Valuation of Women's Unpaid and Non-Market Household and Care Work: Evidence-based on the Bangladesh TUS 2021

Binayak Sen, Director General, BIDS

Tanima Ahmed, Institute for Women's Policy Research (IWPR) and American University (AU)

Kazi Iqbal, Research Director, BIDS

Mohammad Yunus, Research Director, BIDS

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Introduction

- Performing ==unpaid non-market care work (variously named as *grihothasali kaj or ghorer kaj* in Bangla)== is a crucial dimension of social reproduction—the process of enabling individuals, families, and the society as a whole to continue thriving (Sen 1987). The "great convergence" between male and female economic participation (Goldin 2014) cannot happen without recognizing the instrumental role of unpaid household work for *enabling* paid work at the household or societal level. Without ==*ghorer kaj* (homestead work) it is not possible to sustain *bairer kaj* (outside work).==

- Despite its importance, unpaid care and domestic work is undervalued because it is performed outside market transactions, comprising a so-called "missing market." The literature terms it as "non-market work" (Sen 1987; Hamid 1989; Hamid 1994; Ahmad and Koh 2011; Hess, Ahmed, and Hayes 2020; Ahmed and Floro 2023). ==We operate based on this global literature in our present exercise.==

- Unpaid non-market household and care work is clearly "work," but there is lack of consensus as to how to define it.

- The approach that adopted here is one that is generally followed in defining both paid and unpaid care work. It relates to Margaret Reid's "third-person criterion," defining work as an activity that one could pay another person to perform (see, Sakuma 2013 on this aspect).

- According to the third-person criterion, many forms of unpaid care work, including childcare, are considered work if someone else (a third person) could, in principle, be hired to perform it on one's behalf.

- Another criterion is whether an activity creates a transferable benefit - according to both criteria, the time devoted to unpaid care qualifies as work.

Main Research Question

- **Main Research Question**: We attempt here only to value the *unpaid non-market care work* performed by women in rural and urban Bangladesh. **Care work is defined here as including unpaid labour engaged in domestic chores such as cooking, washing, cleaning, etc. as well as unpaid caregiving work including elderly and child care.**

- This value of unpaid care work is *expressed in terms of GDP* just to give it a statistical perspective that is easily understandable.

Issues to consider:

- We are <u>not</u> measuring women's total contribution to GDP here *through both market and non-market work*.

- We are <u>not</u> measuring women's contribution to GDP here via *unpaid productive work either.* The latter is already being captured through the SNA system adopted and implemented by BBS in Bangladesh [for instance, women's work for the household's own final use (consumption) in homestead gardening, livestock, fisheries, and forestry sectors].

How to Value Unpaid Household and Care Work and Its Limitations

Output-based approach asks what it would cost to purchase an unpaid care service in the market (for instance, an hour of center-provided day care or cooked food). The price of equivalent market substitutes is thus assigned to nonmarket goods and services. However, it is **difficult** to:

- **Define the output of unpaid care work**, such as caring for children.
- **Find appropriate data** that show market prices for outputs of the **equivalent quality and quantity** of the goods and services created by unpaid care work.

Input-based approach focuses on the measurement and valuation of labor inputs into unpaid care work. Following the third-person criterion, it values the time estimates against market wage rates for workers who perform similar activities in the labor market. However,
- In principle, **other inputs such as capital and raw materials should also be measured**. But in any case, labor is the most important input.

The two most common methods used to construct market wage rates build on estimates of the opportunity cost or replacement cost.
Opportunity cost is the per hour value of time that a person could have spent in an alternative activity if she or he had not been doing unpaid care work. However,
- While the opportunity cost may reasonably refer to forgone earnings, but some **calculation might be required for those who have no such jobs**.
- It **does not** necessarily **capture the benefits of unpaid work to others**.

Replacement cost, by contrast, uses the wage that would have been paid to a person hired to perform the same tasks (i.e., the third-party criterion).
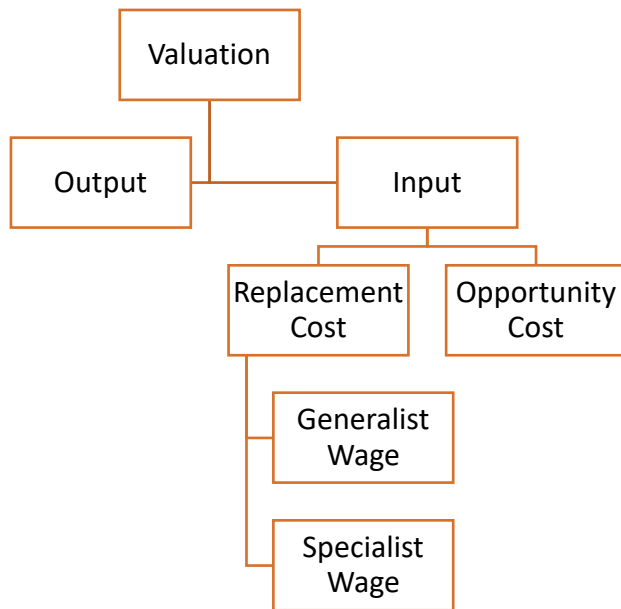
Since there is no consensus on best-fit wages, a wide range of wages can run between a lower-bound estimate and an upper-bound estimate.
Generalist wage approach assigns one wage to all activities, irrespective of the nature of the work. The *generalist* measure, at one end, considers the low-paid workers in the market, including domestic workers.

Specialist wage approach, however, assigns different wages to different activities based on the actual wage rate for each job. The specialist measure, at the other end, considers relatively high-wage workers, such as nurses and teachers, who spend their time in the relevant specialized activities.
However, **difficulties** with both the generalist and the specialist wage approaches is:
- **Fails to consider the amount of time that individuals spend on unpaid care work**. For instance, an inexperienced individual would spend far more time on tasks like painting or plumbing than would an experienced specialist. Therefore, it is possible that the use of the specialist wage approach could lead to overstating the value of unpaid care work.
- **Fails to do quality control**. Is a cook's wage suitable for a mother's labor?

Valuation
Output — Input
Replacement Cost — Opportunity Cost
Generalist Wage
Specialist Wage

Source: Suh et al. 2020; United Nations 2017; Ahmad and Koh 2011)

Methodology: Valuation of Unpaid Work

Taking into account the issues regarding measurement and the availability of data, we adopt the **input-based, replacement cost approach** for valuing unpaid care work performed in Bangladesh, **using the generalist wages**.

Source: The formula is adapted from Ahmad and Koh (2011) to reflect the variation in rural and urban unpaid caregiving work by sex.

Annual monetary value of unpaid care work
= Average hours spend on unpaid care work annually by each individual × hourly replacement wage × Population of age 15 years and older.

- In this exercise, the formula is adapted to reflect the variation in rural and urban unpaid caregiving work and the variation in wages by female and male.

- BDT 300 per day (i.e., BDT 37.5 per hour) and BDT 350 per day (i.e., BDT 43.75 per hour) replacement wages are used in valuing women's unpaid work in the rural and urban regions, respectively. BDT 450 per day (i.e., BDT 56.25 per hour) and BDT 350 per day (i.e., BDT 62.5 per hour) replacement wages are used in valuing men's unpaid work in the rural and urban regions, respectively.

- Additionally, the total population used in the exercise is taken from BBS (2022). In Bangladesh, the proportions of the female and male population are 50.5% vis-à-vis 49.5%, the rural and urban population is 69% vis-à-vis 31%, and the population 15 years and above constitutes 71.4% of the total population

Bangladesh's Population in 2021[a]	169400000		(169.4 million)
% of Population 15 years and older in Bangladesh (73.55%) in 2021[b]			1.25E+08
% of Rural population (69%)[c]			85969653
% of Urban population (31%)[c]			38624047
			1.25E+08
Population Size	**Women (50.4%)[d]**	**Men (49.6%)[d]**	**Total**
Rural	4.33E+07	4.26E+07	8.60E+07
Urban	1.95E+07	1.92E+07	3.86E+07
			1.25E+08

Note: [a] Data Commons: https://datacommons.org/place/country/BGD/?utm_medium=explore&mprop=count&popt=Person&hl=en
[b] Statistica: https://www.statista.com/statistics/438190/age-structure-in-bangladesh/
[c] World Bank: BBS
[d] Trading Economics: https://tradingeconomics.com/bangladesh/population-female-percent-of-total-wb-data.html

Methodology: Valuation of Unpaid Work...

- There are three sectors of *unpaid work*: (a) Unpaid domestic services for household and family members; (b) Unpaid caregiving services for household and family members; and (c) Unpaid work productive work for own consumption.

- As mentioned earlier, in this exercise, we focus on the first two categories relating to the definition of "*grihothasali kaj*", as the third category is likely to be captured in GDP accounting already as part of the SNA classification.

- We adopt the *replacement method* for valuing the unpaid work.

- In the BIDS study, we adopted the *generalist wage* approach (Taka 450 and 300 per day for men and women, respectively, in rural areas; and Taka 500 and 350 per day correspondingly for urban areas).

Activities Under Unpaid Non-Market Household and Caregiving Work

Division	Activity title
	Unpaid domestic services for household and family members
31	Food and meals management and preparation
32	Cleaning and maintaining of own dwelling and surroundings
33	Do-it-yourself decoration, maintenance and repair
34	Care and maintenance of textiles and footwear
35	Household management for own final use
36	Pet care
37	Shopping for own household and family members
38	Travelling, 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
	Unpaid caregiving services for household and family members
41	Childcare and instruction
42	Care for dependent adults
43	Help to non-dependent adult household and family members
44	Travelling and accompanying goods or persons related to unpaid caregiving services for household and family members
49	Other activities related to unpaid caregiving services for household and family members

Comparing Our Estimate to BBS Report on the TUS 2021

	Own calculation using BBS weight (in hours per day using BBS weight)								
	TOTAL			RURAL			URBAN		
	Women	**Men**	**All**	**Women**	**Men**	**All**	**Women**	**Men**	**All**
Employment and related activities (market work)	1.2	6.1	3.3	1.1	5.9	3.2	1.5	6.6	3.7
Production of goods for own final use	0.8	0.6	0.7	1.0	0.7	0.9	0.3	0.1	0.2
Unpaid domestic services for household and family members	4.6	0.6	2.9	4.7	0.6	2.9	4.5	0.6	2.8
Unpaid caregiving services for household and family members	1.2	0.2	0.8	1.2	0.2	0.8	1.3	0.2	0.8
Unpaid volunteer trainee and other unpaid activities	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Learning	0.4	0.4	0.4	0.3	0.4	0.3	0.4	0.5	0.5
Socializing and communication, community participation and religious practice	2.1	2.2	2.2	2.2	2.3	2.2	2.0	2.0	2.0
Culture, leisure, mass media and sports practices	2.7	2.6	2.6	2.5	2.6	2.5	3.0	2.6	2.8
Self-care and maintenance	10.9	11.3	11.1	10.9	11.3	11.1	10.9	11.3	11.1
Total	**24**	**24**	**24**	**24**	**24**	**24**	**24**	**24**	**24**

Note: [a] The statistics for BBS is collected from Time Use Survey Preliminary Report 2021

Estimate: Valuation of Unpaid Non-Market Household and Care Work

Activities	Full-Cost					
	Value of Unpaid Domestic and Caregiving Services in population (in billion BDT)[a]			Value of Unpaid Domestic and Caregiving Services in population (in billion USD) 1 USD = 86.30 BDT (official exchange rate in 2021-22) [a]		
	Women	Men	All	Women	Men	All
Unpaid domestic services for household and family members	4171	770	4941	48	9	57
Unpaid caregiving services for household and family members	1136	248	1383	13	3	16
Total	**5307**	**1018**	**6325**	**61**	**12**	**73**
With estimate % of total GDP USD 416.3 billion in 2021[a]				**14.8%**	**2.8%**	**17.6%**

Note: [a.] Gross Domestic Product (GDP) in current US$416.3 billion and the official exchange rates are taken from the World Development Indicators.

Valuation of Unpaid HH and Care Work in Other Countries

Country	Value of unpaid HH and care work % of GDP
Bangladesh (2021)	14.8%
Sri Lanka	15%
India (2019)[a]	14%*

Note:
[a.] India statistics are taken from https://www.livemint.com/news/india/the-invisible-labour-women-s-unpaid-domestic-work-totals-1-640-crore-hours-daily-worldwide-11677829250038.html reporting as per State Bank of India's (SBI) research Ecowrap on women's unpaid contribution in the economy.
*India number is only for working-age women aged 18-60 years. It explains why the estimate is lower than Bangladesh (using the 15 and above criterion). We have therefore adjusted the Indian figure to make it comparable to Bangladesh's definition of age-structure in addition to controlling for the differences in the generalized wage rate.

Simulation: Valuation of Unpaid Work

Activities	75% of Wage Used in Full-Cost Estimate			50% of Wage Used in Full-Cost Estimate		
	Value of Unpaid Domestic and Caregiving Services in population (in billion USD) 1 USD = 86.30 BDT (official exchange rate in 2021-22)			Value of Unpaid Domestic and Caregiving Services in population (in billion USD) 1 USD = 86.30 BDT (official exchange rate in 2021-22)a		
	Women	**Men**	**All**	**Women**	**Men**	**All**
Unpaid domestic services for household and family members	36	7	43	24	4	29
Unpaid caregiving services for household and family members	10	2	12	7	1	8
Total	**46**	**9**	**55**	**31**	**6**	**37**
With estimate % of total GDP USD 416.3 billion in 2021b	**11.1%**	**2.1%**	**13.2%**	**7.4%**	**1.4%**	**8.8%**

Note: a. Gross Domestic Product (GDP) in current US$416.3 billion and the official exchange rates are taken from the World Development Indicators.

Issues to be Considered for Future Valuation

- The time-use data is only collected for only 1 day in a week and only for 1 selected member of the household to reflect the male and female members without consideration of the variation in time-use by weekdays and weekends, and also seasonality.

- There is no time use data collected for individuals aged below 15 years particularly to reflect the children's contribution to unpaid household chores and caregiving work.

- There is no variable available on the willingness of individuals to hire a replacement for their unpaid household and caregiving work, and if willing to replace, how much will they be willing to pay for such replacement of services.

- There is no data available on specialist wages, specifically for professions such as domestic workers, chef, laundryman, and also caregiving personnel's, etc.

- We have deliberately left out the unpaid work involving economic activities in order to avoid double counting in the national account system. However, *there may be some production activities which are still not reflected in the present accounting system where unpaid work is involved. This is left for further work*.

- We have also deliberately left out the *unpaid volunteer work* in this calculation. Although volunteer work falls under the "unpaid care work" category based on the operational criteria, but volunteering at some level presumes that the actor has some free time, which is also an issue (Suh et al. 2020).

Conclusion

- Women make a significant contribution to social reproduction and economic development through unpaid non-market household and caregiving work.

- **This value—in our exercise—is equivalent to 14.8% of GDP, which may be compared to India's 14% and Sri Lanka's 15%.**

- Women's contribution through unpaid non-market household and caregiving work is 3 times higher than their male counterparts.

- This study has policy implications in terms of highlighting systematic recognition of unpaid care work and also, investing in care services to reduce and redistribute the unpaid care responsibility of women. The latter can be manifold:

  (a) Unpaid caregivers should be prioritized in accessing public health, nutrition, and public social protection programs;

  (b) Better infrastructure and caregiving market and non-market institutions should be in place for unpaid care work, including childcare and elderly care, to reduce women's unpaid care responsibility and provide them with an opportunity for their economic participation;

  (c) Investment in technology can come in handy - improved technology for cooking and cleaning should be encouraged at the household level to raise productivity in care work; and

  (d) Male contribution to the household unpaid care work must be societally encouraged. This will help to ensure the even spread of the care work across gender, ensuring gender equality in unpaid work.

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