, household management etc. which have not been considered as part of economy, creating social stigma around such works and confining the contribution of female members as less than their male counterparts. The stigma around household services refrain members from equal distribution of their production process overburdening the female portion of household if they decide to be a part of labour force, or simply curtail the opportunities of such inclusion of employment or education. While the current economic framework classifies these female household members as mostly NEET (not in education, employment and training), it ignores the practical scenario of households where production of such services is essential for the members' survival, and provision of factors of production for market. These services require time and effort to produce and if they were produced by someone else, would have required monetary compensation or wage. While the inclusion of household services in the national accounts and GDP has not yet reached in unanimous consensus, production of satellite account to understand the effects of such household services on GDP and economy as a whole can generate the necessary arguments for gender responsive initiatives and other inclusive policies. The satellite account further provides assistance in the much needed conversation about the existing perception of such household services through aiding in the recognition of women's unaccounted and unpaid household services.

3.3 Current Practices around the Globe

The inclusion of unaccounted and unpaid household services by producing a satellite account has been a relatively new phenomenon. The methodology of such accounts include replacement cost method and willingness to accept method. Replacement method considers a wage to the respective work performed by the household member if performed by someone else while willingness to accept method considers the member's educational and other backgrounds to calculate her probable wage if she performed those activities herself in exchange of monetary compensation. Replacement method can further be divided into generalist cost method and specialist cost method. The specialist cost method considers the wage given that the service provider has specialization on that specific service which is provided in the marketplace.

However, in reality, most of the household services are not marketed in developing countries and even in developed countries. Therefore, data for the wage determination for specialist cost method is difficult to obtain in most cases. On the other hand, generalist cost method considers the wage by the probable compensation for similar work if performed by an outsider of the household. In some cases, hybrid method consisting of both the generalist and specialist approach has been explored as well. The probable compensation used in hybrid method or generalist method can be determined by various ways including the average wage of the labour force, the average wage of the female labour force, minimum wage of the country etc. However, replacement method is comparatively realistic since the willingness to accept method has a greater possibility of overestimation or underestimation due to the nature of the method. Additionally, the satellite account erection requires data, which can be found from either time-use surveys or modules incorporated in other surveys. These surveys can produce necessary information regarding time spent by the household members producing household services.

Table 2: Unaccounted Work as percentage of GDP for Several Countries around the World

Country	Unaccounted work(% of GDP)
Turkey	21.0 (2018)
South Africa	22.0 (2016)
Uruguay	31.0 (2018)
India	45.0 (1999)
Columbia	39.0 (2015)
Vietnam	17.0 (2016)
Spain	24.0 (2016)
Ghana	14.0 (2016)
Senegal	22.0 (2016)
Costa Rica	13.0 (2015)

Table 2 represents the summarization of several studies conducted by the project titled Counting Women's Work by United Nations. One of the old studies on measuring the household services produced by households in Bangladesh used replacement cost method which showed that for the year 1989-90, GDP of Bangladesh would increase by 29 percent if unaccounted household services were included (Hamid et al., 1996). Further studies have evaluated both replacement cost method and willingness to accept method and the increase in GDP has been calculated to be more than 100 percent in some extent (Efroymson et al., 2007). For instance, replacement cost method and willingness to accept method produced valuation of unaccounted household services to be 76.8 percent and 87.2 percent respectively for the year 2013-14 (Khatun et al., 2015).

In the neighbouring South Asian countries, the scenario is similar to Bangladesh. In case of India, Nepal and Pakistan, studies using replacement cost method found the GDP to increase as much as 61 percent (Choudhary et al., 2009), 91 percent (Shreshtha et al., 2008) and 23 percent respectively (Arshad et al., 2008). Similarly, developed countries show a surge in GDP while accounted for the unaccounted and unpaid works of household. For example, satellite account of the United States for the year 1985, 1998, 2003, 2008 and 2010 were calculated using the replacement cost method and in case of the first four years mentioned, used the opportunity cost method as well. (Bridgman et al., 2012; Abraham et al., 2005).In case of opportunity cost method and willingness to accept method, GDP increased as much as 75 percent and 28 percent for the year

[2] *For detailed information, please check: https://www.countingwomenswork.org/publications/working-papers*

1985 (Ahmad et al., 2011). The satellite account of Canada calculated the satellite account using both the opportunity cost method and the replacement cost method and the opportunity cost method produced as much as 71 percent of GDP for the year 1971 (Adler et al., 1978). The satellite account in Australia used a hybrid method using both the generalist and specialist replacement cost method and the resulting valuation of unaccounted work represented 41.6 percent to 58.7 percent of GDP for the year 2006 (Australian Bureau of Statistics, 2014). The satellite account of Mexico, 2016 was based upon the dataset derived from the National Institute of Statistics and Geography (INEGI) and the methodology for the valuation was generalist replacement approach. An aggregation of G7 countries' satellite account was conducted using the latest available time use data for each countries and replacement cost method. Although, the culture regarding labour distribution in producing household services is comparatively different in the developed countries than the developing countries; which means that the unaccounted work is performed by both gender even if the amount of work performed varies.

4.Satellite Account for Bangladesh

Satellite account can capture the overall scenario of unpaid domestic work in the economy. The reason is it can record household unpaid or unaccounted activities of each household members (Benjamin, 2016; Katharine and Mackie, 2005; Ann, 1985). As unpaid domestic activities cannot be transacted into the market orientation for welfare optimization, this study will put an effort to calculate the value of these activities parallel to conventional market activities.

One of the most popular approaches to construct satellite account is the production approach. The base of such account is the hours spent in unpaid domestic activities which can be derived from Time Use Survey. Satellite account also contains shadow (i.e. proxy) market prices for corresponding hours spent on unpaid domestic activities for monetarising or quantifying these activities similar to conventional market activities in the economy. It is mentioned earlier that the base of usual satellite account is the hours spent of unpaid domestic activities. However, the value is aggregate in nature in the existing literature which is not optimal for observing heterogeneity within the population. Hence, we intend to disaggregate the population through several classifications to construct satellite account for Bangladesh. Such holistic approach will provide meaningful insights on the degree of unpaid work done by women and men which can lead us to proper policy suggestions. Figure 1 shows the overall framework.

Figure 1: Framework for Constructing Satellite Account

Identify the relevant national datasets	- Time Use Survey 2012 Data - Bangladesh Labour Force Survey 2016-17 Data
Define the unpaid domestic works	- Unpaid domestic services for own final use within household - Unpaid caregiving services to household members
Classify the unpaid domestic works	- LF (employed and unemployed) and not in LF) - Age group - Education level - Sector - Gender - Location
Calculate time spent on unpaid domestic works	
Estimate the proxy price	- Avg. hourly wage for day labourers - Avg. hourly wage of employed persons (except unpaid family workers)
Develop the contribution formula	- The numbers of employed, unemployed, and not in LF people for 2016-17
Gauge the monetary value of unpaid domestic works	- Employed: Generalist replacement cost method - Unemployed and Not in LF: Hybrid method (both replacement and opportunity cost method)

4.1 Dataset and Base of Analysis

The satellite account for Bangladesh has been constructed using two national datasets. These are Time Use Survey (TUS, 2012) and Bangladesh Labour Force Survey (LFS, 2016-17). Time Use Survey is a unique type of survey through which one can specifically derive hours spent on different activities in a day. Data is collected through a time diary for each hour for both SNA and Non-SNA activities. In the TUS (2012), there are 15 two digit broad activities which comprise all the market and non-market activities done by individuals in Bangladesh. Among these, unpaid domestic activities can be captured by "unpaid domestic services for own final use within household" (activity 06) and "unpaid caregiving services to household members" (activity 07). These activities can be further disaggregated into several five digit activities. Combined hours spent on the above mentioned activities is the actual time spent for unpaid domestic activities in a day for an individual. On the other hand, LFS (2016-17) provides overall scenario of the labour market of the economy of Bangladesh.

4.2 Location Classification

To understand the overall household unpaid work pattern in the economy, location classification has been carried out. Through this classification, intensity of unpaid domestic work can be observed from rural, urban and total Bangladesh's perspective.

4.3 Gender Classification

Gender classification has been done to capture the gender wise differences (across location classifications) in terms of doing unpaid and unaccounted work. This will give meaningful insights for strategic policy implications.

4.4 Employment Classification

After classifying location and gender, an employment classification within the population has been carried out. Such classification will reveal the behavioural pattern for doing unpaid or unaccounted domestic activities. As per employment classification, total population is divided into employed, not employed and not in labour force categories.

4.5 Age Classification

Age classification is done to explore the variation in doing unpaid domestic work as per different age categories given the above classifications. In this study, four age categories have been considered. First age category consists population between 15-29 years. Second and third age category consist population between 30-44 and 45-59 years respectively. Finally, fourth age category represents population of age 60 years and above.

4.6 Education Classification

Education classification has been carried out to disaggregate the population based on education qualification. Within the above classifications, the population is further disaggregated into five categories depending on respective educational attainment. These categories are no education, primary, secondary, SSC-HSC and graduate.

4.7 Sector Wise Classification

Sector wise classification has been done to understand variation in the intensity of doing unpaid domestic work done by employed persons by sectors. The sectors are Agriculture, Industry and Service. Sectoral classification is not applicable for those who are not employed and not in labour force as population of these categories are not directly associated with any market based economic activities. A snapshot of all the classifications can be depicted from Table 3.

Table 3: Overall Classification

Classification	Disaggregation Category
Location	▪ Rural ▪ Urban ▪ Bangladesh
Gender	▪ Male ▪ Female
Employment	▪ Employed ▪ Not Employed ▪ Not in Labour Force
Age Group	▪ 15-29 ▪ 30-44 ▪ 45-59 ▪ 60 and above
Education	▪ No Education ▪ Primary ▪ Secondary ▪ SSC-HSC ▪ Graduate
Sector	▪ Agriculture ▪ Industry ▪ Service

4.8 Average Hours Spent for Unpaid Domestic Activities

Each classification is mapped between the TUS (2012) and LFS (2016-17) before calculation of average hours spent by individuals. It means for example, if "n" number of entities (for example, sectors) are being considered in the Times Use Survey then same number of entities has to be present in Labour Force Survey as well. Finally, Given the classifications, average hours spent for household unpaid domestic activities have been calculated by the following formula.

$$H^{lfs} = \frac{T\ H^{lfs}}{\mathbf{N}}$$

H^{lfs}_{unpaid} = Per day hours spent in unpaid domestic work for aforementioned labour force status

TH^{lfs}_{unpaid} = Hours Spent on unpaid domestic activities for total population given the classifications

N = Population given the classifications

4.9 Proxy Prices for unpaid domestic activities

Two proxy prices have been calculated which are actually average hourly wages. Firstly, average hourly wage of day labourers has been calculated from LFS (2016-17) for both male and female by location. Secondly, average hourly wage of employed persons (except unpaid family workers engaged with economic activity) has been calculated using LFS (2016-17). The numbers are disaggregated by age, education, gender and location.

$$W^{i}_{2016\text{-}17} = \frac{TW^{i}}{N}$$

$W^{i}_{2016\text{-}17}$ = Hourly wage given the classification
$TW^{i}_{2016\text{-}17}$ = Total wage given the classification
N = Population given the classification

4.10 Developing Formulae for Measuring Unpaid Domestic Work

To measure the value of unpaid domestic work in GDP for both male and female, we have developed three different formulae based on the existing literature. Measuring the value of unpaid domestic work done by employed persons is done through Replacement Cost Method (RCM). By following generalist RCM (UNECE, 2017), unpaid domestic work done by employed persons is being monetarised by a minimum wage which the average wage of day labourers. Value of unpaid domestic work for employed persons of 2016-17 has been calculated from following formula.

$$V^{emp}_{unpaid} = \frac{D \times EMP_{2016\text{-}17} \times W^{d}_{2016\text{-}17} \times H^{emp}_{unpaid}}{GDP^{C}_{2016\text{-}17}}$$

V^{emp}_{unpaid} = Value of unpaid household work for employed persons of 2016-17
D = Number of days in a year
$EMP_{2016\text{-}17}$ = Number of employed persons for 2016-17
$W^{d}_{2016\text{-}17}$ = Hourly wage for day labourers in 2016-17
H^{emp}_{unpaid} = Per day hours spent in unpaid household work by employed persons
$GDP^{C}_{2016\text{-}17}$ = GDP at current prices for 2016-17

For the persons who are not employed and not in labour force, a hybrid approach has been considered for calculating the contribution of unpaid domestic work in GDP. The hybrid approach is a mixture of both replacement and opportunity cost method. Adding opportunity cost in the formulae enables us to quantify the portion of the time spent for unpaid domestic activities which could have been used for doing other economic activities. Such portion of the time spent by individuals has been quantified by the average wage of employed person (UNECE, 2017). Value of unpaid domestic work for persons who are not employed and not in labour force in 2016-17 have been calculated from following formula.

$$V_{unpaid}^{nnemp} = \frac{D \times UNEMP_{2016\text{-}17} \times [\{W_{2016\text{-}17}^{d} \times H_{unpaid}^{emp}\} + \{W_{2016\text{-}17}^{emp} \times (H_{unpaid}^{unpemp} - H_{unpaid}^{emp})\}]}{GDP_{2016\text{-}17}^{C}}$$

V_{unpaid}^{unemp} = Value of unpaid household work for employed persons of 2016-17

D = Number of days in a year

$UNEMP_{2016\text{-}17}$ = Number of unemployed persons for 2016-17

$W_{2016\text{-}17}^{d}$ = Hourly wage for day labourers in 2016-17

H_{unpaid}^{emp} = Per day hours spent in unpaid household work by employed persons

$W_{2016\text{-}17}^{emp}$ = Hourly wage for employed persons in 2016-17

H_{unpaid}^{unemp} = Per day hours spent in unpaid household work by unemployed persons

$GDP_{2016\text{-}17}^{C}$ = GDP at current prices for 2016-17

$$V_{unpaid}^{nlf} = \frac{D \times NLF_{2016\text{-}17} \times [\{W_{2016\text{-}17}^{d} \times H_{unpaid}^{emp}\} + \{W_{2016\text{-}17}^{emp} \times (H_{unpaid}^{nlf} - H_{unpaid}^{emp})\}]}{GDP_{2016\text{-}17}^{C}}$$

V_{unpaid}^{nkf} = Value of unpaid household work for persons who are not in labour force in 2016-17

D = Number of days in a year

$NLF_{2016\text{-}17}$ = Number of unemployed persons for 2016-17

$W_{2016\text{-}17}^{d}$ = Hourly wage for day labourers in 2016-17

H_{unpaid}^{emp} = Per day hours spent in unpaid household work by employed persons

$W_{2016\text{-}17}^{emp}$ = Hourly wage for employed persons in 2016-17

H_{unpaid}^{nlf} = Per day hours spent in unpaid household work by unemployed persons

$GDP_{2016\text{-}17}^{C}$ = GDP at current prices for 2016-17

4.11 Satellite Account Template

Status	Age	Education	Sector	Urban		Rural		Total	
				Male	Female	Male	Female	Male	Female
Employed	15-29	No Education	Agriculture						
			Industry						
			Service						
		Primary	Agriculture						
			Industry						
			Service						
		Secondary	Agriculture						
			Industry						
			Service						
		SSC and HSC	Agriculture						
			Industry						
			Service						
		Graduate	Agriculture						
			Industry						
			Service						
	30-44	No Education	Agriculture						
			Industry						
			Service						
		Primary	Agriculture						
			Industry						
			Service						
		Secondary	Agriculture						
			Industry						
			Service						
		SSC and HSC	Agriculture						
			Industry						
			Service						
		Graduate	Agriculture						
			Industry						
			Service						
	45-59	No Education	Agriculture						
			Industry						
			Service						
		Primary	Agriculture						
			Industry						
			Service						
		Secondary	Agriculture						
			Industry						
			Service						
		SSC and HSC	Agriculture						
			Industry						
			Service						
		Graduate	Agriculture						
			Industry						
			Service						
	60+	No Education	Agriculture						
			Industry						
			Service						
		Primary	Agriculture						
			Industry						
			Service						
		Secondary	Agriculture						
			Industry						
			Service						
		SSC and HSC	Agriculture						
			Industry						
			Service						
		Graduate	Agriculture						
			Industry						
			Service						
	All	No Education	Agriculture						
			Industry						
			Service						
		Primary	Agriculture						
			Industry						

Status	Age	Education	Urban		Rural		Total	
			Male	Female	Male	Female	Male	Female
Unemployed	15-29	No Education						
		Primary						
		Secondary						
		SSC and HSC						
		Graduate						
	30-44	No Education						
		Primary						
		Secondary						
		SSC and HSC						
		Graduate						
	45-59	No Education						
		Primary						
		Secondary						
		SSC and HSC						
		Graduate						
	60+	No Education						
		Primary						
		Secondary						
		SSC and HSC						
		Graduate						
	All	No Education						
		Primary						
		Secondary						
		SSC and HSC						
		Graduate						

Status	Age	Education	Urban		Rural		Total	
			Male	Female	Male	Female	Male	Female
Not in LF	15-29	No Education						
		Primary						
		Secondary						
		SSC and HSC						
		Graduate						
	30-44	No Education						
		Primary						
		Secondary						
		SSC and HSC						
		Graduate						
	45-59	No Education						
		Primary						
		Secondary						
		SSC and HSC						
		Graduate						
	60+	No Education						
		Primary						
		Secondary						
		SSC and HSC						
		Graduate						
	All	No Education						
		Primary						
		Secondary						
		SSC and HSC						
		Graduate						

5. Key Results

Average hours spent in unpaid domestic work in Bangladesh can be showed by Table 4[3] . It can be seen that females spent significantly higher amount of time than male counterpart in doing unaccounted domestic activities. Females who not in labour force spend 6.38 hours daily on average which is the highest among the three categories. Females from employed and unemployed categories spend 3.08 and 5.97 hours daily respectively. On average male counterpart spends 1.52 hours daily. Males from not in labour force category spend daily 1.68 hours whereas, males from employed and unemployed category spend daily 1.28 and 1.59 hours respectively.

[3]Please see the detail in Annex A, Annex B and Annex C.

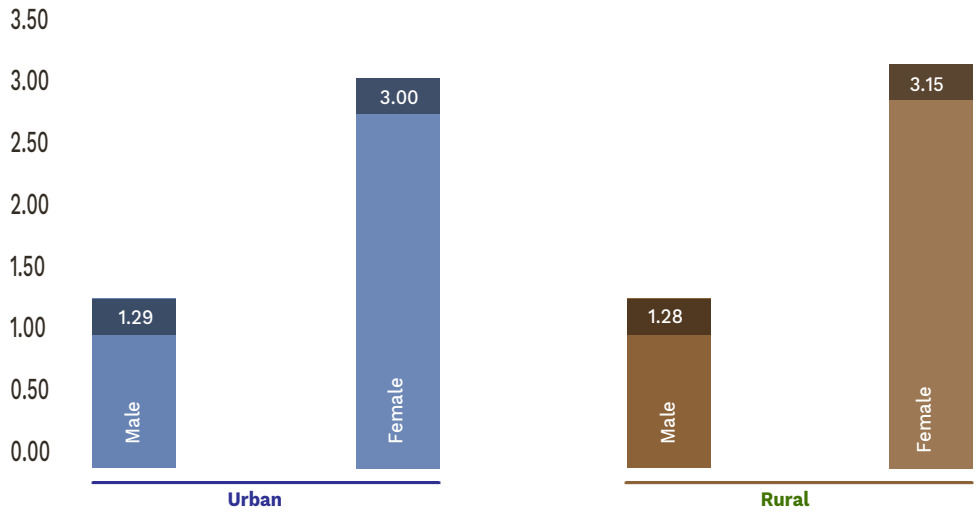
Table 4: Summary of Hours Spent in Unpaid Domestic Work in Bangladesh

Category	Male	Female
Employed	1.28	3.08
Unemployed	1.59	5.97
Not in LF	1.68	6.38

Source: Calculated from TUS (2012)

Considering the employed population, Hours spent in unpaid domestic work can be represented by Figure 2. Both in urban and rural areas, Female tends to provide longer hours for conducting domestic unaccounted activities. On average, females spend 3.00 hours and 3.15 hours daily both in urban and rural areas respectively. On the other hand, Males form from both urban and rural areas spend daily 1.29 hours and 1.28 hours respectively.

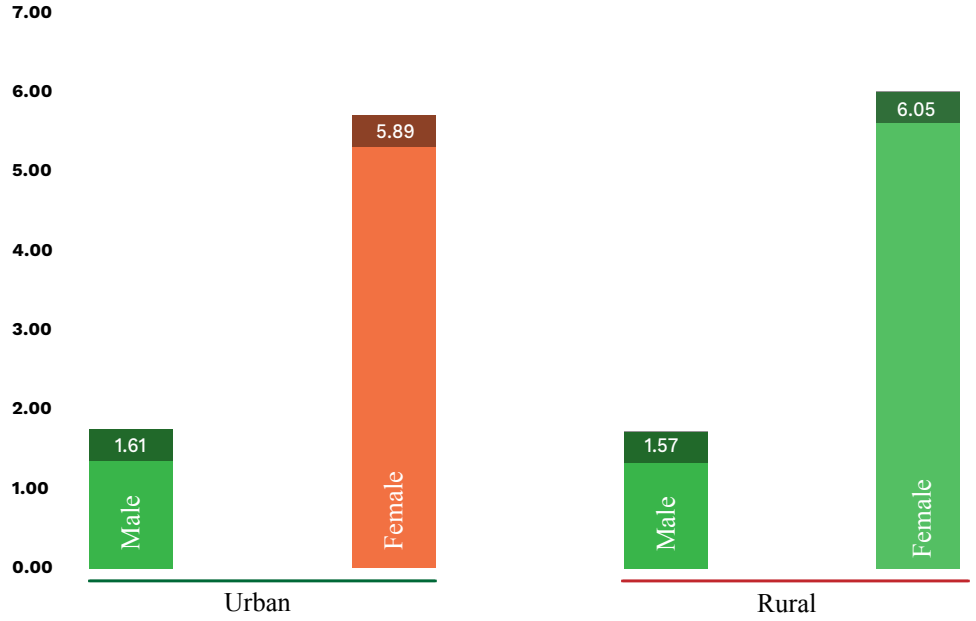
Figure 2: Hours Spent in Unpaid Domestic Work by Employed Population



Source: Calculated from TUS (2012)

Figure 3 depicts the pattern of doing unpaid domestic work in unemployed population. Comparing with employed people (Figure 2), unemployed people spend longer hours in doing unpaid domestic activities. Males in unemployed category both in urban and rural areas spend daily 1.61 and 1.57 hours respectively. Females of unemployed category on the other hand spend considerably higher amount of time in unpaid domestic work. Females from the urban area spend 5.89 hours daily. In the rural areas females spend daily 6.05 hours on average which is 2.73 percent higher than the hours spent by females of urban areas.

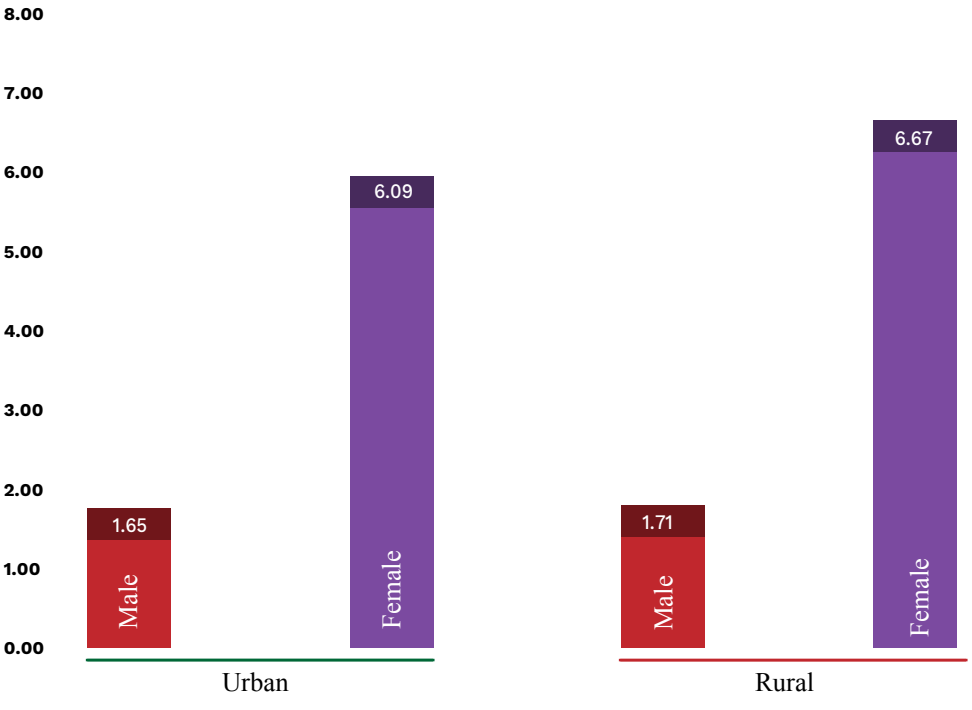
Figure 3: Hours Spent in Unpaid Domestic Work by Unemployed Population



Source: Calculated from TUS (2012)

Hours spent in unpaid domestic work by persons who are not in labour force can be showed by Figure 4. Females of this category spend over 6 hours daily for conducting unpaid domestic activities. Daily average hours spent in unpaid domestic work by females in urban area is 6.09 hours daily. Besides, rural females spend on average 6.67 hours. The amount spent by rural females is 9.5 percent higher than the hours spent by urban females. On the other hand, male counterpart spends less amount of time than females do. Both in urban and rural areas males daily spend 1.65 hours and 1.71 respectively.

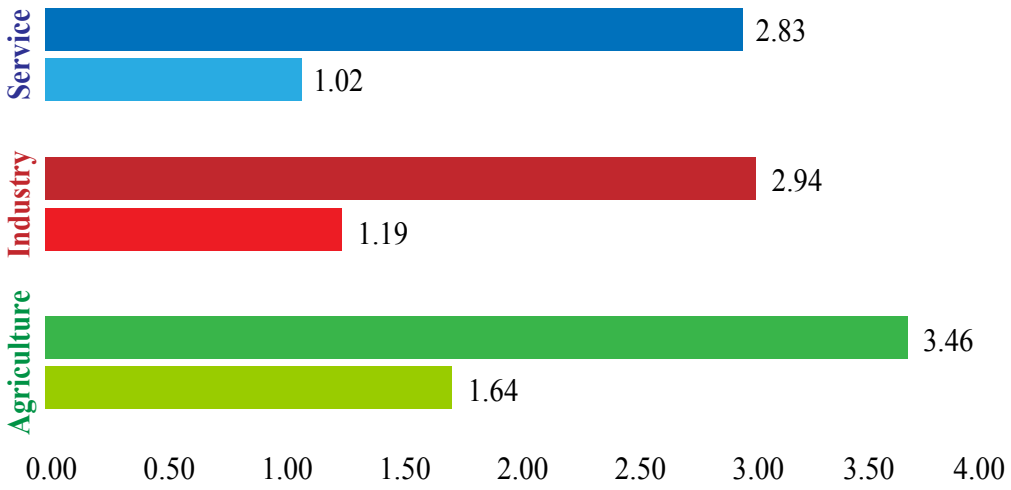
Figure 4: Hours Spent in Unpaid Domestic Work by the Population of Not in Labour Force



Source: Calculated from TUS (2012)

Hours spent in doing unpaid domestic work of employed persons (male and female) by sectoral disaggregation can be presented by Figure 5. As expected employed females tend to spend higher time in doing unaccounted domestic activities in their houses. In the agriculture sector a female spends 3.46 hours daily. In contrast, a male spends 1.64 hours which is 1.82 hours less than what a female spends for unaccounted activities in the households. In the industry sector, on average a male spends 1.19 hours for doing unpaid domestic work. On the other hand, a female spends 2.94 hours daily which is 1.75 hours more than a male spends. Finally, in the service sector a male spends 1.02 hours on unpaid work daily and the female counterpart spends 2.83 hours.

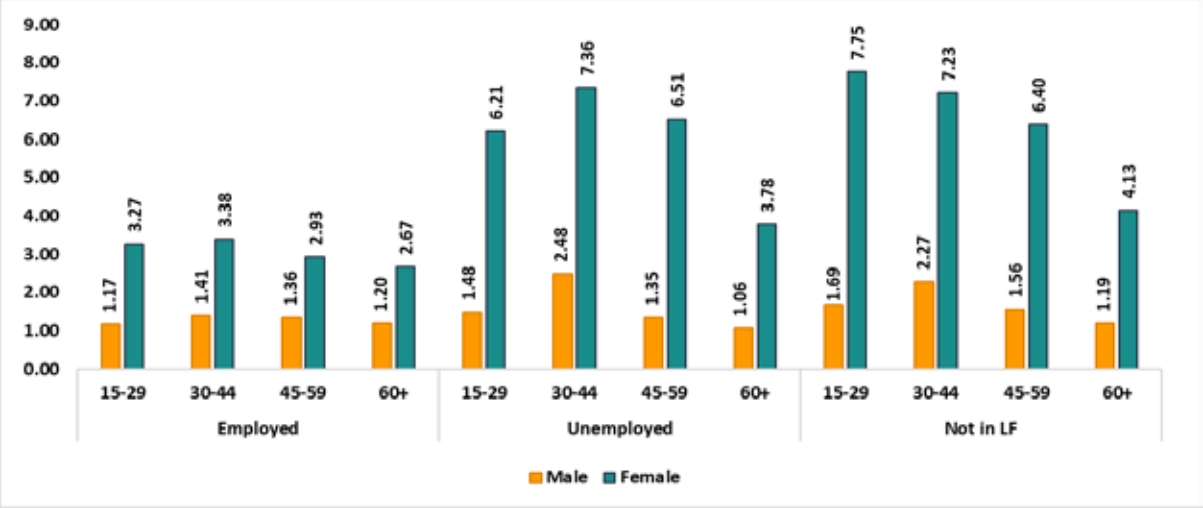
Figure 5: Hours Spent in Unpaid Domestic Work of Employed Persons by Sector and Sex



Source: Calculated from TUS (2012)

Figure 6 illustrates the patterns of hours spent in unpaid domestic work in terms of labour force status with sex and age. Looking at the employed category, it can be observed that both male and female of age between 30-44 years spend higher time than any other age group in the employed category. Males spend daily 1.41 hours and females spend daily 3.38 hours which is 1.97 hours more than hours spent by male counterpart. Females who are aged 60 years and above spend the lowest amount of time with respect to females of other age groups in the employed category. Females of this age group daily spend 2.67 hours for unpaid domestic works. Similar to the employed category, both male and female who are aged between 30-44 years in the unemployed category tend to spend longer time in unpaid domestic activities. Females spend daily 7.36 hours. Males spend 2.48 hours which is 4.88 hours less than the hours spent by females. In the age group of 60 years and above, males spend 1.06 hours and females spend 3.78 hours daily. The hours spent by the persons of this age group are the lowest with respect to the other age groups in the unemployed category. In the category of not in labour force, females who are aged between 15-29 years spend higher time in doing unpaid activities given other females who are not in labour force. Females of this age group spend daily 7.75 hours for unaccounted household works. On the other hand, males who are aged between 30-44 years spend higher time for unpaid work with respect to males of other age groups of not in labour force category. Males of this age group spend 2.27 hours daily for doing unpaid domestic work. Male and female who are aged 60 and above spend the lowest time in doing unpaid work with respect to others who are not in labour force. Both male and female spend daily 1.19 hours and 4.13 hours respectively.

Figure 6: Hours Spent in Unpaid Domestic Work by Labour Force Status, Sex and Age



Source: Calculated from the developed formulae

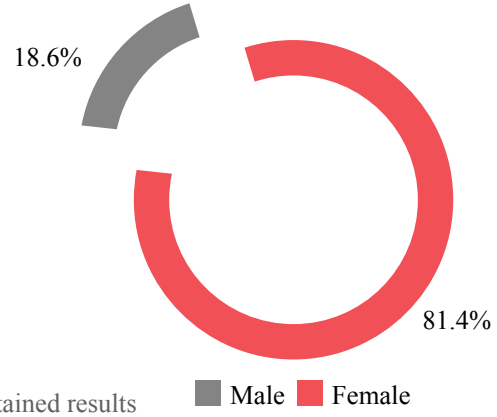
Table 5 represents the summary of the values of unpaid domestic work as percent of GDP[4]. Total value of unpaid work is 48.54 percent of the GDP of FY 2016-17. Value of unpaid domestic work done by employed, unemployed and not in labour force categories are 13.71 percent, 1.50 percent and 33.33 percent respectively. Value of unpaid domestic work the highest for females who are not in labour force. The amount is 31.41 percent of the GDP.

For males, the highest amount comes from the employed category. The value of unpaid work done by employed male is 6.86 percent of the GDP.

Category	Male	Female	Both
Employed	6.86	6.85	13.71
Unemployed	0.24	1.26	1.50
Not in LF	1.92	31.41	33.33
Total	9.02	39.52	48.54

Total value of unpaid domestic work done by males is 9.02 percent of the GDP. On the other hand, total value of unpaid domestic work done by females is 39.52 percent of the GDP. In terms of contribution, Males account for 18.6 percent and females account for 81.4 percent of the total value of unpaid domestic work which can be illustrated from Figure 7.

Figure 6: Hours Spent in Unpaid Domestic Work by Labour Force Status, Sex and Age

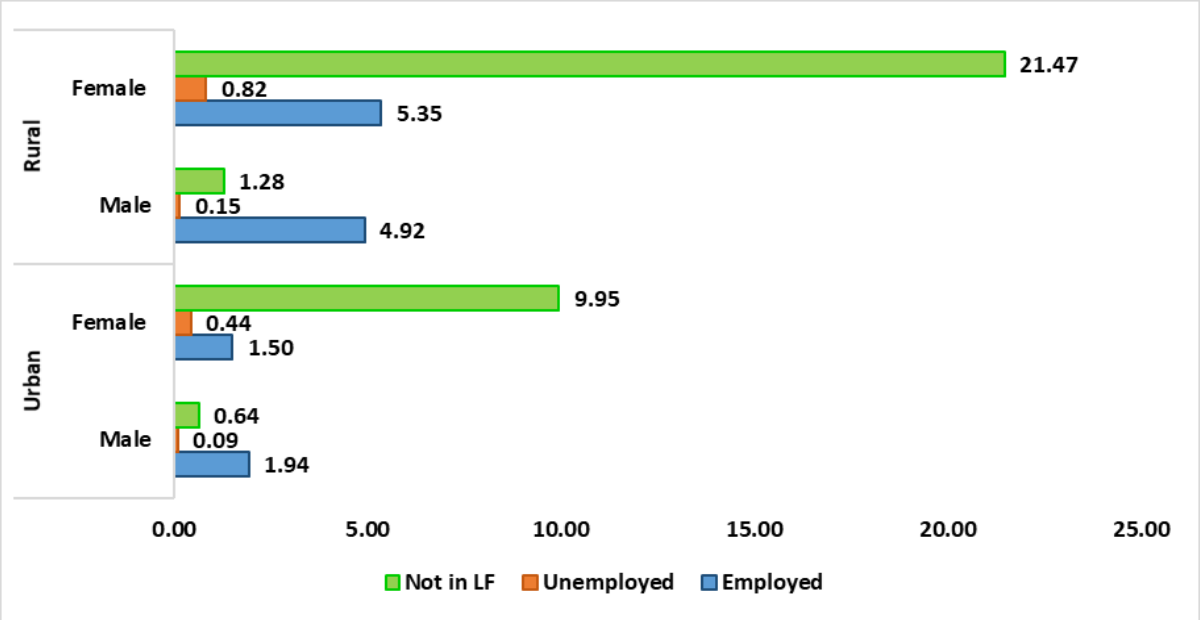


Source: Calculated from obtained results

[1] Please see the detail in Annex D, Annex E and Annex F.

Value of unpaid domestic work in terms of location, labour force and sex status can be seen from Figure 8. Both in urban and rural areas, females who are not in labour force have higher values. Values of unpaid domestic work of both urban and rural females are 9.95 percent and 21.47 percent of the GDP respectively. Employed females value for unpaid domestic work is higher in rural areas than the value of urban area. Unpaid domestic work value of employed females of rural areas is 5.35 percent of the GDP whereas, value of employed females of urban areas is 1.50 percent of the GDP. On the other hand, unpaid value of male who are employed is 4.92 of the GDP percent which is 1.94 percent of the GDP in urban areas. Furthermore, calculated values for males from not in labour force category both in urban and rural areas are 0.64 percent and 1.28 percent of the GDP.

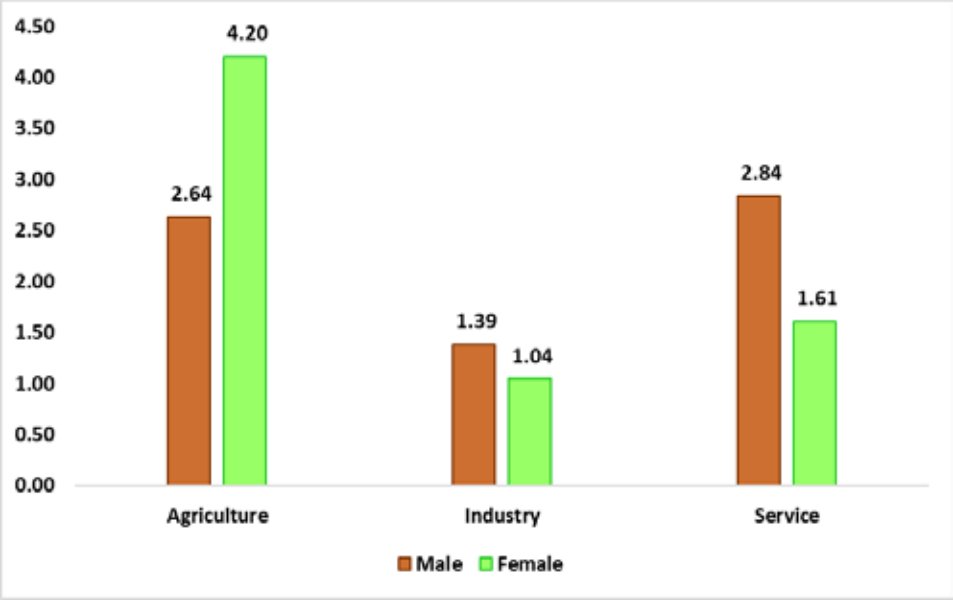
Figure 8: Value of Unpaid Domestic Work by Locality, Labour Force Status and Sex (% of GDP)



LoreSource: Calculated from the developed formulaem ipsum

Figure 9 illustrates the value of unpaid domestic work of employed persons with respect to sectoral disaggregation and sex. Values of unpaid domestic work done by employed persons from agriculture sector are higher than the values obtained from other two sector. Within the agriculture sector, value of unpaid domestic work done by females is higher than the value of males. Unpaid domestic work value of females is 4.20 percent of GDP whereas, the value of unpaid domestic work done by males is 2.64 percent of GDP. In the industry sector, value of unpaid work done by males is higher than the value of females. The values of unpaid domestic work done by both male and female in industry sector are 1.39 percent and 1.04 percent of the GDP respectively. Similarly, the values of unpaid domestic work for both male and female are 2.84 percent and 1.61 percent of the GDP respectively.

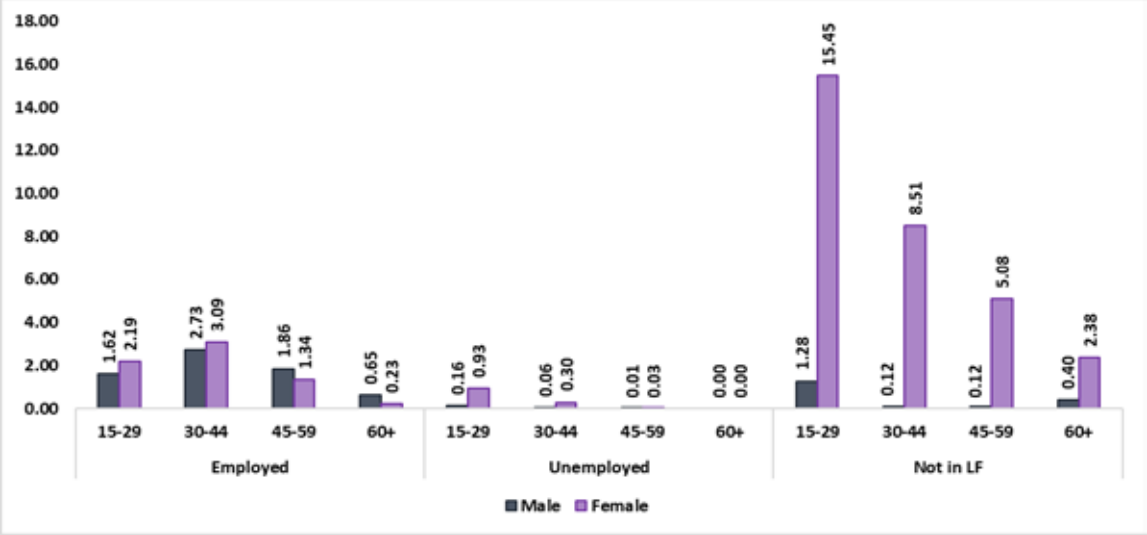
Figure 9: Value of Unpaid Domestic Work of Employed Persons by Sector and Sex (% of GDP)



LoreSource: Calculated from the developed formulaem ipsum

The values of unpaid domestic work in terms of labour force status, sex and age can be depicted from Figure 10. In the employed category, value of unpaid work done by females who are aged between 30-44 years is higher than females of other age groups in the employed category. The value is 3.09 percent of the GDP. The value of unpaid domestic work done by males of the same category is 2.73 percent of the GDP. Besides, the values of unpaid work done by males of different age groups in the employed category are relatively higher than the values of both unemployed and not in labour force male population. In the unemployed category, the value of unpaid work done by females who are aged between 15-29 years is higher than other females of the category. The value is 0.93 percent of the GDP. Besides, the value of unpaid domestic work done by males of this age group is 0.16 percent of the GDP. The value of unpaid domestic work done females who are not in labour force and aged between 15-29 is the highest in all labour force categories. The amount is 15.45 percent of the GDP. Moreover, the value of unpaid work done by females who are not in labour force is higher than any other categories as well.

Figure 10: Values of Unpaid Domestic Work by Labour Force Status, Sex and Age (% of GDP



LoreSource: Calculated from the developed formulaem ipsum

6. Gender Responsive Budgeting and Unpaid Domestic Work

Budget is the most important financial document for any given state. Managing government resources by reflecting upon the characteristics, addressing and supporting the implementation of certain policies has been widely accepted around the world. Although the budgetary document is gender neutral as it does not acknowledge the budgetary allocation from a gendered perspective, various studies have argued it to be "gender blind" and reiterated the importance of such analysis (Waring, 1994). Although various gender sensitive laws, acts and programs have been present in budget for centuries, gender responsive budgeting is a relatively new phenomenon endorsed by United Nations since the nineties. Gender responsive budgeting (GRB) is a holistic approach to understand and evaluate the gendered impact of budget (Sarraf, 2003). GRB does not refer to female targeted budgetary allocation; rather inspects the whole budget according to its impact based on gender. According to Elson, "…a gender responsive budget initiative aims to analyze any form of public expenditure, identifying implications and impacts on women" (Elson, 2001).

Table 6: Budgetary allocation for women and corresponding number of ministries of Bangladesh

Fiscal year	Allocation for women in budget (%)	Allocation for women in GDP (%)	Number of ministries and divisions
2009-10	24.65	3.95	4
2010-11	26.32	4.36	10
2011-12	26.15	4.61	20
2012-13	28.68	5.23	25
2013-14	27.64	5.06	40
2014-15	27.74	4.23	40
2015-16	27.17	4.16	40
2016-17	27.25	4.73	40
2017-18	27.99	5.04	43
2018-19	29.65	5.43	43

Source: Ministry of Finance, Government of Bangladesh

For instance, in case of Bangladesh, based on several criteria set by the ministry of finance, budgetary allocation of every departments and ministries is analysed. However, smaller portion of female presence in management level translates into inability to provide properly allocated and planned programs in the budget. Table 7 depicts the budgetary allocation for women in the last one decade in Bangladesh. According to the table, budgetary allocation for women has not increased significantly over the past decade. Although, the number of ministries and divisions involved in implementing this budget has increased tenfold over the past decade, the allocation has been around only 5 percent of GDP. Moreover, regardless of the proposed budget, the revised budget experience shrinkage in the budgetary allocation for women. Moreover, GRB does not include the impact of unpaid domestic work resulting in an ineffective approach to achieve the gender sensitiveness. Since women's involvement in unpaid domestic work significantly affects her ability of utilizing the benefits of the targeted programs, including unpaid work in GRB can provide the wholesome perspective necessary to achieve gender equality. While GRB provides important insights to allocate more gender sensitive budgets, absence of unpaid domestic work in the GRB restricts the possibility of analyzing the budget with respect to overall female population.

7. Key Challenges

• **Conceptual Challenges:** The importance of valuation of unpaid domestic work is not widely recognized in Bangladesh. Moreover, the valuation process of unpaid domestic work is often mischaracterized as if the studies are proposing to include the valuation in the national accounts. While the current study has stressed the importance of including the unpaid domestic work in gender responsive budgeting, it does not imply to include such valuation in national accounts.

• **Methodological Challenges:** The concept of satellite account to measure unpaid work is relatively new phenomenon. Moreover, the proxy price derivation process can be difficult due to unavailability of data and relevant surveys.

• **Availability of data:** Research and informed policymaking requires regularly collected, extensive and authentic data. Bangladesh has so far completed only one nation-wide performed Time-Use survey, which is standard source of information to perform various studies. Time-Use surveys have to be conducted on regular basis to update the derived satellite account.

• **Effectiveness:** The method of gender budget is subjective and without effective linkage with unpaid care work, it cannot reflect the situation regarding overall female population. Moreover, GRB can only provide insights for policymakers, which has to be translated into gender sensitive budgeting by actions.

8. Policy Recommendations

The 3 Rs (Recognition, Reduction, and Redistribution) framework suggested by Diane Elson and endorsed by UNDP addresses unpaid work from interconnected dimensions. The socio-economic perspective of different countries will provide the unique starting point for different countries.

Recognize

•**Firstly,** Bangladesh must strengthen its collection of primary datasets through regular, and comprehensive surveys. For instance, surveys comprising specific goals such as time-use survey etc. are pre-requisite for computation of such satellite accounts.

•**Secondly,** Bangladesh need to maintain regularly updated satellite account which includes the contribution of unpaid domestic work.

•**Finally,** government should undertake necessary policy steps (e.g. committee of experts etc.) towards reforming the GRB analysis by incorporating unpaid work. Gender budgeting should be carried out to attain gender equality through gender sensitive budgeting rather than in a mechanical way. Monitoring and evaluation can be used periodically to evaluate the attained outcome so far.

Reduce

•**Firstly,** Reduction of unpaid work burden can be achieved through provision of alternative support system (e.g. day care etc.). However, quality control in such support system is extremely crucial. Care service (e.g. day care, agencies to provide professional cook and other support stuffs etc.) should be incentivized to fully flourish into a service sector. Government can play vital role in providing related education and training necessary to be employed in this sector.

•**Secondly,** gender friendly environment in educational institutes and workplaces hould be ensured (e.g. proportionate seats in bus, properly regulated and secured hostels etc.). Private sector should be incentivized to ensure gender sensitive environment (tax rebate, cheaper credit facility etc.). Maternity and paternity leave along with flexible working hour for women should be effectively implemented in every sector.

Redistribute

•**Firstly,** regularly organized root-level awareness raising programs regarding unpaid work by the government is important. Private sectors, civil society and other key stakeholders should be incorporated in such programs to achieve the desired outcome.

•**Secondly,** national curriculum should be gender sensitive.

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Annex A: Hours Spent in Unpaid Domestic Work by Employed Population

Status	Age	Education	Sector	Urban		Rural		Total	
				Male	**Female**	**Male**	**Female**	**Male**	**Female**
Employed	15-29	No Education	Agriculture	1.70	2.13	1.11	2.47	1.41	2.30
			Industry	1.19	2.02	1.39	3.49	1.29	2.76
			Service	1.16	3.20	0.57	4.01	0.87	3.61
		Primary	Agriculture	2.02	4.77	1.37	3.34	1.70	4.06
			Industry	1.30	3.49	0.93	3.73	1.12	3.61
			Service	0.99	2.59	0.76	2.94	0.88	2.77
		Secondary	Agriculture	1.47	4.45	1.14	6.12	1.30	5.29
			Industry	1.43	3.14	0.66	1.94	1.05	2.54
			Service	0.68	4.08	1.09	2.75	0.89	3.42
		SSC and HSC	Agriculture	1.35	2.92	2.26	2.70	1.80	2.81
			Industry	1.02	3.90	1.62	3.89	1.32	3.89
			Service	0.79	3.02	0.85	2.54	0.82	2.78
		Graduate	Agriculture	0.73	3.15	1.14	3.65	0.93	3.40
			Industry	1.03	3.35	2.13	3.53	1.58	3.44
			Service	0.77	3.15	0.32	3.10	0.54	3.12
	30-44	No Education	Agriculture	2.07	4.11	1.47	4.60	1.77	4.36
			Industry	1.12	2.22	1.68	2.46	1.40	2.34
			Service	0.92	3.20	0.90	2.20	0.91	2.70
		Primary	Agriculture	2.14	5.16	2.04	4.82	2.09	4.99
			Industry	1.09	5.19	0.99	3.29	1.04	4.24
			Service	1.20	4.00	0.99	3.14	1.10	3.57
		Secondary	Agriculture	2.49	3.60	2.07	3.81	2.28	3.70
			Industry	1.94	2.12	1.19	3.13	1.57	2.62
			Service	0.85	2.07	1.01	2.71	0.93	2.39
		SSC and HSC	Agriculture	2.38	5.54	2.50	3.20	2.44	4.37
			Industry	1.10	1.11	0.99	3.08	1.05	2.09
			Service	1.23	3.20	1.11	3.03	1.17	3.11
		Graduate	Agriculture	0.91	3.00	1.14	3.07	1.02	3.03
			Industry	0.76	3.56	0.99	3.69	0.88	3.63
			Service	1.49	4.07	1.45	3.06	1.47	3.57
	45-59	No Education	Agriculture	1.95	3.90	1.87	3.53	1.91	3.71
			Industry	1.03	2.23	0.84	3.33	0.93	2.78
			Service	0.94	1.99	0.99	2.49	0.97	2.24
		Primary	Agriculture	1.88	3.70	1.84	4.18	1.86	3.94
			Industry	0.71	2.64	0.57	2.94	0.64	2.79
			Service	1.15	3.04	0.99	2.82	1.07	2.93
		Secondary	Agriculture	2.10	3.43	2.48	3.85	2.29	3.64
			Industry	1.16	2.77	1.18	3.76	1.17	3.27
			Service	0.89	1.83	0.90	1.99	0.89	1.91
		SSC and HSC	Agriculture	2.30	4.43	2.07	4.48	2.18	4.46
			Industry	1.63	3.09	1.72	4.08	1.67	3.59
			Service	2.19	2.22	0.82	2.30	1.50	2.26
		Graduate	Agriculture	0.81	1.12	1.09	1.88	0.95	1.50
			Industry	1.36	2.33	1.13	2.65	1.25	2.49
			Service	1.09	2.73	1.11	2.28	1.10	2.51

	60+	**No Education**	**Agriculture**	**2.18**	**3.78**	**1.00**	**3.25**	**1.59**	**3.51**
			Industry	1.04	2.63	0.21	1.30	0.63	1.97
			Service	0.88	2.24	0.74	3.59	0.81	2.91
		Primary	Agriculture	2.74	2.93	1.56	3.00	2.15	2.96
			Industry	0.56	2.96	2.88	2.88	1.72	2.92
			Service	0.83	2.90	0.68	3.09	0.76	2.99
		Secondary	Agriculture	0.82	2.15	1.53	3.14	1.17	2.64
			Industry	1.13	2.46	1.89	2.89	1.51	2.67
			Service	1.02	2.21	2.22	3.44	1.62	2.82
		SSC and HSC	Agriculture	1.14	2.10	1.39	2.41	1.26	2.25
			Industry	0.90	2.00	0.98	2.99	0.94	2.50
			Service	1.02	2.13	1.21	3.42	1.11	2.77
		Graduate	Agriculture	0.66	2.17	0.70	2.49	0.68	2.33
			Industry	1.02	2.29	0.96	2.96	0.99	2.62
			Service	0.95	2.14	1.22	2.32	1.08	2.23
	All	No Education	Agriculture	1.98	3.48	1.36	3.46	1.67	3.47
			Industry	1.09	2.28	1.03	2.64	1.06	2.46
			Service	0.98	2.66	0.80	3.07	0.89	2.87
		Primary	Agriculture	2.20	4.14	1.70	3.84	1.95	3.99
			Industry	0.92	3.57	1.34	3.21	1.13	3.39
			Service	1.04	3.13	0.86	2.99	0.95	3.06
		Secondary	Agriculture	1.72	3.41	1.80	4.23	1.76	3.82
			Industry	1.41	2.62	1.23	2.93	1.32	2.78
			Service	0.86	2.55	1.31	2.72	1.08	2.64
		SSC and HSC	Agriculture	1.79	3.75	2.05	3.20	1.92	3.47
			Industry	1.16	2.52	1.33	3.51	1.24	3.02
			Service	1.31	2.64	1.00	2.82	1.15	2.73
		Graduate	Agriculture	0.78	2.36	1.02	2.77	0.90	2.57
			Industry	1.04	2.88	1.31	3.21	1.17	3.05
			Service	1.07	3.02	1.03	2.69	1.05	2.86

Annex B: Hours Spent in Unpaid Domestic Work by Unemployed Population

Status	Age	Education	Urban		Rural		Total	
			Male	**Female**	**Male**	**Female**	**Male**	**Female**
Unemployed	15-29	No Education	1.72	7.45	1.97	7.16	1.85	7.31
		Primary	1.98	6.64	2.63	7.43	2.31	7.03
		Secondary	0.93	5.43	0.81	6.87	0.87	6.15
		SSC and HSC	1.10	3.98	1.00	4.03	1.05	4.00
		Graduate	1.20	6.34	1.44	6.77	1.32	6.55
	30-44	No Education	2.73	8.02	1.87	7.26	2.30	7.64
		Primary	3.82	7.72	3.83	7.55	3.82	7.64
		Secondary	2.96	7.59	1.46	7.41	2.21	7.50
		SSC and HSC	2.01	7.82	2.18	7.34	2.09	7.58
		Graduate	1.96	6.09	1.97	6.78	1.97	6.43
	45-59	No Education	1.75	6.25	1.68	6.72	1.72	6.48
		Primary	1.50	6.23	1.00	5.47	1.25	5.85
		Secondary	0.64	6.28	0.84	6.53	0.74	6.41
		SSC and HSC	1.78	7.49	1.78	6.24	1.78	6.87
		Graduate	1.21	6.88	1.30	7.01	1.25	6.94
	60+	No Education	0.71	3.49	1.28	3.74	0.99	3.61
		Primary	1.16	3.01	1.02	3.54	1.09	3.28
		Secondary	0.98	4.38	1.25	4.36	1.12	4.37
		SSC and HSC	1.10	3.19	1.14	4.60	1.12	3.90
		Graduate	0.94	3.42	1.00	4.10	0.97	3.76
	All	No Education	1.73	6.30	1.70	6.22	1.71	6.26
		Primary	2.12	5.90	2.12	6.00	2.12	5.95
		Secondary	1.38	5.92	1.09	6.29	1.23	6.11
		SSC and HSC	1.50	5.62	1.52	5.55	1.51	5.59
		Graduate	1.32	5.68	1.43	6.16	1.38	5.92

Annex C: Hours Spent in Unpaid Domestic Work by Population of Not in Labour Force

Status	Age	Education	Urban		Rural		Total	
			Male	**Female**	**Male**	**Female**	**Male**	**Female**
Not in LF	15-29	No Education	1.37	7.25	1.31	7.59	1.34	7.42
		Primary	1.62	7.47	3.60	8.52	2.61	7.99
		Secondary	1.97	7.20	1.08	9.34	1.53	8.27
		SSC and HSC	1.37	7.25	1.88	8.09	1.63	7.67
		Graduate	1.21	6.87	1.43	7.89	1.32	7.38
	30-44	No Education	3.02	7.29	1.96	6.75	2.49	7.02
		Primary	3.23	7.13	4.48	7.91	3.85	7.52
		Secondary	3.08	8.64	1.31	7.85	2.20	8.24
		SSC and HSC	1.35	7.19	1.88	6.91	1.62	7.05
		Graduate	1.23	5.88	1.14	6.80	1.18	6.34
	45-59	No Education	1.90	5.56	1.55	6.37	1.72	5.96
		Primary	1.01	5.68	1.00	5.91	1.01	5.79
		Secondary	1.30	5.90	2.54	6.63	1.92	6.27
		SSC and HSC	1.80	7.27	1.69	7.64	1.74	7.45
		Graduate	1.14	6.00	1.70	7.05	1.42	6.53
	60+	No Education	1.80	3.40	1.15	4.74	1.47	4.07
		Primary	1.21	3.32	0.91	4.31	1.06	3.82
		Secondary	1.06	4.38	1.19	4.06	1.13	4.22
		SSC and HSC	1.24	4.13	1.36	4.58	1.30	4.36
		Graduate	1.02	3.98	0.98	4.42	1.00	4.20
	All	No Education	2.03	5.88	1.49	6.36	1.76	6.12
		Primary	1.77	5.90	2.50	6.66	2.13	6.28
		Secondary	1.85	6.53	1.53	6.97	1.69	6.75
		SSC and HSC	1.44	6.46	1.70	6.80	1.57	6.63
		Graduate	1.15	5.68	1.31	6.54	1.23	6.11

Annex D: Values of Unpaid Domestic Work for Employed Population

Status	Age	Education	Sector	Urban		Rural		Total	
				Male	**Female**	**Male**	**Female**	**Male**	**Female**
Employed	15-29	No Education	Agriculture	0.01	0.01	0.07	0.09	0.07	0.08
			Industry	0.02	0.01	0.05	0.02	0.07	0.05
			Service	0.02	0.02	0.03	0.02	0.06	0.05
		Primary	Agriculture	0.02	0.03	0.16	0.22	0.18	0.25
			Industry	0.07	0.10	0.12	0.07	0.21	0.23
			Service	0.07	0.03	0.10	0.03	0.19	0.08
		Secondary	Agriculture	0.01	0.05	0.11	0.73	0.11	0.62
			Industry	0.08	0.09	0.07	0.05	0.17	0.18
			Service	0.05	0.07	0.14	0.08	0.20	0.18
		SSC and HSC	Agriculture	0.01	0.01	0.09	0.09	0.07	0.10
			Industry	0.03	0.03	0.07	0.03	0.10	0.09
			Service	0.05	0.08	0.09	0.07	0.15	0.19
		Graduate	Agriculture	0.00	0.00	0.00	0.00	0.00	0.01
			Industry	0.01	0.00	0.01	0.00	0.02	0.01
			Service	0.02	0.03	0.01	0.02	0.03	0.08

	30-44	**No Education**	**Agriculture**	**0.04**	**0.06**	**0.34**	**0.90**	**0.34**	**0.80**
			Industry	0.03	0.03	0.12	0.06	0.14	0.11
			Service	0.06	0.08	0.13	0.05	0.19	0.17
		Primary	Agriculture	0.03	0.08	0.33	0.64	0.29	0.65
			Industry	0.05	0.07	0.08	0.06	0.14	0.17
			Service	0.12	0.06	0.15	0.06	0.29	0.16
		Secondary	Agriculture	0.02	0.05	0.20	0.42	0.19	0.41
			Industry	0.08	0.02	0.07	0.04	0.17	0.07
			Service	0.09	0.03	0.13	0.07	0.24	0.12
		SSC and HSC	Agriculture	0.01	0.03	0.10	0.09	0.09	0.13
			Industry	0.03	0.00	0.03	0.01	0.08	0.02
			Service	0.13	0.05	0.11	0.05	0.28	0.14
		Graduate	Agriculture	0.00	0.00	0.01	0.00	0.01	0.00
			Industry	0.01	0.00	0.01	0.00	0.03	0.01
			Service	0.11	0.08	0.07	0.03	0.23	0.15
	45-59	No Education	Agriculture	0.05	0.07	0.54	0.64	0.48	0.66
			Industry	0.02	0.02	0.04	0.05	0.07	0.07
			Service	0.06	0.04	0.12	0.05	0.18	0.11
		Primary	Agriculture	0.02	0.02	0.22	0.23	0.19	0.22
			Industry	0.01	0.01	0.02	0.01	0.03	0.02
			Service	0.06	0.02	0.08	0.02	0.15	0.04
		Secondary	Agriculture	0.02	0.01	0.17	0.09	0.14	0.09
			Industry	0.02	0.00	0.02	0.01	0.04	0.01
			Service	0.04	0.01	0.05	0.01	0.10	0.02
		SSC and HSC	Agriculture	0.01	0.01	0.06	0.02	0.06	0.03
			Industry	0.02	0.00	0.02	0.00	0.05	0.01
			Service	0.14	0.01	0.05	0.01	0.22	0.03
		Graduate	Agriculture	0.00	0.00	0.00	0.00	0.00	0.00
			Industry	0.01	0.00	0.00	0.00	0.02	0.00
			Service	0.05	0.02	0.03	0.01	0.11	0.03
	60+	No Education	Agriculture	0.03	0.01	0.17	0.12	0.24	0.12
			Industry	0.01	0.00	0.00	0.01	0.02	0.01
			Service	0.02	0.01	0.04	0.02	0.06	0.04
		Primary	Agriculture	0.02	0.00	0.09	0.02	0.11	0.02
			Industry	0.00	0.00	0.02	0.00	0.02	0.00
			Service	0.01	0.00	0.02	0.00	0.03	0.01
		Secondary	Agriculture	0.00	0.00	0.05	0.01	0.03	0.01
			Industry	0.00	0.00	0.01	0.00	0.01	0.00
			Service	0.01	0.00	0.04	0.00	0.05	0.00
		SSC and HSC	Agriculture	0.00	0.00	0.03	0.00	0.03	0.00
			Industry	0.00	0.00	0.00	0.00	0.01	0.00
			Service	0.01	0.00	0.02	0.00	0.04	0.00
		Graduate	Agriculture	0.00	0.00	0.00	0.00	0.00	0.00
			Industry	0.00	0.00	0.00	0.00	0.00	0.01
			Service	0.01	0.00	0.01	0.00	0.02	0.00

Annex E: Values of Unpaid Domestic Work for Unemployed Population

Status	Age	Education	Urban		Rural		Total	
			Male	**Female**	**Male**	**Female**	**Male**	**Female**
Unemployed	15-29	No Education	0.00	0.01	0.01	0.06	0.01	0.07
		Primary	0.01	0.04	0.04	0.11	0.04	0.15
		Secondary	0.01	0.07	0.01	0.19	0.02	0.25
		SSC and HSC	0.02	0.10	0.03	0.14	0.05	0.24
		Graduate	0.02	0.12	0.02	0.10	0.04	0.22
	30-44	No Education	0.00	0.01	0.01	0.07	0.01	0.09
		Primary	0.00	0.01	0.01	0.05	0.02	0.06
		Secondary	0.01	0.02	0.01	0.04	0.01	0.06
		SSC and HSC	0.01	0.02	0.01	0.03	0.01	0.05
		Graduate	0.01	0.02	0.00	0.01	0.01	0.04
	45-59	No Education	0.00	0.00	0.01	0.02	0.01	0.02
		Primary	0.00	0.00	0.00	0.01	0.00	0.01
		Secondary	0.00	0.00	0.00	0.00	0.00	0.00
		SSC and HSC	0.00	0.00	0.00	0.00	0.00	0.00
		Graduate	0.00	0.00	0.00	0.00	0.00	0.00
	60+	No Education	0.00	0.00	0.00	0.00	0.00	0.00
		Primary	0.00	0.00	0.00	0.00	0.00	0.00
		Secondary	0.00	0.00	0.00	0.00	0.00	0.00
		SSC and HSC	0.00	0.00	0.00	0.00	0.00	0.00
		Graduate	0.00	0.00	0.00	0.00	0.00	0.00

Annex F: Values of Unpaid Domestic Work for Population of Not in Labour Force

Status	Age	Education	Urban		Rural		Total	
			Male	**Female**	**Male**	**Female**	**Male**	**Female**
Not in LF	15-29	No Education	0.01	0.23	0.03	0.75	0.04	0.98
		Primary	0.02	0.62	0.12	1.85	0.10	2.46
		Secondary	0.17	1.62	0.25	4.90	0.45	6.47
		SSC and HSC	0.21	2.00	0.53	3.17	0.66	5.25
		Graduate	0.01	0.18	0.01	0.11	0.02	0.30
	30-44	No Education	0.01	0.61	0.03	1.54	0.04	2.30
		Primary	0.01	0.60	0.03	1.57	0.04	2.16
		Secondary	0.01	0.92	0.01	1.35	0.02	2.37
		SSC and HSC	0.01	0.81	0.01	0.58	0.01	1.42
		Graduate	0.00	0.21	0.00	0.05	0.00	0.27
	45-59	No Education	0.01	0.59	0.04	1.99	0.06	2.58
		Primary	0.00	0.34	0.01	0.77	0.01	1.13
		Secondary	0.01	0.32	0.03	0.42	0.03	0.75
		SSC and HSC	0.01	0.34	0.01	0.17	0.02	0.52
		Graduate	0.00	0.09	0.00	0.01	0.00	0.10
	60+	No Education	0.07	0.28	0.21	1.93	0.28	1.87
		Primary	0.02	0.07	-0.12	0.23	0.00	0.29
		Secondary	0.01	0.06	0.02	0.07	0.03	0.14
		SSC and HSC	0.03	0.04	0.04	0.02	0.07	0.06
		Graduate	0.02	0.02	0.01	0.00	0.02	0.02

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