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# THE CARE ECONOMY AND WOMEN'S LABOUR FORCE PARTICIPATION IN INDIA: MEASURING THE ECONOMIC COST OF UNPAID DOMESTIC WORK

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### Abstract

Women's unpaid domestic and care work contributes to household and national economies in India, but is undercounted in National accounts. This paper explores the relationship between women's unpaid care burden and their limited labour force participation, and provides a clear, transparent and reproducible estimate of the economic value of this work. The study employs a descriptive and analytical secondary data design and relies on the findings from the Time Use Survey (2019 and 2024), the Periodic Labour Force Survey (PLFS) reports, the official wage notifications, and published valuation studies. The study employs a replacement-cost approach, corresponding to one consistent set of official minimum wages, to yield per-participant and illustrative national-aggregate estimates, and to disaggregate the results of women-only analyses from the results obtained from a combined-gender analysis published elsewhere, which is corrected for this prior to commentary. The results validate a sustained, albeit small, gender disparity in unpaid domestic and care time over the period 2019-2024, even as women are increasingly entering the labour market, a share of which is found in unpaid family work and in the rural sector, in agriculture-based work. There are several different ways of measuring women's unpaid work, with the estimates for 2022-23 ranging from around 14.5 to 21.5 per cent of GDP, based on different measures, and 15 to 17 per cent of GDP for 2019-20, based on a separate estimate from the government, though with a different year and wage benchmark. The value of the paper is in the ability to read the evidence from the 2024 Time Use Survey data together with labour-force data in a coherent value framework and, finally, the recommendations for policy in the context of the ILO's 5R framework.

**Keywords:** Care economy; unpaid domestic work; unpaid care work; women's labour force participation; time-use survey; replacement-cost valuation; gender inequality; India.

### Introduction

The care economy is the economy of all activities, both paid and unpaid, that sustain human life and wellbeing, including cooking, cleaning, fetching water and fuel, and the direct care of children, the elderly, the sick and persons with disabilities. The majority of this work is done without any

payment in India, largely by women and girls, at home. Paid care work, in contrast, is traded in the market, and at least some of this work is included in the employment statistics. While the System of National Accounts (SNA) recognizes own-account production of goods since its 1993 revision, it has not captured most unpaid domestic services, unpaid domestic and care work is not: it has no wage, no employer and no place in the production boundary conventionally used to compile GDP (Sahoo et al., 2024).

This work is highly gender biased in India. Official Time Use Survey (TUS) data reveal that women perform unpaid domestic services and care more than several times a day compared to men, and this trend is observed rural and urban and across education and employment groups (Sahu 2024, MoSPI 2025). For a long time, feminist economists have maintained that unpaid care is a hidden subsidy for paid production, reproducing the labour force for free for employers and the state, and restricting the time that women can spend in education and paid employment (Folbre, 1994; Elson, 2017). Despite having shown a significant increase in recent rounds of the Periodic Labour Force Survey (PLFS), India's FLFPR is still very low compared to its male counterpart, which is often described as the 'missing women workers puzzle' (Chatterjee et al., 2018; Afridi et al., 2018; Fletcher et al., 2017). Unpaid work is not captured in conventional GDP, which only accounts for market transactions, and so is not reflected in the amount of public investment devoted to activities that are not captured statistically (Elson, 2017). It is, therefore, necessary to measure the unrecognised economic value of unpaid domestic labour to inform policy in the labour market and social protection that accounts for women's real constraints on labour supply.

This paper is driven by particular gap in the Indian evidence base. Although a great deal of gender-disaggregated research was produced in the 2019 Time Use Survey (MoSPI, 2020), the second round of the survey (2024) has been analysed primarily in short commentary and has not yet been systematically analysed with labour-force data or a systematic, transparent valuation exercise. This paper makes that integration, by combining evidence from the officially released TUS 2019 and 2024, trends from PLFS for 2017-18 to 2023-24, and a replacement-cost valuation based on a single official wage schedule in order to correct for earlier commentary that mixed women-only and combined-gender figures.

The conceptual framework, thematic literature review and research gap, objectives and questions are presented in the remainder of the paper. In the methodology section, the design and valuation of the secondary data procedure are explained. The results section outlines the gender gap in unpaid work, trends in the labour force, the estimated economic value of the unpaid work of household and care workers, and its labour-market implications, followed by policy recommendations organized around the ILO's 5R approach and a conclusion.

### 1.1 Conceptual and Theoretical Framework

The analysis is informed by feminist economics and social reproduction theory, which see the domestic work of keeping households together and reproducing labour force as an economic requirement, not a function of production (Folbre, 1994; Waring, 1988). In contrast to the mainstream economic model of labour supply where work is pitted against leisure, feminist

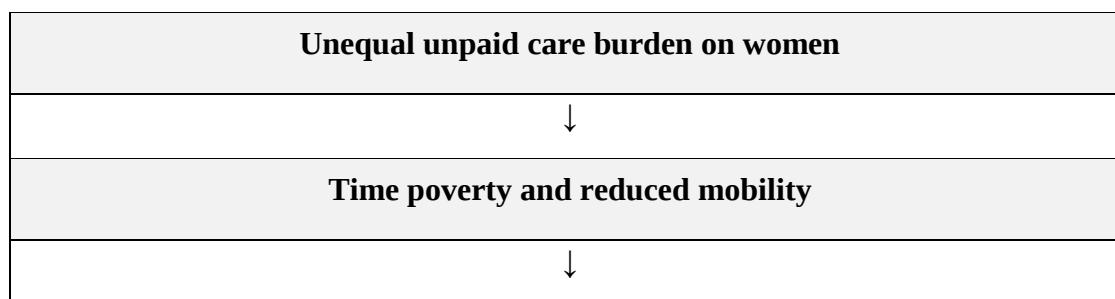
economics adds a third category of unpaid care work, which is also competing for the same 24 hours, and is unevenly allocated by gender. So, a choice to not join the paid workforce is often more about necessity, as the domestic workload can leave a woman with little time for leisure.

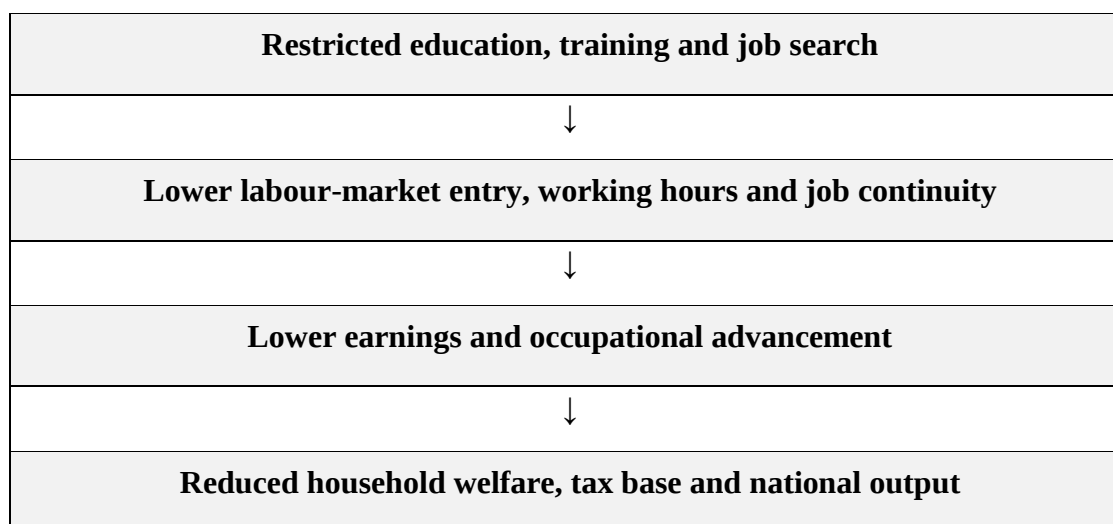
An alternative starting point, which is complementary, is provided by Gary Becker's (1965) theory of the allocation of time, which states that households allocate time between market work, non-market production and consumption to maximize their welfare given their time and income constraints. Together with social reproduction theory, this sheds light on why household prosperity is not necessarily associated with higher female labour supply in India: Social norms allocate women to domestic responsibility largely independent of the household's economic resources, with higher incomes potentially leading to a complete withdrawal from paid work (Afridi et al., 2024). There are two additional notions that guide the analysis. Time poverty refers to the situation in which, after taking into account paid and unpaid labour, a person has a constrained amount of free time, which is disproportionately experienced by women. Valuing unpaid work is a straightforward issue that has two commonly used methods: opportunity cost, which assigns a value to time by valuing it at the amount of foregone earnings at the market, and replacement cost, which assigns a value to time by valuing it at the market wage of a job that will do the same task. The present paper is based primarily on replacement cost, as defined in a single official wage schedule, and the opportunity cost is used comparatively, as is the estimate separately published for this purpose.

The paper follows the ILO's 5R Framework for Decent Care Work (adopted by ILO constituents in 2024; elaborated by Diane Elson in 2017) which builds on her original three-Rs formulation: recognise, reduce, redistribute, reward and represent. Finally, the paper builds on Diane Elson's original three-Rs formulation and on the Sustainable Development Goal target 5.4 which calls for recognition of unpaid care work, reduction of the time intensity of unpaid care work, redistribution of care work between women and men and between households and the state, reward for the work of paid care workers and representation of carers in policy making (United Nations, 2015; Elson, 2017; ILO, 2024).

Figure 1: Conceptual Pathway

Figure 1 summarises the pathway through which an unequal unpaid care burden is expected to translate into labour-market and economic outcomes; this pathway structures the results and discussion that follow.





**Figure 1.** Pathways linking unpaid care responsibilities with women's labour-force participation and economic outcomes. Source: Constructed by the author based on the conceptual framework developed in this section.

#### Review of Literature

The study of the gender gap in time use and women's economic participation in India can be categorised into four themes: scale of the gender gap in time use; connection unpaid work and labour force participation; monetary value of unpaid work; and public infrastructure/care services that intervene in these relationships.

Overall, research based on the 2019 TUS consistently indicates that Indian women spend multiple hours compared to men on unpaid domestic services and direct care activities—rural/urban divide, marital status, and level of education. For measurement, it is found that studies based on the 2019 TUS converge in the finding that Indian women spend several times more hours than men on unpaid domestic services and direct care (rural/urban divide, marital status, education level). The result of regression analyses also supports the hypothesis that gender is a statistically significant predictor of unpaid work time, once household composition, income and employment status are accounted for, reflecting a normative role assignment, and not just economic optimisation. There is variation in studies in terms of emphasis: some focus on caste and religious stratification in terms of intensity of unpaid work, while others emphasize the life-cycle dimension, that is, the gap is not as great or not closing among never-married young women.

Another strand relates unpaid work and labour force outcomes. By analysing PLFS and related data, it is found that with the increase in the education of women in India, the employment rate has not increased as it seems there is a U-shaped relationship between women's education and employment with rising employment during adolescence, declining during the adult years and rising again in late adulthood (Chatterjee et al., 2018; Afridi et al., 2018; Deshpande & Kabeer, 2019; Sanghi et al., 2015). Home productivity and social norms, and not only wages, are important

determinants of labour supply as heavier home responsibilities appear to increase the effective cost of paid labour at a given wage level (as evidenced in the time-use-based work, see Afridi et al., 2024), the paradox of paid and unpaid burdens also seen with the poverty status of women (see Singh & Pattanaik, 2019).

A third strand considers unpaid work as having economic value and published estimates in India differ in methods of calculation, in the wage used as a benchmark, in the year they are based on, and importantly, whether they are based on women alone, or both women and men. Sahoo et al. (2024) reported combined-gender estimates of 26 to 36 per cent of GDP using replacement cost and gross opportunity cost methods respectively for 2022-23, whereas the same study's women only estimates are quite lower, at around 14.5 per cent (gross opportunity cost) and 21.5 per cent (replacement cost). A government related brief in 2024 estimated that men and women contribute 15-17 per cent of GDP in unpaid domestic and care work in 2019-20 (Nikore, 2024). In some of the earlier commentaries, the figures have been lumped together for the combined gender and women-only. This paper does not do this, as it would exaggerate or deflate the contribution of women specifically.

The fourth theme is around care infrastructure. Comparative literature links childcare, eldercare, availability of water and clean cooking fuel with reduced time burden and increased labour force participation of women, as they perform the 'reduce' function of 5R framework of ILO (International Labour Organization, 2018; Mehta & Mehta, 2025). Research also indicates that paid care and domestic work in India is predominantly done by women from marginalised groups, is largely unorganised, and provides very little social protection, thus mirroring many vulnerabilities of unpaid care and domestic work (Mehta & Mehta, 2025). In all these strands, after the proper separation of the figures of valuation for women and men, the estimates for India are more consistent than had been thought in the earlier secondary commentaries. The contribution made here is the systematic integration of the latest round of PLFS with the 2024 Time Use Survey in one transparently documented and internally consistent valuation exercise, which is still underdeveloped.

## 2.1 Research Gap

The study of time-use patterns, of labour force trends and of the monetary value of unpaid work have been taken up by Indian scholarship separately, while a few recent studies have fused two of these aspects at a time. Rarer is a single analysis that reads the 2024 Time Use Survey and the 2023-24 PLFS Annual Report, and uses one official wage schedule – and, crucially, clearly separates out estimates of women-only activities from combined-gender estimates that have been published elsewhere. This paper does not explore the unexamined nature of unpaid care work or its valuation in India, but seeks to update, correctly attribute and link these strands of evidence with the most up-to-date available secondary evidence.

## **2.2 Research Objectives**

1. To examine the gender distribution of unpaid domestic and caregiving work in India using Time Use Survey evidence from 2019 and 2024.
2. To analyse recent trends in women's labour-force participation alongside corresponding changes in time use between 2017-18 and 2023-24.
3. To estimate the monetary value of women's unpaid domestic and care work through a transparent, reproducible replacement-cost valuation, at both the per-participant and illustrative national-aggregate level, read alongside published Indian estimates.
4. To identify policy measures capable of recognising, reducing and redistributing unpaid care responsibilities in the Indian context.

## **2.3 Research Questions**

1. How large is the gender gap in unpaid domestic and caregiving work in India, and has it narrowed between 2019 and 2024?
2. What do recent Periodic Labour Force Survey trends suggest about the nature, rather than merely the level, of the increase in women's labour-force participation?
3. What is a defensible, reproducible estimate of the economic value of women's unpaid domestic and care work in India, and how does it compare with independently published women-only and combined-gender estimates?
4. What policy measures, consistent with the ILO's 5R framework, could plausibly recognise, reduce and redistribute India's unpaid care burden?

## **3. Research Methodology**

This paper is descriptive and analytical in nature and uses secondary data. There have been no primary respondents, questionnaires or field surveys carried out and statistics are either published figures, or derived from published official or peer-reviewed secondary sources. The data sources include rounding of the MoSPI Time Use Survey for the years of 2019 and 2024, the PLFS Annual Reports for 2017-18 and 2023-24, the wage notification issued by the Chief Labour Commissioner (Central) on 1 October 2024, national accounts press releases from MoSPI, and valuation studies from the Economic and Political Weekly and from Indian institutions.

The population is the unit of analysis, and the age grouping is kept constant for each comparison, while disaggregating the population by sex. Due to different age bands, reference periods and classifications, figures reported for TUS 2019 and 2024 can be compared only in the age band they both have reported. These age bands are explained in the detailed tables and in the Key Highlights, where a 15-59 band is used for employment, domestic-service-time and caregiving indicators, while an all-persons-aged-six-and-above band is used in the detailed tables. They are not used together—they're both used here, and there are labels. The usual status LFPR and worker-population ratio figures of PLFS, age 15 and above, are not treated as equal and reported separately from TUS activity-participation rate as the former reflects the economic status of a person over a year while the latter is based on the diary of one day.

Unpaid domestic services, according to the TUS classification, are the routine household maintenance, cooking, cleaning, water and fuel collection activities done for the benefit of the household members without any payment. Unpaid caregiving is a term used to describe the person-to-person, direct care of children, elderly, the sick or individuals with a disability and is conceptually separated by the different valuation benchmarks of each. These definitions and sources are summarised in table 1.

The main method employed in the valuation exercise is the replacement cost: Annual value of a participating woman is average hours worked per day times 365 days times the hourly replacement wage. The three wage benchmarks are based on a single, consistent source – the order issued by Chief Labour Commissioner (Central) on revision of minimum wage rates for unskilled work in construction, sweeping, cleaning, house keeping and loading and unloading work with area wise rates per day of Rs. 526 (Area C), Rs. 655 (Area B) and Rs. The Indian Government, Chief Labour Commissioner [Central] 783 (2024) (Area A). Having unskilled rates in all three areas instead of a combination of an unskilled lower bound and a skilled-labour upper bound restricts the sensitivity range to genuine geographic wage variation within one job category. This illustrative national aggregate uses these benchmarks and the TUS 2024 participation rates and some assumed female population, making these population assumptions explicit and order of magnitude only. A detailed opportunity cost analysis, based on Sahoo et al., (2024), published estimate, is discussed comparatively as a robust opportunity cost analysis would need individual earnings data which is not available in these secondary sources.

There are two main limitations, arising from the source of the secondary data. The design does not allow for the determination of individual-level causal relationships between unpaid work and labour-market exit, as the data are cross-sectional; the paper makes associations and uses phrases like 'is associated with' or 'appears to reflect' except where a specific study's design warrants the use of causal terms. Wages are used in many ways to determine valuation estimates and cannot be added to measured GDP without double counting; the activities of simultaneous activities in time diaries may be included in both the domestic-services and the caregiving categories and are marked as such. The national-aggregate population estimates are not an official age-sex count of 2024, but rather estimates derived from individual population ratios, and are labeled as such.

**Table 1: Definitions, Indicators and Data Sources Used in the Study**

| Concept / Indicator        | Working Definition                                                                                                 | Primary Data Source                  |
|----------------------------|--------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| Unpaid domestic services   | Cooking, cleaning, fetching water/fuel, shopping and managing household affairs for household members, without pay | MoSPI Time Use Survey, 2019 and 2024 |
| Unpaid caregiving services | Direct, person-to-person care of children, the elderly, the sick or persons with disabilities within the household | MoSPI Time Use Survey, 2019 and 2024 |

| Concept / Indicator                    | Working Definition                                                                                                 | Primary Data Source                                                                                                             |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Labour Force Participation Rate (LFPR) | Percentage of the population aged 15 years and above that is employed or unemployed and seeking work, usual status | PLFS Annual Reports, MoSPI                                                                                                      |
| Worker Population Ratio (WPR)          | Percentage of the population aged 15 years and above that is employed, usual status                                | PLFS Annual Reports, MoSPI                                                                                                      |
| Time poverty                           | Insufficient discretionary time remaining after paid and unpaid work commitments are accounted for                 | Conceptual; International Labour Organization (2018)                                                                            |
| Replacement-cost value                 | Monetary value of unpaid work estimated using the wage of a market substitute performing comparable tasks          | Author's calculation using Government of India, Chief Labour Commissioner (2024) wage order; Sahoo et al. (2024); Nikore (2024) |

**Source:** Compiled by the author from MoSPI (2020, 2025), MoSPI PLFS Annual Reports, and International Labour Organization (2018).

#### 4. Results and Discussion

##### A. Gender Gap in Unpaid Domestic and Caregiving Work

Official, age-matched Time Use Survey evidence is summarised in Table 2. For the population aged 15-59, the employment-activity participation rate increased from 21.8 per cent in 2019 to 25.0 per cent in 2024, while the employment-activity participation rate for men went from 70.9 per cent in 2019 to 75.0 per cent in 2024 (MoSPI, 2025). A similar figure of 315 minutes for women, or for unpaid domestic services, was not mentioned in the official press note reviewed, but men were reported to be spending an average of 243 minutes each day in such services during the same period, a reduction of only a few minutes in comparison with 247 minutes in 2019, the press note attributes to a switch from unpaid to paid work. In total, 41 per cent of women aged 15-59 years were engaged in caregiving in 2024, while 21.4 per cent of men were doing so, on average 140 minutes per day for women and 74 minutes for men (MoSPI, 2025).

The same survey round indicates that at the broader all-persons level (age six and above), 81.5 per cent of women participate in unpaid domestic services, compared to 27.1 per cent of men, and 289 minutes compared to 88 minutes of participant-only time; and 34.0 per cent of women participate in caregiving, compared to 17.9 per cent of men, and 137 minutes compared to 75 minutes of participant-only time (MoSPI, 2025). Although both bands lead to the same conclusion, the gender

gap in unpaid work hasn't shrunk significantly despite a growing trend of participation in paid work, these age bands are not interchangeable and are reported separately.

**Table 2: Gender Differences in Participation and Time Spent on Employment, Unpaid Domestic Services and Unpaid Caregiving, TUS 2019 and 2024**

| Indicator                                                                     | Men 2019 | Men 2024 | Women 2019 | Women 2024 |
|-------------------------------------------------------------------------------|----------|----------|------------|------------|
| Employment activity - participation rate, age 15-59 (%)                       | 70.9     | 75.0     | 21.8       | 25.0       |
| Unpaid domestic services - avg. time per participant, age 15-59 (minutes/day) | n.a.     | n.a.     | 315        | 305        |
| Unpaid caregiving - participation rate, age 15-59 (%)                         | n.r.     | 21.4     | n.r.       | 41.0       |
| Unpaid caregiving - avg. time per participant, age 15-59 (minutes/day)        | n.r.     | 74       | n.r.       | 140        |
| Unpaid domestic services - participation rate, age 6+ (%)                     | n.r.     | 27.1     | n.r.       | 81.5       |
| Unpaid domestic services - avg. time per participant, age 6+ (minutes/day)    | n.r.     | 88       | n.r.       | 289        |
| Unpaid caregiving - participation rate, age 6+ (%)                            | n.r.     | 17.9     | n.r.       | 34.0       |
| Unpaid caregiving - avg. time per participant, age 6+ (minutes/day)           | n.r.     | 75       | n.r.       | 137        |

## B. Recent Trends in Women's Labour-Force Participation

Table 3 shows PLFS trends for persons aged 15 years and above, usual status. The FLFPR in 2017-18 was 23.3 per cent, which increased to 41.7 per cent in 2023-24, representing a significant improvement in the statistics (MoSPI 2024a). The worker-population ratio for women rose from 22.0 per cent in 2017-18 to 40.3 per cent in 2023-24. The increase in the headline trend is overwhelmingly rural as the LFPR among rural women almost doubled from 24.6 to 47.6 per cent, compared to a more modest rise among urban female LFPR, from 20.4 to 28.0 per cent (IWWAGE, 2025). The share of rural women workers in agriculture increased from 71.1 per cent in 2018-19 to 76.9 per cent in 2023-24, turning the traditional trend of increasing share of women workers in the paid economy from away from agriculture to towards agriculture.

Some of the growth is due to people becoming self-employed, including those who were helping to run a household enterprise without reporting it as a job, but the sources used do not make it possible to know what portion would have been due to definitional changes had they occurred. A substantial part of the growth is in self-employment, which may have partly been due to distress in the rural economy during the period, or to measurement effects from how subsidiary status is recorded from round to round. In any case, an LFPR measured using the recalled usual status does not necessarily correspond with the record of a single day from a time-use diary and neither does it provide evidence of secure or remunerative employment. The structure of the FLFPR increase is similar to many of the increases in FLFPR being unpaid or informally paid family labour, on top of an already large domestic workload, rather than transitioning into stable, well-paid jobs.

**Table 3: Trends in Women's Labour-Force Participation and Related Employment Indicators, 2017-18 to 2023-24**

| Indicator (persons aged 15+, usual status)      | 2017-18        | 2023-24 |
|-------------------------------------------------|----------------|---------|
| Female LFPR, all-India (%)                      | 23.3           | 41.7    |
| Male LFPR, all-India (%)                        | 75.8           | 78.8    |
| Female Worker Population Ratio, all-India (%)   | 22.0           | 40.3    |
| Female LFPR, rural (%)                          | 24.6           | 47.6    |
| Female LFPR, urban (%)                          | 20.4           | 28.0    |
| Share of rural women workers in agriculture (%) | 71.1 (2018-19) | 76.9    |

Source: MoSPI, *Periodic Labour Force Survey Annual Reports, 2017-18 and 2023-24* (MoSPI, 2019, 2024a); IWWAGE (2025).

### C. Estimated Economic Value of Unpaid Work

The valuation is shown in three panels in table 4. Panel A uses the replacement-cost approach to a representative woman. The average time spent on unpaid domestic services per day is about 305 minutes (5.083 hours) per day, which corresponds to the average of about 1855 hours in a year ( $305 \times 365 / 60$ ) for the participants only and not for the population as a whole. The daily wages of the Chief Labour Commissioner, if applied to the eight hour day, would give a lower estimate of about Rs. The central estimate of the numbers in the Area C is 1,21,990. An upper estimate of Rs. 151,910 (Area B) 1,81,640 (Area A) per woman per year, just for domestic services.

In Panel B, the same wage schedule is used with TUS 2024's all-person (age six and above) participation rates and participant-only time, and an approximate female population derived from three sources of official statistics: an all-persons population of approximately 1,440,000,000 (United Nations Population Fund, 2024); a sex ratio of 48.8 per cent females per 1,000 males (National Commission on Population, 2020); and an assumed 90 per cent share of persons aged six and above. This totals to an estimated female population aged 6 years and older of 633 million, rounded up. Domestic services involve 81.5 per cent of the population, and 289 minutes of participant time, resulting in about 516 million participants, with a national aggregate of Rs. 59.6

to 88.8 lakh crore (18.0 to 26.9 per cent of GDP). This approach to caregiving (34.0 per cent participation, 137 minutes, ~215 million participants) gives Rs. 11.8 to 17.5 lakh crore (3.6 to 5.3 per cent of GDP). It represents the upper bound estimates between 21.6 to 32.2 per cent of GDP as compared with India's provisional nominal GDP for 2024-25 of Rs. 330.68 lakh crore (MoSPI, 2025b).

This illustrative aggregate is at or higher than the upper bound of published estimates, perhaps more likely because the published estimates are generally based on average wages (not minimum wages) of casual and domestic workers, while minimum wages, used here for consistency, are generally higher than actual average wages of casual and domestic workers. In Panel C, this figure is compared to three published estimates – one for women, one for men and a combined-gender estimate – all from Sahoo et al. (2024), for 2022-23, and to the unpaid domestic and care work estimate by Nikore (2024) for women, for 2019-20. These vary according to the basis of year, wage benchmark, and scope (sex) and are shown separately and not as one figure.

The estimates should not be interpreted as GDP would increase by a similar amount if unpaid work were monetised and included in national income, as is made clear by Sahoo et al. (2024). Instead, the estimates bring into the light the extent of the economic contribution that is not recognised and advocate a satellite-account approach rather than a direct GDP inclusion.

**Table 4: Replacement-Cost Estimates of Women's Unpaid Domestic and Care Work**

**Panel A: Per-participant calculation, unpaid domestic services only (women aged 15-59)**

| Estimate | Wage Benchmark (CLC order, eff. 1 Oct. 2024) | Hourly Rate (Rs.) | Annual Value per Participant (Rs.) |
|----------|----------------------------------------------|-------------------|------------------------------------|
| Lower    | Unskilled, Area C (Rs. 526/day)              | 65.75             | ~1,21,990                          |
| Central  | Unskilled, Area B (Rs. 655/day)              | 81.875            | ~1,51,910                          |
| Upper    | Unskilled, Area A (Rs. 783/day)              | 97.875            | ~1,81,640                          |

**Formula:** Annual value = 1,855 hours (305 minutes/day x 365 days / 60) x hourly wage. All wage rates from Government of India, Chief Labour Commissioner (Central) (2024).

**Panel B: Illustrative national aggregate (author's calculation; order-of-magnitude only)**

| Component                                | Participants (approx.) | Annual Hours/Participant | Value Range (Rs. lakh crore) | % of GDP (2024-25) |
|------------------------------------------|------------------------|--------------------------|------------------------------|--------------------|
| Unpaid domestic services (women, age 6+) | ~516 million           | 1,758                    | 59.6 - 88.8                  | 18.0% - 26.9%      |
| Unpaid caregiving (women, age 6+)        | ~215 million           | 833                      | 11.8 - 17.5                  | 3.6% - 5.3%        |

| Component                                   | Participants (approx.) | Annual Hours/Participant | Value Range (Rs. lakh crore) | % of GDP (2024-25) |
|---------------------------------------------|------------------------|--------------------------|------------------------------|--------------------|
| Combined (gross sum; not overlap-adjusted)* | n.a.                   | n.a.                     | 71.4 - 106.3                 | 21.6% - 32.2%      |

#### Panel C: Independently published estimates, by scope

| Estimate            | Scope                  | Method                               | Reference Year | Value (% of GDP) |
|---------------------|------------------------|--------------------------------------|----------------|------------------|
| Sahoo et al. (2024) | Women only             | Gross opportunity cost               | 2022-23        | ~14.5%           |
| Sahoo et al. (2024) | Women only             | Replacement cost                     | 2022-23        | ~21.5%           |
| Sahoo et al. (2024) | Combined (men + women) | Both methods                         | 2022-23        | ~26% - 36%       |
| Nikore (2024)       | Women only             | Minimum wage / weighted-average wage | 2019-20        | 15% - 17%        |

**Source:** Panel A and B, author's calculation from MoSPI Time Use Survey 2024 (MoSPI, 2025), Government of India Chief Labour Commissioner (2024) wage order, and MoSPI (2025b) GDP estimate; population inputs from United Nations Population Fund (2024) and National Commission on Population (2020), clearly flagged as approximations. Panel C figures reproduced from their original sources with methodology summarised, not independently re-estimated by the author; the women-only Sahoo et al. figures could not be independently re-verified against the full paywalled article text and should be checked against the original before final submission.

#### D. Economic and Labour-Market Consequences

The near-stasis of domestic work coupled with an increasing, albeit sometimes precarious, participation rate carries a number of implications. The time commitments to paid work will be further limited by the fact that, for the majority, five hours of a day taken up with domestic tasks, plus caregiving, will leave no time for looking for and undertaking paid work. When women have paid employment, they tend to work at home, as seasonal or agricultural workers, and earn less than men and are less likely to have stable employment. Women who take breaks from their careers due to marriage and childbirth tend to earn less for their lifetime and not accumulate as many skills as men (Chatterjee et al., 2018). This occupational segregation is further exacerbated by women being concentrated on informal, low status, poorly protected occupations including in the paid care

sector (Mehta & Mehta, 2025). Thus, the typical employed woman is characterized by a double burden, with the findings in Table 2 suggesting that the increase in paid-activity participation rate has not been matched by a proportional drop in unpaid-activity participation, resulting at the aggregate level in a loss of potential output, tax revenues and productivity growth.

### **E. Interpretation**

The findings point to a view that unpaid care work is economically productive, sustaining not only the labour force, but also the household, despite not being included within the national accounts boundaries of production. The social and relational value of family care cannot be replaced by a price and is an argument for recognition and policy attention, not for family care to be wholly marketed. The valuation exercise can be understood as a 'policy-communication instrument' to make a contribution which is not recognised visible.

### **5. Recommendations**

Based on the above analysis and the ILO's 5R model, the following recommendations are made for India. The following is recommended for the recognition of the Time Use Survey to be conducted at shorter intervals and more frequently than every 5 years between 2019 and 2024, and MoSPI to establish a satellite account of household production to report unpaid work statistics in parallel with GDP.

Reduction requires more investment in affordable childcare and crèche facilities near workplaces and Anganwadi centres; better services for the elderly and disabled, given the ageing society in India; and ongoing enhancement of water, sanitation, clean cooking-fuel and public-transport infrastructure, which would all have a direct impact on reducing the time intensity of unpaid domestic work identified here.

Fathers' and parents' paid maternity, paternity, and parental leave should be enhanced and actively taken by fathers, with flexibility and protection of employment arrangements, gender-responsive budgeting, and communication to promote fathers' and parental domestic participation all contributing to this goal.

Paid domestic and care workers, who are mostly marginalised group workers, should be included under formal employment, minimum wage, social security and the principle of wage for work done; childcare needs of workers should be made mandatory and not just a paper exercise; and employment and skill development programmes for women in rural areas should be based on realistic time budgets. These are not automatically achieved from the data, but are designed to meet the identified gaps in time, infrastructure and recognition.

### **6. Conclusion**

In this paper, gender distribution of unpaid domestic and care work in India was explored, its connection with recent shifts in women's labour force participation was discussed and an internally consistent and transparent estimate of the economic value of the unpaid care and domestic work was obtained. The gender gap in unpaid domestic work actually increased slightly in the 2024 TUS compared with the 2019 TUS, even as the female labour force participation rate increased by a significant amount, with a large majority of this increase occurring within rural, agricultural and self-employed activities, reflective of many of these additional roles complementing, rather than

displacing, women's existing domestic workload. The replacement cost for women in this paper is higher than or on par with three independent estimates, ranging from approximately 14.5 per cent of GDP to 21.5 per cent of GDP for women (2022-23), and 15 to 17 per cent (2019-20) based on a separate government-related estimate, which should not be interpreted as a figure for women alone as this paper corrects. The results of this paper address the research questions by answering them: the gender gap is still large and persistent; the increase in participation is real, but not necessarily of the same quality; a defensible valuation of unpaid domestic work, based on any reasonable assumption of labor remuneration, shows that it accounts for a significant share of GDP; and coherent policy answers can be found in the ILO's 5R framework. The limitations stem from the use of secondary, cross-sectional data that can only provide an association rather than a causal relationship, and from the approximations which have to be made when estimating the size of the population nationwide. However, attaining this secure and productive participation requires pre-conditions such as care infrastructure, and statistical recognition of unpaid work, both of which are lacking in India.

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