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Why Do Fewer Women Work in India?

A Supply–Demand Perspective

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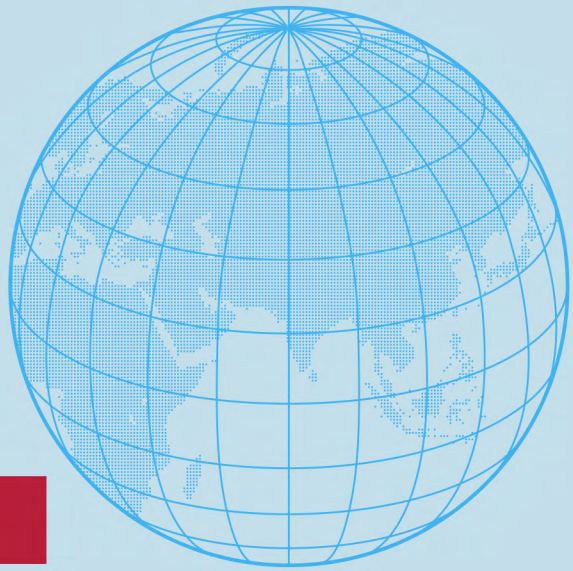

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Why Do Fewer Women Work in India?

A Supply–Demand Perspective

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Abbreviations

ADB	Asian Development Bank
ASER	Annual Status of Education Report
CWS	Current Weekly Status
DAY-NRLM	Deendayal Antyodaya Yojana-National Rural Livelihoods Mission
FTA	Free Trade Agreement
GDP	Gross Domestic Product
GSP	Generalised Scheme of Preferences
ILO	International Labour Organization
LFPR	Labour Force Participation Rate
MFN	Most Favoured Nation
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
NDP	Net Domestic Product
NSS	National Sample Survey
OECD	Organisation for Economic Co-operation and Development
PLFS	Periodic Labour Force Survey
PM MITRA	Pradhan Mantri Mega Integrated Textile Region and Apparel
PPP	Purchasing Power Parity
RMG	Ready-made Garment

Executive Summary

India's ambition to become a developed nation by 2047 hinges, among other things, on tapping its underutilised female labour force. At a per capita gross domestic product (GDP) of roughly USD 9,800[1] (World Bank Group, 2024), India's female labour force participation rate (LFPR) stands at 35% (International Labour Organization [ILO], n.d.)—well below the global average of 59% and also lower than peer economies such as Vietnam, Indonesia, the Philippines, and Bangladesh, where LFPR ranges from 42–68%[2,3] (The World Bank Group, 2024). The current low level represents a notable improvement from the 21% participation rate in 2017–2018. A higher female LFPR is beneficial not just for faster GDP growth, but for achieving better outcomes on health and education also. If India manages to achieve the average female LFPR for the developed world, it would add between USD 700 billion and USD 1.4 trillion in incremental GDP at current productivity levels.

This raises two fundamental questions: 1) What explains India's low female LFPR relative to its peers? and 2) Why did it decline from 2004–2005 to 2017–2018 and then rebound? Since female LFPR is about employed women and those looking for work, there ought to be demand- and supply-side factors that drive the female LFPR. In this paper, we decompose the female LFPR into a country's per capita GDP, the labour intensity of the overall economy (labour force/GDP), the female intensity (female labour force/total labour force), and the country's demographic composition.[4,5] A higher GDP/capita implies a higher demand for goods and services, and thus a higher demand for labour (and capital). Differences in labour intensity reflect the relative costs (and benefits)[6] of using labour vs capital in production processes, and hence is a function of both labour demand and supply. Finally, differences across countries in terms of female intensity are largely driven by societal norms.[7] We use this core decomposition framework to answer our two central questions.

What Explains India's Low Female LFPR Relative to its Peers?

The decomposition framework helps us understand the reason(s) responsible for India's low rate compared to its peers. We find that if India had Bangladesh's labour intensity, India's female LFPR would rise by 13% (keeping other components constant), whereas if India had Bangladesh's female intensity, it would increase India's female LFPR by 4%. Conversely, the Philippines' female intensity in India's context would increase India's female LFPR by 13%, with labour intensity playing a secondary role in increasing India's female LFPR by 6%. This is the first big finding of the paper—contrary to the bulk of the literature, which gives primacy to India's norms as a binding constraint keeping female LFPR low, our decomposition shows an equally important role of labour intensity in pulling down female participation. This also passes the smell test—in labour-abundant countries like India, where the bulk of the labour force is in the informal sector with low wages, an increase in female labour supply alone in response to relaxation of norms would imply an increase in female employment but the expense of a reduction in wages. An increase in demand, on the other hand, increases employment and wages.

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[1] GDP per capita PPP, constant 2021 international USD.

[2] The average for the low- to middle-income countries is 41%.

[3] It is worth noting that India's male participation rate of 75% is at par globally. Please see Appendix A for the chart.

[4] $$Female\ Labour\ Force\ Participation\ Rate = \frac{Females\ in\ the\ labour\ force}{Eligible\ females\ in\ the\ population}$$

[5] $$Female\ LFPR = \frac{(GDP\ per\ capita) * (Total\ labour\ force/GDP) * (Female\ labour/total\ \text{labour})}{(Demographic\ composition\ of\ females)}$$

[6] Relative benefits of labour versus capital depend on the underlying production processes, which are broadly similar across peer countries, and hence do not distinguish the labour demand.

[7] Female intensity differs significantly across countries: India at 0.31, Bangladesh at 0.35, and the developed world at 0.49. Since the share of the female population is very close to half (0.5) in most countries, such a significant difference in their employment share must be because of their ability and willingness to participate, driven by norms.

Table ES–1: Contribution of Decomposed Variables in Determining Female Labour Force Participation Rate Relative to India (in %)

Country	GDP Per Capita	Labour Intensity	Female Intensity	Others[8] (Demographics)	Female LFPR
Bangladesh	-4	13	4	-7	42
The Philippines	2	6	13	-6	50
Vietnam	16	6	30	-19	68
Indonesia	17	0	13	-12	53

Source: Authors' calculations.

Note: LFPR = labour force participation rate; GDP = gross domestic product.

Why Did Female LFPR Decline From 2004–2005 to 2017–2018 and Then Rebound?

Between 2004–2005 and 2017–2018, India experienced a sharp decline in female LFPR from 37% to 21%, even as real GDP per capita doubled while overall labour employment fell by 3%. That is why this pattern is often described as "jobless growth." The decline was concentrated among rural women, many of whom are employed in agriculture, making a sudden drop in labour demand unlikely as the cause. Juxtaposing the decline in female participation with macro correlates like education enrolment, growth of rural GDP, and wage growth during this period suggests a supply-side contraction as a more plausible explanation for the decline in female LFPR. First, there was a significant rise in education enrolment: Secondary and higher education enrolment increased by 50% and 100%, respectively, adding around 45 million more students—many of whom would otherwise have entered the workforce. Second, rural incomes increased at a much faster pace compared to urban areas—per capita GDP growth in rural areas grew 1% faster than their urban counterparts during 2000 and 2012. Rapid increases in rural household income may have reduced the need for women to work. Third, significantly higher wage growth during this period points to a tight labour market.[9]

Between 2017–2018 and 2023–2024, India's female LFPR increased significantly from 21% to 34%, thereby reversing much of the earlier decline. Our decomposition analysis indicates that the bulk of this increase was due to a rise in female intensity in the subsistence sector[10] (Lewis, 1954). Since this was accompanied by a commensurate decrease in agricultural productivity by 9%, and a decline in wages of the self-employed by 32%, we argue that this increase was led by supply-side forces. The jury is out on whether this increase was distress-led, Basole et al. (2023) or a benign impact of MGNREGA and DAY-NRLM programmes, as reflected by Sinha (2025).

Table ES–2: Contribution of Decomposed Variables in Changing India's Labour Force Participation Rate Over the Years

Year	GDP Per Capita	Labour Intensity	Female Intensity	Others (Demographics)	Female LFPR
2004–2005 to 2017–2018	11	-16	-10	-1	21
2017–2018 to 2023–2024	8	0	10	-3	34

Source: Authors' calculations.

Note: LFPR = labour force participation rate; GDP = gross domestic product.

[8] This element reflects the denominator of the equation—representing the available women in any country on the basis of the demographic of the population and any variations in the sex ratio.

[9] See Appendix F.

[10] The subsistence sector includes agriculture and self-employment based on the Lewis Dual economy model proposes the presence of a traditional low-productivity/subsistence sector (agriculture and self-employment) with surplus labour and a modern capitalist/ productive sector.

What is Required to Spur Female Participation?

Our cross-country decomposition makes a fundamental point. The demand for labour has a pivotal role to play in determining female LFPR. This perspective shifts the policy focus from interventions solely aimed at increasing women's participation in total employment to expanding the overall employment opportunities in the economy. Since demand-side levers pertain to the ease of deploying labour vs capital for production processes, governments and businesses have a big role to play in enabling them to hire more labour and correcting policies that hurt the labour intensive industries.

A few key recommendations emerge to push labour demand in India:

- **Enhancing labour market flexibility:** India's labour laws are onerous, with 15% of firms citing them as a major constraint—far higher than 3.4% in Bangladesh and 6.4% in the Philippines. While the four New Labour Codes (effective from November 21, 2025) are a welcome step, more reforms are needed to boost labour intensity by improving capital–labour ratios in favour of labour.
- **Promoting labour-intensive industries through tariff reforms:** Peer countries excel in low-skilled labour-intensive sectors. India's low-skilled, labour-intensive industries account for about 16% of the GDP, significantly below peers such as Indonesia (26%) and Bangladesh and the Philippines (21%). India's high tariffs hinder this. For example, a 20% tariff on man-made synthetic yarn for textiles (vs 13% in Bangladesh) raises costs and hurts competitiveness. The Union Budget 2026–2027 announced the National Fibre Scheme to boost domestic production of man-made and synthetic fibre in India. It remains to be observed whether this scheme will reduce the overall production cost, which is critical for competitiveness. India must also correct tariffs and sign deep Free Trade Agreements (FTAs) for enhanced market access. The recent FTA with the EU and bilateral trade talks with the US are important steps. Domestic investments, such as the just-announced MITRA parks, may also play an important role in supporting export-driven demand in textiles.
- **Increasing public investment in health and education:** These sectors are labour- and female-intensive. In both these areas, India's current outcomes need significant improvement. One of the key reasons for their lack of performance is less-than-adequate state expenditure. As against a recommended level of 3% of GDP, governments in India (both the Government of India [GoI] and the State governments combined) spend about 1% of their GDP on public health expenditure (Raj, Dalal, & Gupta, 2024). Thus, a higher spend on these core services will directly increase female LFPR by increasing the demand for women's work, and indirectly by raising the quality of human capital in the long run.

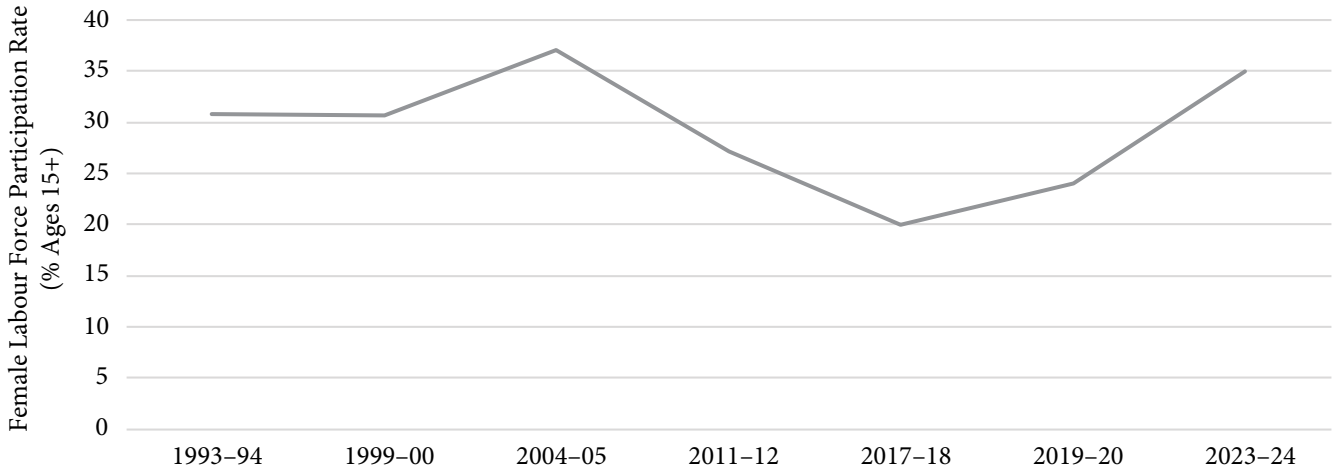
For long, a low female LFPR has been attributed to India's patriarchal norms. The women's reservation bill, passed in 2023, giving them 33% reservation in the parliament and state assemblies, will be historic when implemented. Nonetheless, a sustained rise in female labour force participation will also require a broader expansion in labour demand, essential in enabling more women to enter and remain in the workforce.

1. A Higher Female Labour Force Participation is a Must for Viksit Bharat

Prime Minister Modi has given a clarion call to the citizens, urging them to strive for India to become a developed country by 2047, the 100th year of its independence. This necessitates several shifts in the way India's economy and society operate, such as factor reforms (land, labour, and capital), trade reforms, a focus on human capital, and an ease of doing business, among others. There are a few critical parts of this puzzle that are at the intersection of both society and economy. One such element is the need to raise India's female LFPR. The average female LFPR in high-income economies[11] stands at 54%, significantly higher than India, which stands at 35%. For India to reach this imperative benchmark, it will need to add approximately 90 million women to the labour force. If these additional workers are absorbed at the current average productivity levels, India's GDP could increase by a substantial USD 736 billion[12] (The World Bank Group, 2024)—nearly one-seventh of its present GDP. This increment to GDP becomes USD 1.4 trillion if 80% of the women's labour force (current and the additional 90 million) were to be employed in the non-agricultural sector, to match China's present-day distribution.[13] Not only does increasing India's female LFPR lead to increased GDP by unlocking human capital, but when women are part of the workforce, it also acts as a catalyst for better development outcomes, since women have a significant influence on children's education and health (Mody, 2025).

Placing India's female LFPR with countries at different economic stages highlights its low level in the global context. At a GDP per capita of roughly USD 9,800[14] (World Bank Group, 2024), India's female LFPR currently stands at 35% (ILO, 2023)—well below the global average and also lower than peer economies such as Vietnam, Indonesia, the Philippines, and Bangladesh, where participation rates range from 42–68%.[15,16] India's current level, although low, represents a notable improvement from the 21% participation rate in 2017–2018.

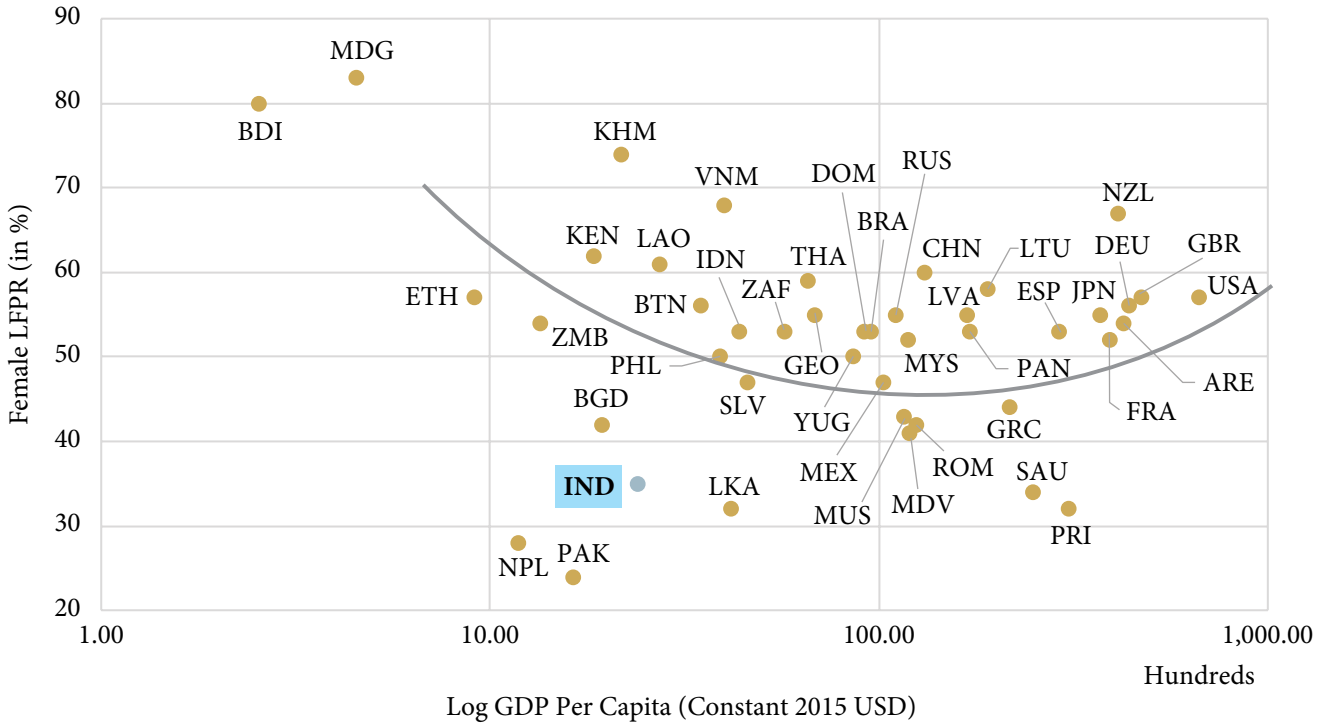
Figure 1: India's Female Labour Force Participation Rate (Per cent) Over the Last 30 Years



Source: ILOSTAT (International Labour Organization).

[11] Categorised by the World Bank.
[12] Authors' calculations in current GDP USD.
[13] Authors' calculations.
[14] GDP per capita PPP, constant 2021 international USD.
[15] The average for the low- to middle-income countries is 41%.
[16] It is worth noting that India's male participation rate of 75% is at par globally. See Appendix A for the chart.

Figure 2: Cross-country Female Labour Force Participation Rate: India is an Outlier



Source: ILOSTAT (International Labour Organization); World Bank Data.

Note: GDP = gross domestic product; LFPR = labour force participation rate.

It is thus critical to understand the underlying reasons behind the low level of India's female LFPR and its fall and rise over the years. Understanding these reasons will help craft policies that lead to a gainful increase in female labour and, subsequently, push for higher overall economic growth and development of the country.

Conceptually, female LFPR is a function of how much total work there is in an economy (the demand for labour/work) and the women's ability and willingness to partake in it (the supply of labour/work). A combination of these demand- and supply-side factors is thus responsible for determining the female LFPR and its changes over time. This is precisely what we do in this paper—decompose the female LFPR into components driven by demand and supply. Since the policy levers influencing labour demand vs supply of labour are starkly different, developing a better understanding of their respective roles is pivotal to India unlocking this untapped potential in its development journey.

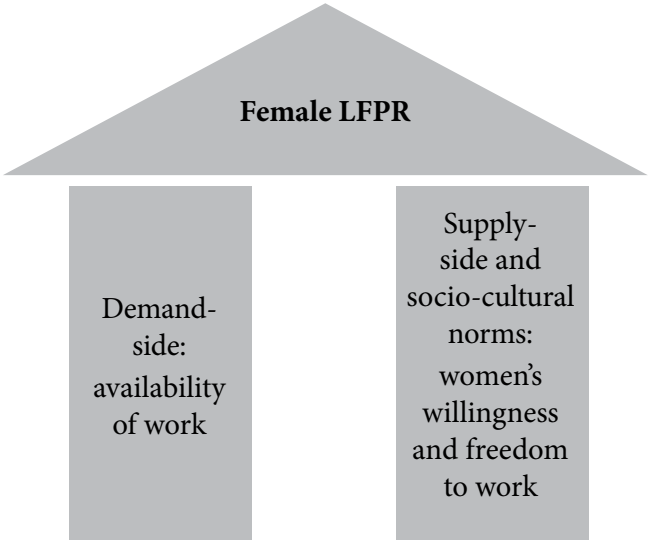
This paper is structured as follows. Section 2 reviews the existing literature, outlining the predominant explanations for India's low female LFPR and the scholarly work that has discussed its fall and rise over time. Section 3 presents our methodology of decomposing female LFPR into its core variables segmented into demand and supply side. Section 4 then applies the framework in a cross-country setting to understand India's low level, and subsequently in an inter-temporal setting to examine its fall and rise over the years. Section 5 concludes the paper by outlining the strategies to address the challenge of low female LFPR in India.

2. Literature Review

India's female LFPR has long been a subject of debate, with numerous studies examining the reasons behind its persistently below-average rate and analysing its fluctuating trend over the years. Existing literature has tried to understand the low level of India's female LFPR by observing the push and pull factors responsible for it. These factors widely include the supply side, i.e., a woman's willingness and ability to enter the labour force, and the demand side, i.e., absorption of this labour force by the market. Supply-side factors typically stem from labour market conditions and socio-cultural norms. The demand-side arguments analyse the extent to which production relies on labour rather than capital. This, in turn, is shaped by broader forces, such as technological progress and structural transformation, which influence the number and

type of jobs created. These studies, more often than not, ascribe low female LFPR to restrictive norms. On the other hand, the jury is out on what caused the decline and the subsequent increase. In this section, we explain the major studies of each strand and their main conclusions.

Figure 3: Drivers of Female Labour Force Participation Rates



Source: Literature and authors' analysis.
Note: LFPR = labour force participation rate.

2.1 Literature Gives Primacy to Supply-side Constraints for India's Low Female Labour Force Participation Rate

Major international and government reports over the years have tried to explain India's low female LFPR through the demand and supply levers, with the majority concluding in favour of the latter. In a report by the ILO, Verick (2014) argues that economic and social factors shape the outcome of female LFPR in India. The variables driving them are education attainment, fertility rates, age of marriage, economic growth cycles, urbanisation, and most importantly, socio-cultural norms.

Similarly, in an Organisation for Economic Co-operation and Development (OECD) paper, Sorsa et al. (2015) argue that since education and human capital are critical determinants of employment, female labour force participation is closely linked to the factors that influence women's access to and accumulation of these resources. The paper concludes that it is the deeply embedded socio-cultural norms which lead to its low levels, pointing to policy interventions focused on targeting education and financial inclusion to improve India's female LFPR.

In a more recent report, the Asian Development Bank (ADB) Institute (Fernandez & Puri, 2023) finds that the major reasons for low female LFPR in India are the pursuit of higher education, unpaid care work, and lack of proper access to healthcare. Therefore, they push for better literacy rates, solving the problem of time spent on homemaking and childcare, better healthcare, and the skilling of women.

McKinsey Global Institute (2015) assessed countries' standing on gender equality and attributed India's low female labour force participation to weak legal provisions for women, the persistence of child marriage, limited access to family planning, and gaps in education—all of which directly and indirectly constrain women's ability to engage in paid work.

We see this narrative take shape in government reports, too. The Ministry of Labour and Employment (2023) conducted a study to understand why so many women are out of the labour force in India. This study found that 44.5% of women quoted childcare, personal commitments, and homemaking (unpaid care work) as reasons to be out of the workforce. Another 33.6% stayed out to continue their studies. This study defined these norms as "unwritten social behaviour and social conduct which determine acceptable and appropriate doings and attitudes given the social context", which assigns women to unpaid care work.

Hence, the literature collectively underscores that while both demand- and supply-side factors play a role in shaping India's female labour force participation, it is usually the supply side that acts as a binding constraint in keeping the female LFPR low.

2.2 The Jury is out on the Fall and Rise of India's Female Labour Force Participation Rate

As opposed to an overwhelming body of literature concluding that the supply constraints keep female LFPR low in India, the opinion is split on what explains its trend over the last 20 years. Instead of a steady rise in female LFPR over the years, India has observed a drastic decline between 2004–2005 and 2017–2018, followed by a sudden rise between 2017–2018 and 2023–2024. Scholars have tried to understand this decline through the same levers of supply and demand.

Most notably, Deshpande and Singh (2024) find that most of the decline between 2011–2012 and 2017–2018 is explained by demand-side factors

such as structural transformation and local labour demand, emphasising the period of jobless growth which occurred from 2004–2005 onwards, the effects of which were seen far more for women. They argued that restrictive supply-side levers played a very small role in explaining this decline. Instead, they attributed the change primarily to a structural shift: a decline in the share of agriculture's total employment and an increase in the share of sectors in construction, services, electricity, gas, and water supply. This reduced the share of employment in women-centric roles. This narrative is supported by Chatterjee, Murgai, and Rama (2015), who observe that during this period of decline, the reduction in farm employment caused by structural changes was not matched by sufficient absorption of women into other sectors. On the other hand, Costagliola (2021) argues that this decline is due to traditional patriarchal notions of women's familial roles and societal expectations that limit their autonomy and mobility outside the home, consequently hindering their ability to enter and re-enter the workforce.

This decline was accompanied by a subsequent rise in female LFPR. Basole et al. (2023) note that this increase was largely distress-led in the aftermath of the COVID-19 pandemic. They highlight that this rise was concentrated in the rural areas, primarily within the self-employment sector, with the share in unpaid work expanding faster. Since both self-employment and agriculture are subsistence-oriented sectors that are characterised by high levels of disguised unemployment, such an increase points to distress-driven employment rather than gainful employment for women. This view is corroborated in findings by Ara and Shrivastav (2025), who provide evidence that the rise in participation has been concentrated in own-account work, unpaid family labour within agriculture, and the unorganised sector. There is another school of thought that explains the increase in female participation as a benign impact of the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) and Deendayal Antyodaya Yojana-National Rural Livelihoods Mission (DAY-NRLM) programmes, as reflected by Sinha (2025). He argues that the increase in participation reflects the power of the women's self-help collectives.

3. Decomposing the Female Labour Force Participation Rate into its Various Components

A country's female LFPR is defined as the share of women in the labour force—either actively employed or looking for work—relative to the total eligible women in the population.[17] This paper aims to answer two fundamental questions about India's female LFPR:

- What explains India's low female LFPR relative to its peer countries?
- Why did India's female LFPR first decline, then rise?

3.1 Methodology to Decompose the Female Labour Force Participation Rate

Step 1: We begin by expressing the female LFPR in terms of its numerator and denominator:

$$Female\ Labour\ Force\ Participation\ Rate = \frac{Females\ in\ the\ labour\ force}{Eligible\ females\ in\ the\ population}$$

Step 2: We disentangle the element in the denominator into three components—the total population of the country, the percentage of females in the total population, and the share of females in the total population who are above the age of 15.

$$\frac{Females\ in\ the\ labour\ force}{(Total\ population)\ X\ (Share\ of\ females\ in\ total\ population)\ X(Share\ of\ eligible\ women\ in\ female\ population)}$$

Step 3: We divide and multiply this expression by the total labour force and GDP.[18] This gives us the following equation:

$$\frac{\left(\frac{Females\ in\ the\ labour\ force}{Total\ labour\ force}\right)\times\left(\frac{Total\ labour\ force}{GDP}\right)\times\left(GDP\right)}{(Total\ population)\times(Share\ of\ females\ in\ total\ population)\times(Share\ of\ eligible\ females\ in\ female\ population)}$$

Step 4: Rearranging the various terms of the numerator and the denominator gives us our fundamental equation, which splits the female LFPR into three distinct variables: per capita GDP, labour intensity, and female intensity.

[17] Eligible women are defined as women who are above the age of 15.
[18] Since our comparison is first cross-country and then inter-temporal, we use GDP measured in purchasing power parity (PPP) terms, expressed in constant 2021 international $.

GDP per capita: demand-led | *Labour intensity: demand and supply-led* | *Female intensity: norms-led*

$$\frac{\left(\frac{GDP}{Total\ population}\right)\times\left(\frac{Total\ labour\ force}{GDP}\right)\times\left(\frac{Females\ in\ the\ labour\ force}{Total\ labour\ force}\right)}{Share\ of\ females\ in\ total\ population\times Share\ of\ eligible\ females\ in\ female\ population}$$

Demographics

3.2 Understanding Each Variable of the Decomposition

It is obvious from the above equation that female LFPR is the outcome of a multitude of factors, like the per capita GDP, the total labour force, female share in the labour force, and the demographic composition of a country, and is not determined solely by factors affecting women. Let us now understand what each of these variables is and how they affect the female LFPR.[19]

- **GDP per capita:** This component is demand-led. A higher GDP per capita implies higher demand for goods and services, which translates into higher demand for capital and labour to fulfil it. This gives us a positive association between GDP per capita and female LFPR. While this may be counterintuitive to those who are familiar with a U-shaped relationship between female LFPR and per capita GDP (Goldin, 1994), the answer to this apparent disconnect lies in the 'own' impact of GDP per capita on female LFPR, as in the above equation, as opposed to the per capita GDP acting as a 'proxy' for the level of development of a country and capturing multiple effects. In a typical U-curve, an increase in income at lower levels may dissuade the female of the house from working for money. That is why the female LFPR first drops at middle-income levels. A subsequent increase in income is also associated with higher education attainment, including that of females. This raises the opportunity cost of not working. Consequently, female participation increases, resulting in a U-curve. Since economic reforms accelerate the pace of per capita GDP growth, they are also good for female LFPR, in terms of their own effect. Thus, trade reforms, factor market reforms like the labour laws, land reforms, etc., that make up for the next generation of reforms critical for India's Viksit Bharat aspiration, are not only good for faster income growth but also for pushing up the female LFPR through a rise in labour demand.
- **Labour intensity:** This is the second term of the decomposition. Labour intensity is defined as the ratio of the labour force to GDP, that is, how much total labour is used to produce a certain level of GDP. Economic output of a country (or GDP) requires firms and organisations to combine labour and capital to produce goods and services, such that it minimises their cost. The same level of GDP can be produced with different combinations of labour and capital. At a certain level of per capita income (or development), the higher the labour intensity, the higher will be the female LFPR. This is because a higher labour intensity indicates a higher propensity to deploy labour (relative to capital), which translates into a greater demand for female labour, as well as for male labour.[20] Relative to peer countries (similar per capita), India's labour intensity is much lower, with 35 workers producing USD 1 million GDP, as compared to Bangladesh at 50, and the Philippines and Vietnam at 40.

  The relative benefit/productivity (demand) and cost of deploying labour versus capital (demand and supply) determine the firm's decision to choose one over the other. The former is determined by the production processes of a firm, which are broadly similar for peer countries for the same industries (steel versus textile) and similar firm size. Given this, significant cross-country differences (for peers) in labour intensity can arise if there is a significant difference in the cost of labour versus capital. Figure 4 illustrates the micro foundations of labour and capital deployment. The isoquant represents the given level of GDP in the country,

[19] Although the components in this decomposition are interrelated, they can be separated algebraically to establish their distinct impacts. This separation, however, does not imply that these factors operate independently in the real economy.

[20] The statement is true even if there is gender disparity in the labour market. Compared to the initial point, any increase in demand for labour will increase the demand for both men and women. This is because male LFPR is relatively stable; therefore, any increase beyond the organic growth will go to women. How much more for women is determined by factors like gender disparity, but there will be an increase. This excludes the extreme/abstract cases where the disparity is absolute. Please see Appendix B for the chart.

and the isocost represents the relative cost of utilising labour and capital. Firms optimise profits at the point 'A' where the isoquant is tangent to the isocost. When labour becomes cheaper relative to capital, the isocost line shifts to isocost 2, and the producers substitute capital with labour and move to a new equilibrium point 'B'.

The shift in isocost itself can happen for a couple of main reasons: increase in the availability of skilled and educated labour, and decrease in the cost of deploying labour due to labour reforms,[21] etc. The labour laws that specify the conditions under which labour is to be hired (and laid off) have a significant bearing on the overall cost of deploying labour and represent an important factor determining labour intensity. The more flexible the labour laws are, the easier it is for businesses to work with them, resulting in a higher labour intensity. About 15% firms in India say that labour laws are problematic, compared to 3.4% in Bangladesh and 1.7% in Vietnam. This is evident from a correlation of -0.25 between labour laws and labour intensity, indicating that in countries where it is more difficult for firms to work with labour, there is lower labour intensity (World Bank Group, 2024).[22]

Figure 4: Microeconomic Foundations Shaping Labour Intensity

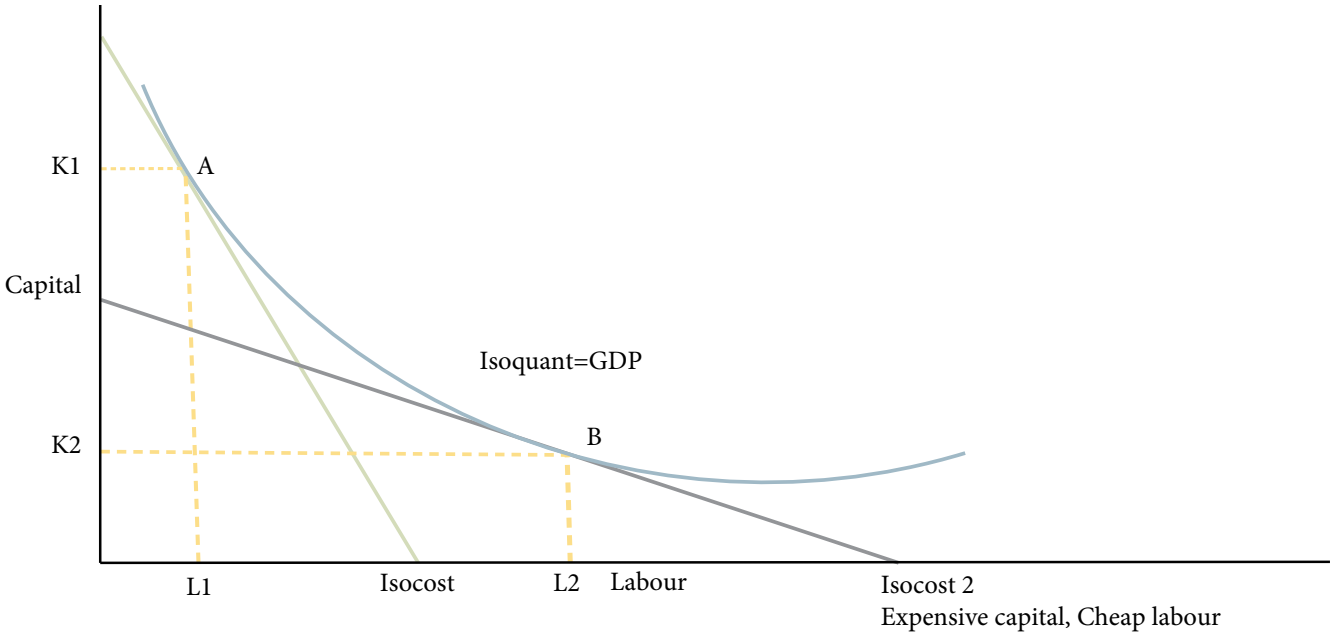


Figure 5: Correlation Between Labour Intensity and % of Firms saying Labour Laws are an Obstacle[23]

Source: World Bank data; authors' calculations.

Note: GDP = gross domestic product.

[21] For simplicity, we are sticking to the potential differences in the cost of labour only.
[22] The sample of countries is across lower-middle and high-income based on availability of data.
[23] See Appendix E for cross-country labour laws data.

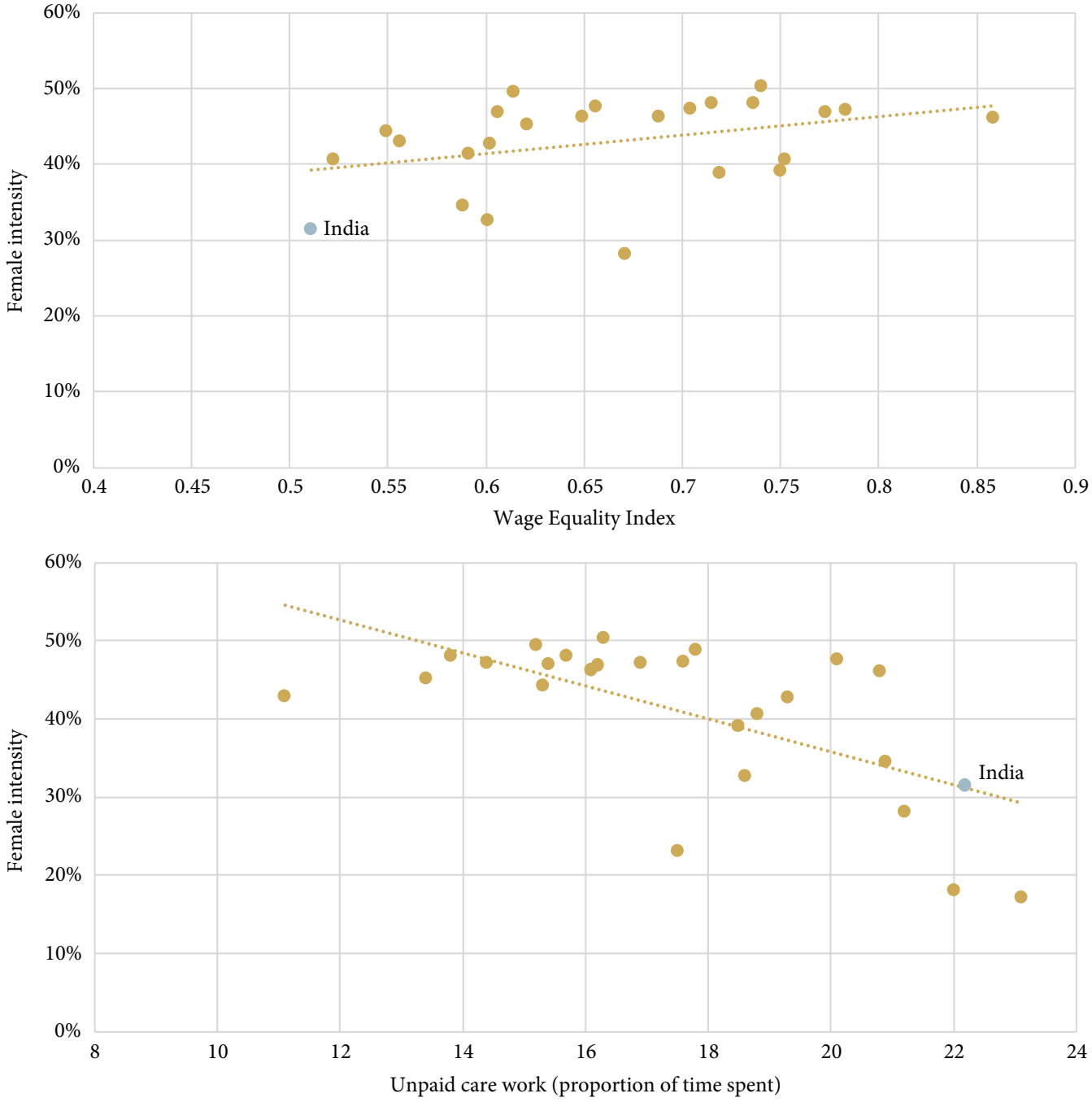
This raises one final question. What is the role of gender norms in determining female LFPR? This is where our third term comes in handy.

- **Female intensity:** This component in the decomposition equation is the ratio of the female labour force to the total labour force. It captures the gendered dimension of the labour force. The higher the proportion of females in the labour force, the higher their overall participation rate will be, keeping other factors constant. For the developed countries of G20, this ratio is at 0.47, indicating near gender parity at work. However, for India, it is 0.31, reflecting the gendered distribution of the labour force. There is no inherent reason for this share to be too different across peer countries when the share of the women's population is relatively similar.[24] Bordoloi, Awasthi, and Roy (2025) establish that social norms operating through families, communities, and institutions reinforce patriarchal hierarchies, both by directly constraining women's labour market outcomes and by shaping women's preferences to remain outside the workforce. Therefore, a woman's willingness and freedom to work play a key role in determining the female intensity. According to the World Values Survey (2022), attitudes towards gender and employment vary significantly across countries. In India, over 34% of respondents *strongly agreed* that men should have greater access to jobs than women when employment opportunities are scarce. This proportion is higher than in the Philippines (25%), Vietnam (7%), and Indonesia (27%) but smaller than in Bangladesh at 46%. For comparison, in developed economies like the United States, zero respondents strongly agreed to this statement. Norms, thus, play a critical role in determining the female intensity. We test our reasoning by examining the correlation between female intensity and some of the norm-led factors.[25]
    - ***Unpaid care work***[26] by women is universally considered a significant hindrance to their participation in paid work or employment (Hanna & Meisel, 2023). This is measured by the proportion of time spent in a day doing unpaid care work. It differs across countries based on their development level and the stringency of social expectations. A disproportionate burden of such work on women is reflective of social norms discouraging their entry into the labour force. We find a strong negative correlation of 0.65 between unpaid care work and female intensity. The higher the burden of unpaid care work, the lower the female intensity.[27]
    - ***Wage equality***[28] plays a significant role in dictating a woman's decision to enter the labour force (World Economic Forum, 2023). Often, a woman has to measure the trade-off between working and child/home care, making wage equality an even stronger incentive to work. OECD (2021) finds that one-third of overall wage inequality is due to differences in wage-setting practices between firms and not differences due to skills. Therefore, women are not paid at par with their male counterparts for similar jobs and skills. At the margin, this acts like a disincentive for them to work. The correlation between female intensity and wage equality is 0.45,[29] indicating that higher wage equality is associated with higher female intensity.

Along with conducive norms, a country with a higher share of sectors with female-intensive employment, like education, health, etc., has a higher share of overall female intensity. India can improve overall female intensity by accelerating the expansion of these sectors, especially given its significant lag in human capital.

[24] The average percentage of female population in total population for high-income economies is 50%, while India is at 48.5%.
[25] Here, our sample of countries exclude low-income countries such as Burundi, Rwanda, and Niger because they have higher female intensity due to lower per capita income, and there is an increase in distress-led work from females.
[26] Unpaid care work is calculated as the proportion of time spent by women in unpaid care work activities in the entire day.
[27] See Appendix E for cross-country unpaid care work data.
[28] Wage Equality for Similar Work index. The wage parity index ranges from 0 to 1 where a value of 1 indicates full wage parity between male and female workers. Values below 1 indicate that female workers earn less than their male counterparts, with the degree of disparity increasing as the index moves away from 1.
[29] See Appendix E for cross-country wage equality data.

Figure 6: Correlating Female Intensity with Unpaid Care Work and Wage Equality



Source: Authors' calculations; United Nations Women Technical Brief; World Economic Forum.

- **Demographics:** The final element of the decomposition is the demographic composition of any country. This element in the denominator reflects (a) the female-to-male population of any country, which is more or less the same across all countries, and therefore not a major differentiating factor, and (b) the percentage of eligible women in the female population, which differentiates based on the demographic composition of the country. An increase in the share of eligible women expands the denominator of the LFPR.

Having established a theoretical and empirical understanding of the decomposition methodology, we now apply the framework to answer our core questions—why is India's female LFPR low compared to its peers, and what caused the decline and subsequent increase in participation over time.

4. Applying the Decomposition Framework[30]

The above framework provides us with a neat way to decompose female LFPR into its three core elements: labour intensity, female intensity, and the per capita GDP.[31] We will now use the decomposition framework to understand India's low female LFPR compared to its peer countries and its changes over time.

4.1 Lack of Labour Demand Plays a Key Role in Keeping India's Female Participation Low

Labour intensity and female intensity are both ultimately determined by the level of development, of which GDP per capita is a good proxy.[32] Hence, to understand why our female participation is low (relative to our level of development), we need to choose the countries that are similar in terms of India's per capita GDP[33]—Bangladesh, the Philippines, Indonesia, and Vietnam. Though these countries have broadly similar per capita incomes, they exhibit striking variation in female LFPRs. In order to calculate the independent effect of each of the three variables, we compare India's components with those of its peer economies. To isolate individual effects of each component, we sequentially substitute each variable of India with respect to the aforementioned countries while keeping the other components fixed at their current values.

First, we substitute India's GDP per capita with that of peer economies to determine how India's LFPR would differ if it were at their level of economic development. Second, we replace our labour intensity with that of the peer countries, keeping GDP per capita and female intensity constant (at their original level), to evaluate how much India's LFPR would change if only its labour intensity mirrored that of its peers. Finally, by substituting India's female intensity while keeping all else constant, we isolate the contribution of norm-led factors. This helps identify how much of the gap in female LFPR could be bridged if India's labour market exhibited the same gendered participation patterns as its counterparts, keeping the other components constant. Let us now understand the differences with each peer country.

Bangladesh: Higher Female Participation Results From Conducive Demand Factors

Bangladesh's female LFPR is almost 7 percentage points higher than India's. Although India's female LFPR has seen a decline and then a rise to levels similar to those of 1993, Bangladesh has experienced a gradual increase. Our decomposition helps point to elements that explain the difference between the contemporary female LFPR for both these countries. Bangladesh's GDP per capita is less than India's; thus, if India had Bangladesh's GDP per capita (keeping other factors constant), its female LFPR would fall by 4%. However, if India had Bangladesh's labour intensity, its LFPR would have been higher by 13 percentage points. When India's female intensity is replaced with Bangladesh's, the former's LFPR rises by 4 percentage points. This indicates that the key reason for Bangladesh's higher female LFPR is its significantly higher labour intensity.[34]

Table 1: Peer Economies' Female Labour Force Participation Rate

	India	Bangladesh	The Philippines	Indonesia	Vietnam
Female LFPR (%)	35	42	50	53	68
GDP per capita PPP (Constant 2021 International USD)	9,302	8,242	9,899	13,890	13,546

Source: International Labour Organization Data (2023); World Bank Data (2023).

Note: LFPR = labour force participation rate; GDP = gross domestic product; PPP = purchasing power parity.

[30] The methodology for this decomposition is more applicable in a cross-country analysis than an inter-temporal scenario due to the interdependencies amongst the variables.

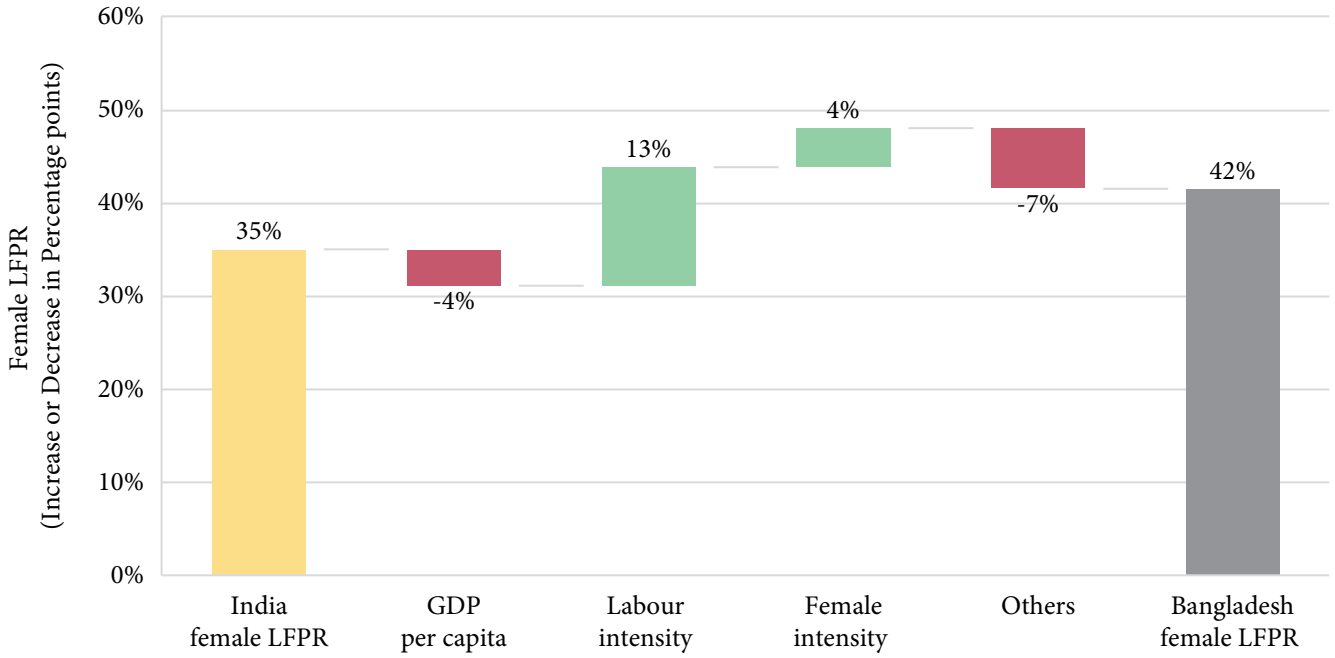
[31] Since demographics change slowly and are not a policy lever, we disregard them for most of the paper.

[32] See appendix D.

[33] Due to the interdependencies of these variables, the GDP per capita sets the base for how the elements interact with each other. See Appendix D.

[34] This decomposition should not be interpreted to imply that India needs to increase its labour intensity by 13% and female intensity by 4% to match Bangladesh's female LFPR. An increase in India's labour intensity, for example, will invariably invoke changes in female intensity also. This decomposition looks at each element independently and helps us infer which is the one causing the biggest difference.

Figure 7: India's Female Labour Force Participation Rate with Respect to Bangladesh



Source: ILOSTAT (International Labour Organization); World Bank; authors' calculations.

Note: LFPR = labour force participation rate.

What explains Bangladesh's higher labour intensity? We find that about 90%[35] of the higher labour intensity is due to the higher share of labour-intensive industries in Bangladesh's overall GDP[36] compared to India. A key factor behind this is the rapid growth of their ready-made garment (RMG) industry, a labour-intensive industry, which has a share of 80% in total exports by Bangladesh. In 1983, RMG exports accounted for only 4% of Bangladesh's total exports. At USD 42 billion, they stood at 81% of the total exports in 2021 (Bangladesh Export Promotion Bureau, n.d.), with over 60% of their employees being female. Without this increase in the RMG industry, Bangladesh's female LFPR would have been approximately 36% today.[37] Thus, it is the RMG sector's labour-intensive, export-driven, and female-dominated structure that has played a pivotal role in gradually pushing up its female LFPR over the years. The underlying implication of these results points towards the need for India's labour-intensive industries to be globally competitive, leading to a subsequent rise in its female LFPR.

The Philippines: A Higher Female LFPR is Largely due to Favourable Gender Norms Supported by Conducive Labour Market Conditions

India and the Philippines have almost the same level of per capita income, and hence the difference in women's participation has to be explained by the other two factors. Replacing India's female intensity with that of the Philippines raises the female LFPR by 13 percentage points, while substituting India's labour intensity increases it by 6 percentage points. Hence, the primary reason for the Philippines' higher female LFPR is due to its favourable social and cultural norms that facilitate women's participation in the workforce, supported by conducive labour market conditions. Several norms-led factors support this inference. The proportion of time females in the Philippines spend on unpaid care work is 18.8%, as compared to 22.2% in India. Furthermore, the Philippines' wage equality ratio stands at 0.8 as compared to 0.5 in India.

Vietnam: Higher Income and Favourable Gender Norms Explain the Higher Female LFPR

The gap between India's and Vietnam's female LFPR can be explained as a combination of all three elements of the decomposition equation. The first

[35] Authors' analysis.
[36] See appendix C for labour-intensive industries.
[37] Authors' calculations.

positive contribution comes from GDP per capita, which pushes India's female LFPR by 17%. The second positive contribution comes from labour intensity at 6%, implying that not only is Vietnam's GDP per capita higher, but also that it utilises labour-intensive ways to produce the higher GDP. The female intensity adds a further 30% increase in female LFPR, indicating a much more conducive societal environment towards women joining the labour force. Vietnam's negative difference in 'others' can be attributed to demographic factors. Applying a similar demographic structure to India would exert downward pressure on its female LFPR since the enlarged pool of women would increase the denominator in the equation. Consequently, a substantial expansion in the absolute number of women actively participating in the labour force would be needed to maintain the LFPR levels.

According to the Ministry of Statistics and Programme Implementation (2023), the population below the age of 15 is expected to decline substantially by 2036 due to declining fertility rates, alongside an expansion in the population of the middle-aged female cohort. Consequently, the share of eligible women in the population is expected to increase. Table 2 indicates that when India's demographic structure is replaced with that of our peer countries, we observe a substantial decline in its female LFPR, ranging from 6% to 19%. Therefore, unless employment for females rises proportionally with the growing pool of eligible women, India is likely to experience a decline in female LFPR.

Indonesia: Higher LFPR is due to Higher Per Capita GDP and Female Intensity

Contrary to other cases described earlier, in Indonesia's case, we observe no impact from labour intensity, suggesting that Indonesia's intensity of job creation is similar to that of India. The bulk of the higher female LFPR comes from a higher per capita GDP (17%) and female intensity (13%).

The cross-country comparison reveals that the reason why peer countries have a higher female LFPR is due to a variety of factors. For some, like Bangladesh, the impetus comes from the higher share of labour-intensive sectors, pushing up the labour demand. For the others, like the Philippines and Vietnam, it is the female intensity, with conducive labour markets playing a supporting role. Finally, for Indonesia, a higher LFPR is due to female intensity and per capita GDP. This refines the simplistic narrative that is usually propounded for higher female LFPR in these countries as largely the outcome of their better societal norms. Let us now turn to our second question.

Table 2: Results of the Decomposition

Country	GDP Per Capita (%)	Labour Intensity (%)	Female Intensity (%)	Others (%)[38]	Female LFPR (%)
Bangladesh	-4	13	4	-7	42
The Philippines	2	6	13	-6	50
Vietnam	16	6	30	-19	68
Indonesia	17	0	13	-12	53

Source: International Labour Organization; World Bank Data; authors' calculations.

Note: LFPR = labour force participation rate.

[38] This element reflects the denominator of the equation—representing the available women in any country on the basis of the demographic of the population and any variations in sex ratio.

Box 1: Explaining Select State-level Differences in Female Labour Force Participation Rate Using our Decomposition Methodology

Table 3: Results of State-Level Differences in Female Labour Force Participation Rate.

State	Female LFPR (%)	GDP per Capita (%)	Labour Intensity (%)	Female Intensity (%)	Others (%)
Bihar	27	31	-20	4	-6
Himachal Pradesh	60	-7	0	-20	3
Punjab	29	-3	4	3	2
Uttarakhand	37	-6	9	-7	3

Source: Ministry of Statistics and Programme Implementation (2024); Reserve Bank of India (2024); National Commission on Population, Ministry of Health and Family Welfare (2019).

Note: LFPR = labour force participation rate; GDP = gross domestic product.

We could also leverage the decomposition methodology to unravel the demand–supply dynamics that determine female LFPR across Indian states. There is significant heterogeneity across states in terms of female LFPR; states like Himachal Pradesh (HP) are at 60%, compared to Bihar at around 27%. It would be instructive to understand why Bihar's female LFPR is so low and relatively high for HP. We conduct a cross-state analysis for a small set of states, benchmarking their LFPR against India's at 35.6% to examine how demand-side factors and supply-side factors shape each state's deviation from the national average.

Bihar: Most of the loss relative to India is due to India's higher GDP per capita (31%) compared to Bihar, indicating a weaker demand in the state. Despite this, Bihar is more labour-intensive than the national average (20% higher than India), which significantly offsets the negative income effect. Interestingly, we see that the contribution of female intensity is small (4%) in keeping Bihar's women out of the labour force. For Bihar to increase its female LFPR, it needs to strengthen its growth attributes—physical infrastructure, social infrastructure, and quality of governance—on an immediate basis. In the long run, there also needs to be a focus on large cities such as Patna, which are the key economic centres (Gupta & Sachdeva, 2025). This will usher in a growth cycle, pushing the demand for labour.

Himachal Pradesh: Himachal Pradesh's female LFPR is amongst the highest at 60%. A substantial portion of this high level is due to the state's favourable female intensity relative to the national average and its higher GDP per capita (adding 20% and 7% to its female LFPR, respectively). Labour intensity remains neutral, indicating that higher participation is driven by supply-side and social norms. This is a similar phenomenon in higher-income economies, where low labour intensity is offset by stronger social norms and higher per capita GDP.

Punjab: Punjab's female LFPR remains below the national average. Despite being relatively better off economically, its weaker labour market conditions and social norms (4% and 3% less than the national average, respectively) equally contribute to this. Since Punjab has labour-intensive hubs like Ludhiana specialising in textiles, and a potential IT hub like Mohali (Gupta & Sachdeva, 2025), a strategy to nurture these centres will go a long way in improving female LFPR.

Uttarakhand: Uttarakhand performs slightly better than the national average in terms of female LFPR. It has a higher level of GDP per capita than India (which boosts its female LFPR by 6%). In terms of labour intensity, Uttarakhand utilises significantly less labour than India (9%). In terms of female intensity, it performs better than India by 7%. The state has a strong competitive advantage in the auto industry and the food and beverage industry (Gupta & Sachdeva, 2025). It should look to deepen these, which will create demand for labour, pushing female LFPR further.

4.2 Over-time Changes in Female Participation Rates Were Led by Supply-side Forces[39]

As illustrated in Figure 1, India's female LFPR has showcased significant changes over the last few decades. More specifically, the years 2004–2005 to 2017–2018 witnessed a significant decline in female LFPR, which has been widely documented and debated in the literature. Post 2017–2018, we have observed a reversal in the trajectory of a notable recovery. We will now use our decomposition methodology to explain these over-time shifts.

Since the female LFPR in India can change over time due to absorption in agriculture as well as in the self-employed sectors, it is important to distinguish that part of the female labour force vs employment in other sectors. Building on the seminal work of Lewis (1954) on the dual-economy model, *Economic Development with Unlimited Supplies of Labour*, which distinguishes the subsistence sector characterised by unlimited labour supply, limited production output, and a modern productive sector, we use this theory to alter our initial formula in order to incorporate this in the case of India. This is important because in India, women have been historically concentrated in agriculture or household work, and their presence in the productive sector has remained largely limited (Srivastava & Srivastava, 2010). To capture these dynamics, we divide the female labour force in our formula into women employed in the productive sector, women employed in the subsistence sector (Lewis, 1954), and women who are looking for work, i.e., women who are unemployed. This will allow us to identify within our decomposition framework where the decline in female participation came from and what caused the subsequent increase.

From our initial equation, we break down female intensity into the following elements, while the rest of the expression remains the same as before.

$$Female\ intensity = \left(\frac{Females\ in\ productive\ sector}{Total\ labour\ force}\right) + \left(\frac{Females\ in\ subsistence\ sector}{Total\ labour\ force}\right) + \left(\frac{Unemployed\ females}{Total\ labour\ force}\right)$$

Decline in Female Labour Force Participation Rate Between 2004–2005 and 2017–2018[40] is led by a Significant Decline in the Supply of Female Labour

Between 2004–2005 and 2017–2018, India's female LFPR declined sharply from 37% to 21%. While GDP per capita (PPP) doubled (figure 8), the labour force used to produce this level of income decreased by 3%, evident from the 16% decline in female LFPR due to a fall in labour intensity, coupled with a significant decline due to female intensity (10%). This is consistent with the narrative of jobless growth that is typically used to describe this phase by some observers of the Indian economy (Tejani, 2016). What may have caused this sharp substitution of capital for labour—lack of labour demand or reduction in supply of female labour?[41]

A spatial and gender decomposition reveals that the majority of this decline was concentrated in rural females. Since agriculture accounts for 77% (Ministry of Statistics and Programme Implementation, 2024) of the female rural workforce, any explanation of the decline in rural areas has to describe the decline in the agriculture sector (Mahajan, Gulati, & Sharma, 2025). It is unlikely that there was such a sudden autonomous change in production processes that demanded significantly less labour[42,43] (Afridi, Bishnu, & Mahajan, 2020). Juxtaposing the decline in female participation with macro correlates like education enrolment, growth of rural GDP, and wage growth[44] during this period suggests a supply-side contraction rather than weak labour demand as the primary reason.

[39] For the sake of consistency, we keep our data sources as ILO even in the inter-temporal analysis. ILO derives their data from Periodic Labour Force Survey (PLFS) calculated at current weekly status (CWS); there are few changes in methodology to keep them comparable to other countries. The National Sample Survey (NSS) includes both codes 81 and 82, while ILO includes only code 81 to maintain consistency with international standards.

[40] There may be disparity in the data due to the shift from NSS to PLFS in data survey methods.

[41] Both the demand and the supply curves are dynamic in nature and change over time, and contribute to changes in LFPR. In this paper, our objective is to argue for the most prominent reason, in terms of demand and/or supply.

[42] The reader must know that there is literature to the contrary, which argues that mechanisation of labour led to reduction in demand for labour (prominent for female labour).

[43] The employment intensity for all sectors declined between this period with the median decline being 50%.

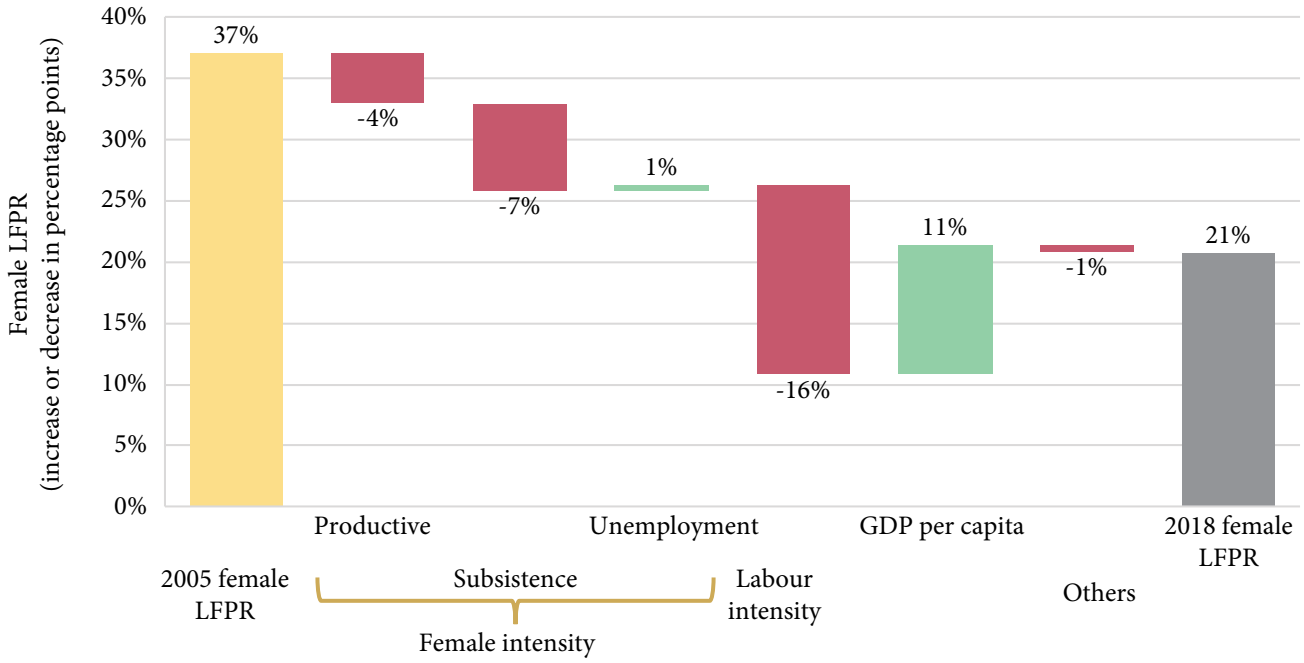
[44] See appendix F for wage growth data.

Between 2005–2006 and 2015–2016, enrolment in secondary and higher education increased by 50% to 100% (Ministry of Human Resource Development, 2018), respectively. Coupled with a rise in population, this increase in enrolment resulted in 45 million more students (Ministry of Human Resource Development, 2018), a significant share of whom would otherwise have joined the labour force. Secondly, the share of rural NDP stayed constant at around 47–48% between 1999–2000 and 2011–2012, which, in the wake of increasing urbanisation, implied that per capita rural GDP growth was 1%[45] higher compared to urban counterparts during this period (Mohan, 2025). Ruralisation of manufacturing is one of the key reasons for this atypical development, giving further credence to a significant increase in the income of the rural household during this period. This higher income may have prompted households to dissuade their women from working, causing a contraction in female labour supply, consistent with a U-shaped income and female LFPR curve. Third, significantly higher wage growth during this period points to a tight labour market.[46]

The Increase in Female Labour Force Participation Rate Between 2017–2018 and 2023–2024 is Largely due to an Increase in the Supply-led Factors

Between 2017–2018 and 2023–2024, India's female LFPR increased significantly from 21% to 34%, thereby reversing much of the earlier decline. Our decomposition indicates that the bulk of this increase was due to a rise in female intensity in the subsistence sector, with an almost static labour intensity.

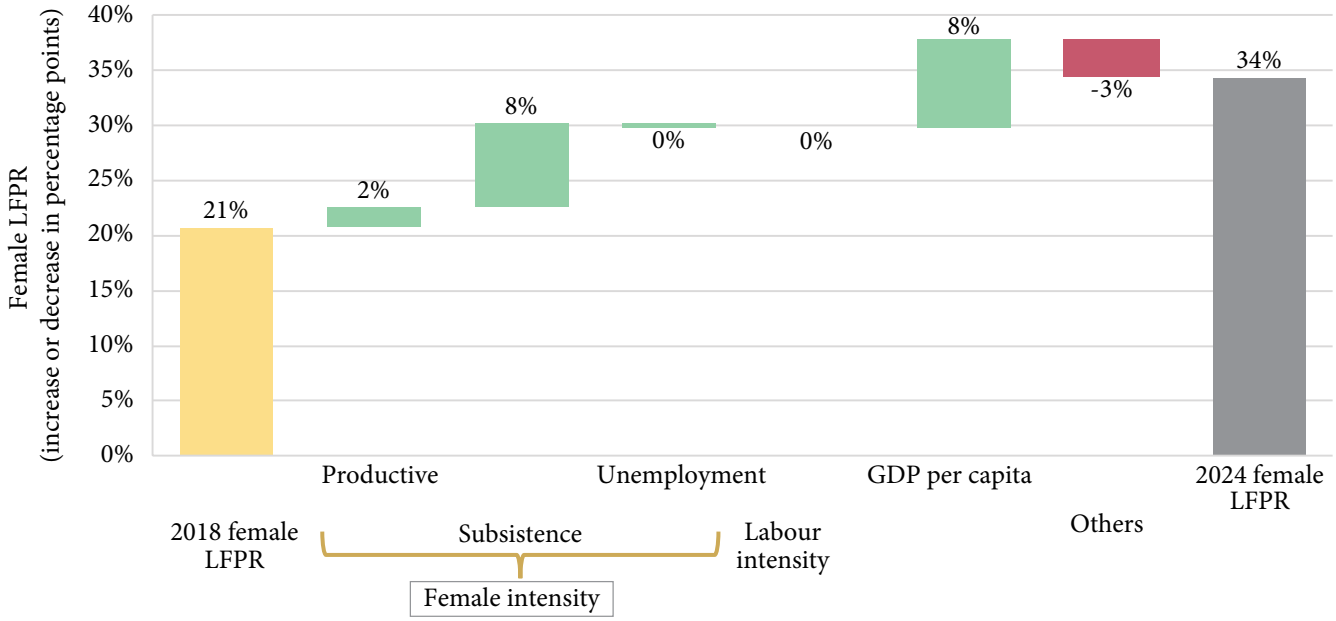
Figure 8: Decline in India's Female Labour Force Participation Rate Between 2004–2005 and 2017–2018



Source: International Labour Organization; World Bank; authors' calculations.
Note: LFPR = labour force participation rate; GDP = gross domestic product.

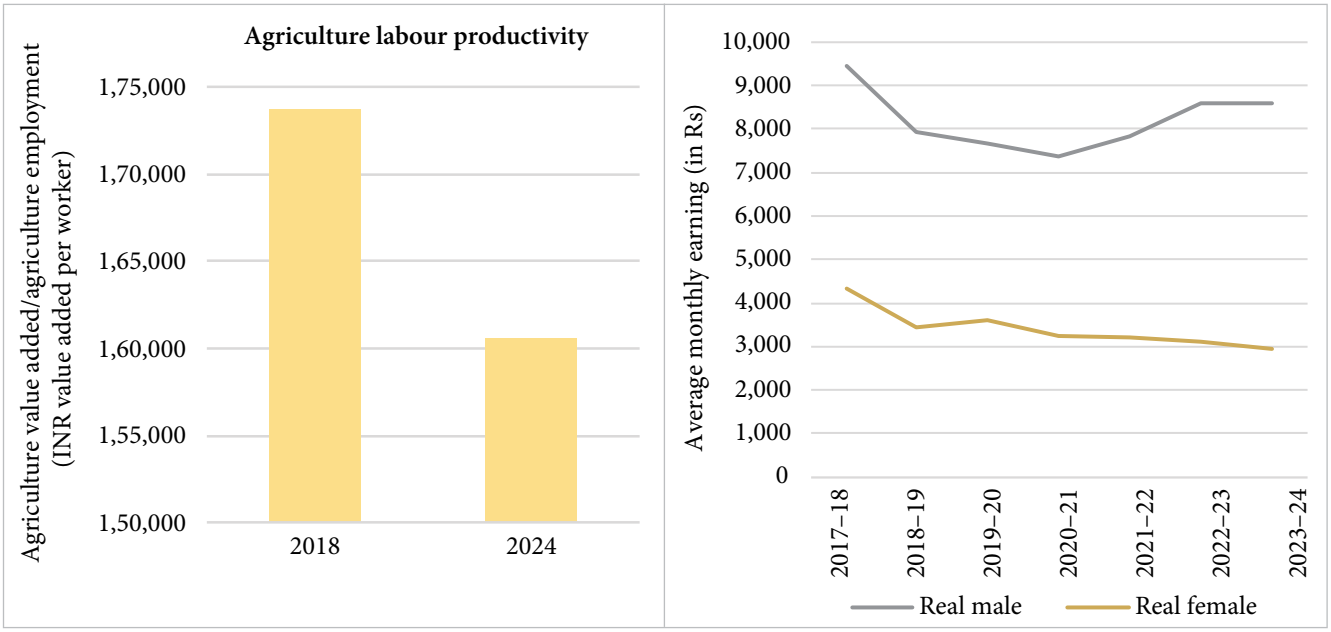
[45] Authors' calculations.
[46] See appendix F.

Figure 9: Increase in India's Female Labour Force Participation Rate Between 2017–2018 and 2023–2024



Source: International Labour Organization; World Bank; authors' calculations.

Figure 10: Decline in Agriculture Productivity and Decline in Self-employment Earnings



Source: World Bank Data; ILOSTAT (International Labour Organization); Economic Survey of India 2024-2025.
Note: PPP = purchasing power parity.

Again, was the increase in female LFPR during this period supply- or demand-led? Through our decomposition, we observe the increase that occurred in female intensity, while the labour intensity remained unchanged. Therefore, the number of females increased in the labour market rather than the propensity to hire overall labour. Given that most of this increase was in the subsistence sector, we observe a fall in agricultural productivity and wages[47] (Figure 10), which points toward a supply-led increase. An increase in supply without a concomitant increase in demand leads to pressure on productivity and wages, which is precisely what we observe.

This raises one final question. Why did female intensity increase to begin with? The jury is out on this.

[47] Since the bulk of the labour force in India is employed in the informal sector, where wages are already low, a supply-side increase in female LFPR is unlikely since it will push the already low wages downwards.

Basole et al. (2023) argued that the recent rise in women's participation was largely a distress-driven increase in self-employment and agriculture. They corroborated this claim by noting that women's earnings from self-employment declined in the periods before and after the COVID-19 pandemic. Menon and Jha (2025) further argued in their analysis that the increase in household income was not due to an increase in wages but an increase in participation, pointing to a distress-led increase in income, especially coming from women in the rural households in self-employment by almost 20 percentage points. There is another school of thought that explains the increase in female participation as a benign impact of MGNREGA and DAY-NRLM programmes, as reflected by Sinha (2025). He argues that the increase in participation reflects the power of the women's self-help collectives, and that it is still early days for the benign productivity effect to reflect fully.

In conclusion, the inter-temporal analysis using the decomposition methodology coupled with micro-foundations of demand and supply and juxtaposing with key macro correlates, helps us narrow down the changes to being demand- or supply-driven. Our analyses show that both shifts are primarily caused by the women's supply curve changing, induced by fundamental changes like the spread of education and faster growth in rural income, etc.

5. How to Spur Female Participation?

Having understood the dynamics of female LFPR between demand-led and supply-led factors, we now turn to the key policy levers to raise female LFPR. The central theme that emerges from this analysis is that labour market conditions, coupled with macroeconomic growth, have a pivotal role in determining female LFPR, along with the often-cited socio-cultural norms. This perspective shifts the policy focus from interventions solely aimed at increasing women's participation in total employment to expanding the overall employment opportunities in the economy. When labour demand rises and job creation accelerates, women benefit too. It is also important to note that labour demand and growth can be influenced through policies in the short to medium term, compared to societal norms. Furthermore, many of these policy levers—such as addressing labour reforms—can improve socio-cultural norms over time, creating a virtuous cycle. Goldin (1991) found that women's participation in the workforce during World War II, due to a demand-side push, eventually eroded some of the socio-cultural norms that had earlier hindered their entry. Increasing female LFPR through the demand side, therefore, would unlock a virtuous cycle: higher job creation, higher labour intensity, and better female participation rates, leading to better socio-cultural norms and further increases in female LFPR.

Keeping the focus on expanding labour market opportunities, we carve out a demand-side reform agenda for the governments (a combination of Central and State) to improve India's female workforce in the productive sectors.

Enhancing labour market flexibility:

India's labour laws are onerous. Nearly 15% of firms in India report labour laws as a major or severe constraint—significantly higher than 3.4% in Bangladesh and 6.4% in the Philippines (World Bank Group, 2024). There are multiple reasons for the same, ranging from cumbersome compliance requirements to the necessity for the firms (exceeding a certain size) to take prior government permission before laying off workers. In most other peer countries, there is no such condition.[48] Realising the need, the government has clubbed the 29 labour laws into four New Labour Codes around wages, social security, safety, and industrial relations. On November 21, 2025, the GoI made these laws effective. In addition to this simplification, they increased the minimum size threshold beyond which the firms need to take prior government permission before laying off, from 100 to 300 workers. While these are welcome steps, much more needs to be done in terms of enhancing the labour market flexibility, which will incentivise the firms enough to reassess their optimum capital-labour ratio in favour of labour, thus improving the labour intensity of the Indian economy, pushing the female LFPR (Bhandari, 2025).

Promoting labour-intensive industries:

- ***Rationalising tariffs:*** Most of India's peer countries have a higher share of low-skilled labour-intensive industries in their GDP. Indonesia leads with these industries contributing to 26% of GDP, followed by Bangladesh and the Philippines at 21% and Vietnam at 20%, while India lags behind at 16%. This is natural, since labour is abundant in

[48] We looked at the labour laws of these countries—India, Bangladesh, China, South Korea, Thailand, Vietnam, Mexico, and Poland. Third-party approval is also needed in Vietnam. But unlike India where it has to come from the government, in Vietnam, the approval from the labour unions is sufficient.

these countries and hence, they have an inherent comparative advantage in such industries. One of the constraining features that has hindered the proliferation of such industries in India is our misplaced tariff architecture. As observed earlier, the textile industry is labour-intensive and uses raw materials that can be either man-made or natural. The bulk of global textile demand is for man-made apparel. India imposes a tariff of 20%[49] on man-made fibres (TransCustoms, n.d.), compared to Bangladesh at 13% (National Board of Revenue Bangladesh, 2026). This increases the cost of production for man-made garments in the country, making it difficult for Indian firms to compete in the international market. The Union Budget 2026–2027 has introduced the National Fibre Scheme to boost domestic production of both natural and man-made fibres, thereby reducing import dependence. It needs to be seen to what extent this scheme lowers the cost of synthetic yarn and consequently reduces the overall production costs, since that is the key marker of success in the global markets (Press Information Bureau, 2026).

- ***Signing FTAs:*** In addition to correcting our tariff structure, India also needs to expedite the signing of deep FTAs with key trading partners so that it gets unhindered access to these markets. The success of Bangladesh's textile industry and its impact on its female LFPR is a testimony to the criticality of leveraging international trade to fully utilise its dominant resource: labour. The recent FTA between India and the EU represents a significant shift in favour of India's textile sector. Before this agreement, India's apparel exports to the EU were subject to Most Favoured Nation (MFN) tariffs at 12% (Economic Times, 2026), while Bangladesh benefited from duty-free and quota-free access under the EU's Generalised Scheme of Preferences (GSP) through the 'Everything but Arms' arrangement. This access gave Bangladesh a substantial competitive advantage. With the new FTA, India's exports face zero tariffs, enabling India to compete more directly with Bangladesh in the EU market (European Commission, n.d.). This development is particularly significant given the size of the EU apparel market at USD 263 billion. Currently, India's apparel exports to the EU are at USD 7.2 billion (Press Information Bureau, 2026), compared to Bangladesh's at nearly USD 20 billion. This tariff elimination thus presents potential for India to expand its market share. Additionally, the bilateral trade agreement with the US is expected to further improve India's competitiveness. The tariff reductions from 25–50% to 18% would place India at an advantage over other South Asian economies (The Economic Times, 2026).
- ***New Industrial Parks:*** The export-led demand generation may also be reinforced by public investment in infrastructure and targeted support for labour-intensive sectors. The recently announced Pradhan Mantri Mega Integrated Textile Region and Apparel (PM MITRA) scheme,[50] which aims to establish integrated textile parks across key regions, could play an important role in strengthening the domestic production ecosystem for the textile and apparel industry, provided it is able to improve the industry's competitiveness.

Increasing public investment in health and education:

Both these industries are not only labour-intensive, but also female-intensive.[51] India remains woefully inadequate in terms of the quality of education and the provision of affordable healthcare to its people. According to the Annual Status of Education Report (ASER, 2025), only 23% of students in Grade 3 met basic reading standards, and 33% achieved minimum arithmetic proficiency. By Grade 5, these figures rose only modestly to 44% for reading and 30% for arithmetic, highlighting persistent weaknesses in foundational skills. Furthermore, India also lacks in its spending on public healthcare. Raj, Dalal, and Gupta (2024) note that India's spending on public healthcare stands at a mere 1% of the GDP, and the Centre and State governments will need to increase it by at least 0.2% of GDP each year till it reaches 3% of GDP. Thus, an enhanced state spending on these two is not only critical for growth and development but also has a collateral benefit of increasing female LFPR.

There is significant traction on labour and trade reforms with an objective of making the Indian economy competitive, thus pushing growth. As growth picks up, it will raise demand for labour. Our decomposition tells us that this higher demand, in turn, will result in a higher female LFPR, something we do not seem to comprehend fully.

[49] This is not uniform across all categories of synthetic yarn.

[50] Ministry of Textiles launched the PM MITRA Scheme to strengthen the Indian textile industry by enabling scale of operations, reduce logistics cost by housing the value chain at one location, attract investment, generate employment, and augment export potential.

[51] In our analysis, in Appendix C, we classified which industries are labour-intensive. Out of these, education, human capital, health, and social activities were labour-intensive. Besides this, across countries, majorly these industries had a more favourable split of their male–female ratio.

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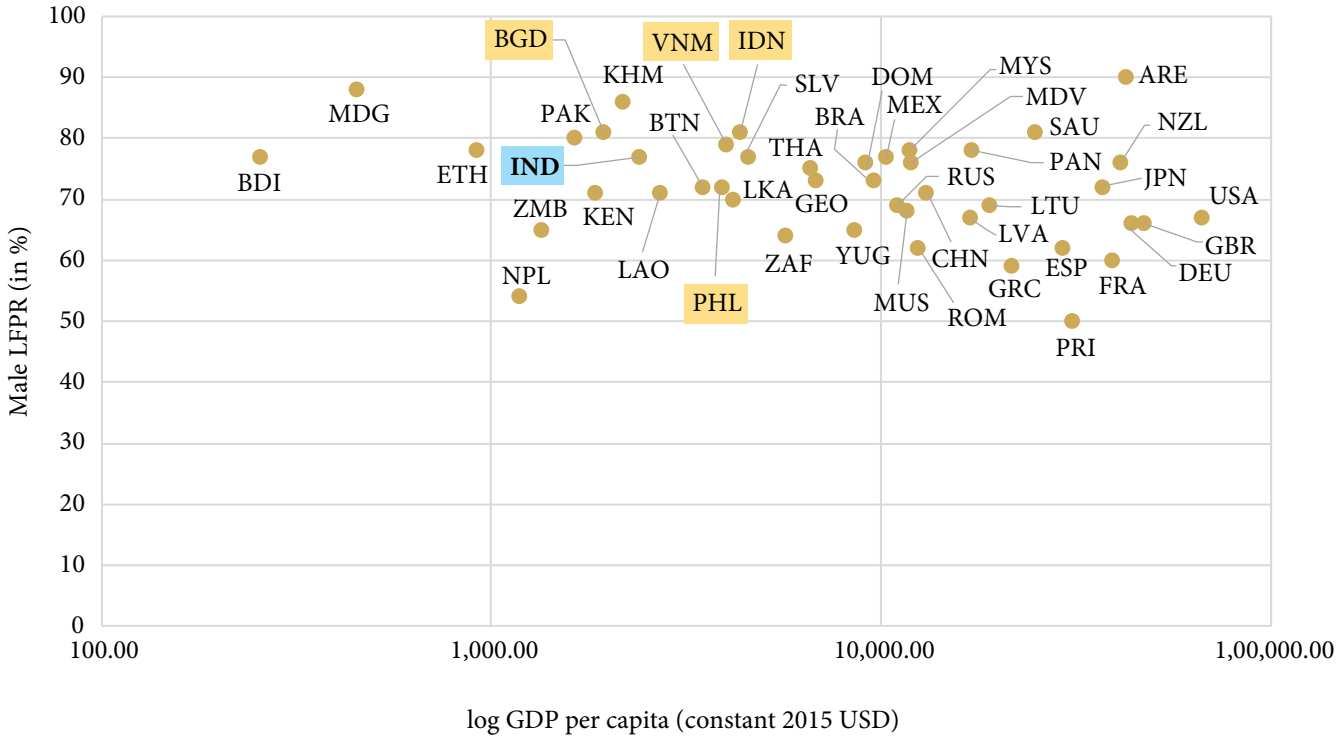
Appendices

Appendix A: Cross-country Male Labour Force Participation Rates

Unlike female LFPR, India is at par with male LFPR globally.

Figure A–1: Cross-country Male Labour Force Participation Rates



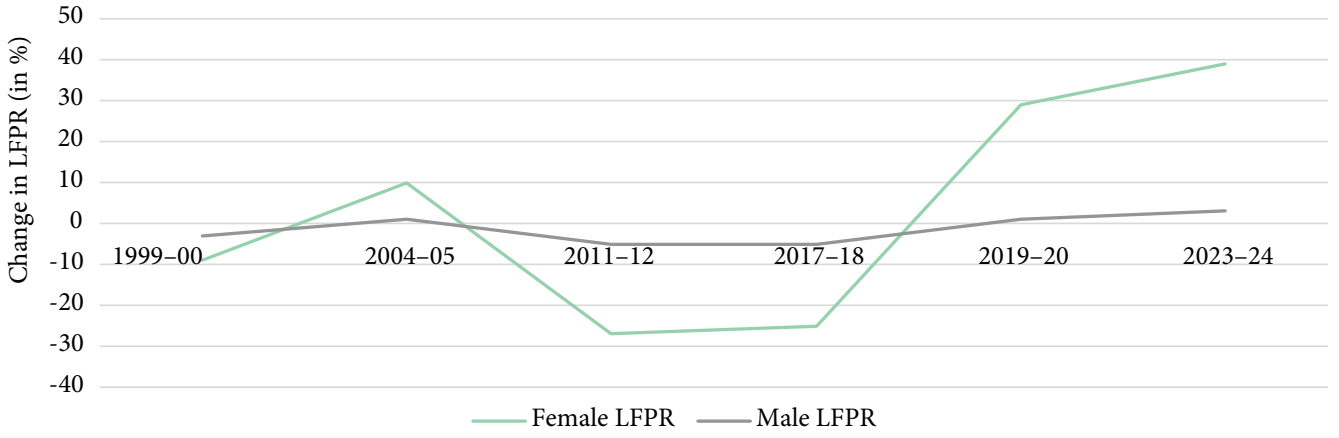
Source: World Bank Group (2024); International Labour Organization (2023).

Note: LFPR = labour force participation rate; GDP = gross domestic product; PPP = purchasing power parity.

Appendix B: Changes in Male and Female Labour Force Participation Rate Over the Years

Fluctuations in female LFPR have been far more volatile than those in male LFPR, which have remained relatively stable. This pattern suggests that female LFPR tends to operate as a residual component in the labour market, adjusting once male labour supply has been absorbed. By this logic, increases in labour demand are more likely to be met through higher female participation rates since males are already engaged in work.

Figure A–2: Changes in Male and Female Labour Force Participation Rate Over the Years



Source: Ministry of Statistics and Programme Implementation (2024); authors' calculation.

Note: LFPR = labour force participation rate.

Appendix C: Labour-intensive Industries

Table A–1: Ratio of Capital Stock at Current Prices and Number of Employed Persons in Each Industry (INR, capital per labourer)

Industry	Capital–Labour Ratio
Agriculture, Hunting, Forestry, and Fishing	2,20,174
Wood and Products of Wood	2,39,484
Construction	2,90,812
Hotels and Restaurants	3,32,991
Trade	3,43,782
Education	3,90,341
Manufacturing, nec*; Recycling	4,34,509
Health and Social Work	6,45,086
Textiles, Textile Products, Leather, and Footwear	6,91,750
Transport and Storage	9,13,890
Electrical and Optical Equipment	9,22,249
Food Products, Beverages, and Tobacco	9,55,553
Other Non-metallic Mineral Products	10,84,616
Financial Services	13,49,868
Machinery, nec.	14,50,861
Rubber and Plastic Products	20,08,561
Pulp, Paper, Paper Products, Printing, and Publishing	22,63,888
Basic Metals and Fabricated Metal Products	26,97,716
Transport Equipment	27,49,392
Chemicals and Chemical Products	32,07,237
Business Service	35,47,440
Mining and Quarrying	35,92,149
Other Services	38,37,567
Public Administration and Defence; Compulsory Social Security	44,86,930
Post and Telecommunication	46,12,722
Electricity, Gas, and Water Supply	16,806,365
Coke, Refined Petroleum Products, and Nuclear Fuel	24,150,432

Source: Reserve Bank of India (2024).

Note: Industries: Wood and Products of Wood; Construction; Textiles, Textile products, leather, and footwear; Transport and Storage; and Food Products, Beverages, and Tobacco are industries which are below the 1,000,000-ratio mark and are low-skill, classifying as low-skill labour-intensive industries.

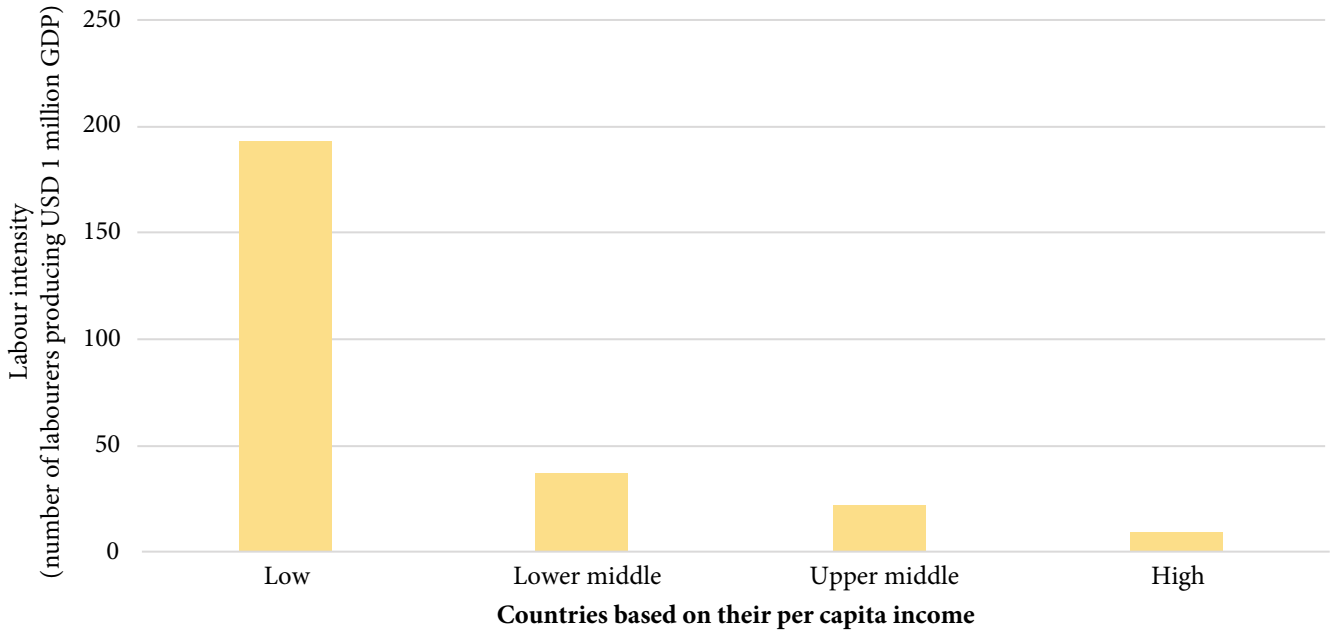
** nec = not elsewhere classified.*

Appendix D: Short- and Long-term Interdependencies

1. Long-term Implications of Economic Development on Female and Labour Intensity

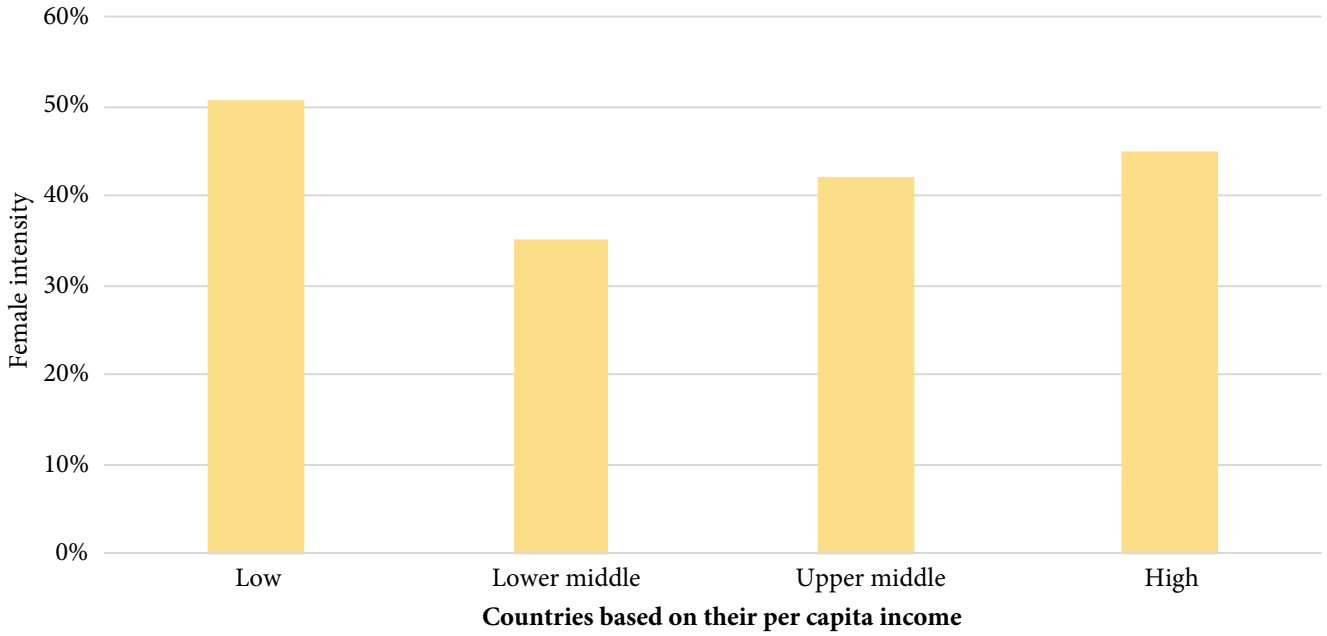
The following figures and tables indicate how female intensity and labour intensity react to economic development in the long term. We can therefore observe predictable shifts in combinations of the two elements with respect to economic development.

Figure A–3: Labour Intensity with Economic Development



Source: Classification from World Bank; authors' calculations.

Figure A–4: Female Intensity with Economic Development



Source: Classification from World Bank; authors' calculations.

2. Short-term Interdependencies Between Labour Intensity and Female Intensity

We cannot predictably infer how these elements will act in the short-term; this largely depends on how the total labour and female labour will increase. There are broadly four case scenarios that can be observed here.

In each of the cases, the increase/decrease occurs in the female labour force and the total labour force.

The following can be inferred from the given cases:

a) Both cases 1 and 2 demonstrate the importance of increasing labour intensity in female LFPR. Female intensity captures supply-led factors, the gendered structure of the labour force, led by social and cultural norms. Notably, even in the absence of fundamental changes in these social and cultural norms, an increase in total labour is associated with a rise in female LFPR. See Appendix B for stagnant male LFPRs.

b) Case 4 represents the end of the spectrum when the increase in labour intensity is minimal and is entirely absorbed by new male entrants. Given the relative rigidity of the male labour rate curve, this scenario is likely to arise in situations where demand for labour increases only minimally.

All these cases, therefore, point to the importance of labour demand in increasing female LFPR.

Table A–2: Case Scenarios

Case	Scenario[52]	ΔLabour Intensity	ΔFemale Intensity	ΔFemale LFPR
1	% Increase in Total Labour = % Increase in Female Labour	Increase	No Change	Increase
2	% Increase in Total Labour > % Increase in Female Labour	Increase	Decrease	Increase
3	% Increase in Total Labour < % Increase in Female Labour	Increase	Increase	Increase
4	% Increase in Total Labour, no Increase in Female Labour	Increase	Decrease	No Change

Source: Authors' calculations based on decomposition.

Note: Δ = change in; LFPR = labour force participation rate.

[52] In these cases, we assume that the GDP and the demographic structure of the female population remain constant.

Appendix E: Cross-country Labour Variables for Demand and Supply

Table A–3: Cross-country Labour Force Participation Rate and Key Variables

Country	Female LFPR (in %)	Female Literacy Rate (in %)	Fertility Rate (total births per woman)	Unpaid Care Work[53] (in %)	Wage Equality[54] (0–1)	Sex Ratio[55]	Women in Parliament[56]	Women in Ministerial Positions[57]	% Share of GDP Labour-intensive Industries[58]	Manufacturing GDP–Employment Elasticity	Services GDP–Employment Elasticity	Stringency of Labour Laws (in %)	Capital-Labour Ratio[59] (USD per labourer)
Jordan	16	92	2.6	23.1	0.713	1.049	0.151	0.286	19	0.717	1.039	10.4	18,999
Egypt	18	73	2.8	22	0.794	1.055	0.383	0.231	20	0.98	0.832	12.1	20,972
Tunisia	27	80	1.8	21.2	0.671	1.051	0.186	0.571	20	0.783	0.628	4.8	–
India	**35**	**75**	**2**	**22.2**	**0.511**	**1.073**	**0.172**	**0.069**	**16**	**0.538**	**0.353**	**14.8**	**11,542**
Turkey	36	94	1.5	18.6	0.601	1.05	0.248	0.063	22	0.274	0.454	6.4	1,93,949
Bangladesh	**42**	**77**	**2.2**	**20.9**	**0.588**	**1.049**	**0.25**	**0.091**	**21**	**0.567**	**0.632**	**3.4**	**5,080**
Burkina Faso	42	36	4.2	16.8	0.701	1.042	0.203	0.111	–	0.145	0.312	–	4,032
Gambia	45	40	4	17.8	0.751	1.032	0.094	0.177	–	2.018	0.056	–	4,688
Mexico	47	94	1.9	28.8	0.522	1.039	1	0.727	18	0.765	0.868	18.3	98,847
Philippines	**50**	**97**	**1.9**	**18.8**	**0.752**	**1.08**	**0.376**	**0.211**	**21**	**0.268**	**0.904**	**6.4**	**6,008**
South Africa	50	91	2.2	15.3	0.549	1.04	0.859	1	11	-0.098	0.743	–	20,761
Georgia	50	100	1.8	16.3	0.74	1.067	0.239	0.2	–	–	–	2	22,016
Colombia	52	96	1.6	4.9	0.591	1.045	0.407	0.727	15	1.082	0.968	22.6	12,292
Indonesia	**53**	**95**	**2.1**	**18.5**	**0.75**	**1.061**	–	**0.261**	**26**	**0.804**	**0.176**	**9.9**	**8,268**
Brazil	53	95	1.6	11.1	0.556	1.045	0.212	0.409	11	0.636	1.204	–	25,120
Ecuador	53	93	1.8	19.3	0.602	1.047	0.758	1	–	0.298	0.558	11.8	33,618
France	53	–	1.7	15.2	0.614	1.049	0.595	0.889	12	0.404	0.434	–	73,926

Spain	53	98	1.1	16.9	0.688	1.064	0.795	1	13	0.679	0.731	–	1,99,990
Kenya	54	78	3.2	16.1	0.649	1.022	0.304	0.467	–	0.714	0.893	10.7	16,787
United Arab Emirates	54	98	1.2	17.5	0.783	1.046	1	0.125	–	0.455	0.744	–	2,32,600
Japan	55	–	1.2	13.4	0.621	1.051	0.115	0.333	13	0.574	0.596	–	93,675
Malaysia	56	95	1.6	18.5	0.719	1.065	0.156	0.08	10	0.067	0.603	9.8	1,33,533
Russia	56	100	1.4	17.8	0.716	1.057	–	–	15	0.372	0.576	6.9	34,805
Germany	57	–	1.4	16.2	0.606	1.056	0.546	0.875	11	0.472	0.534	–	45,954
USA	57	–	1.6	15.4	0.773	1.049	0.412	0.5	9	0.473	0.492	–	75,966
Rwanda	58	77	3.7	14.5	0.781	1.026	1	0.429		0.92	0.769	6.9	3,702
Albania	58	97	1.3	20.8	0.858	1.07	0.555	1	–	0.048	0.313	1.9	19,789
Lao	61	67	2.4	13.8	0.736	1.053	0.282	0.214	14	0.222	0.655	1.5	–
Singapore	63	96	1	14.4	0.783	1.06	0.414	0.167	11	0.346	0.508	–	1,13,170
Australia	63	–	1.5	20.1	0.656	1.056	0.613	0.833	13	0.535	0.577	–	2,26,954
Vietnam	**68**	**95**	**1.9**	**15.7**	**0.715**	**1.109**	**0.441**	**0.125**	**20**	**0.665**	**0.617**	**1.7**	**5,815**
New Zealand	68	–	1.6	17.6	0.704	1.053	0.835	0.647	15	0.411	0.644	–	51,812
Niger	73	26	6.1	16.1	0.719	1.04	–	0.267	–	0.74	0.236	–	2,001
Burundi	78	66	–	14.3	–	1.025	0.618	0.5	–	0.233	0.794	5.7	–

Least to most favourable for female LFPR

Source: International Labour Organization (n.d.); The World Bank Group (2023); The World Bank Group (2023); Hanna and Meisel (2023); World Economic Forum (2023); The World Bank Group (2023); Organisation for Economic Co-operation and Development (2020); Burgi, Hovhannisyan, and Mondragon-Velez (2024); World Bank Group (2024); International Monetary Fund (n.d.).

Note: LFPR = labour force participation rate; GDP = gross domestic product.

[53] Proportion of time spent in unpaid care and domestic work out of 24 hours in a day.
[54] Wage Equality for Similar work index. The wage parity index ranges from 0 to 1 where a value of 1 indicates full wage parity between male and female workers. Values below 1 indicate that female workers earn less than their male counterparts, with the degree of disparity increasing as the index moves away from 1.
[55] Male births per female births.
[56] Females-to-males ratio.
[57] Females-to-males ratio.
[58] Authors' calculations.
[59] Authors' calculations.

Table A–3 uses cross-country data across these variables, which directly impact the demand and supply-side drivers of the decomposition. The evidence from the data strongly supports the argument that India's binding supply- and demand-side factors both contribute to its low female LFPR. Thus, India's low female LFPR is a product of a dual, reinforcing constraint: severe supply-side friction (high unpaid care burden, low literacy, and poor social safety/equity) limits women's willingness and ability to work, while the economy's structural demand-side characteristics (low share of labour-intensive sectors, and burdensome labour laws) limits the overall jobs created. This combination traps India in a low-equilibrium female LFPR that requires simultaneous policy intervention on both the social and structural economic fronts.

Appendix F: Wage Growth in the Periods Between 1993–1994 and 2017–2018

Table A–4: Casual Wage Growth (in %; Annual Nominal Wage)

	Casual Wage			
	Male		Female	
	Rural	Urban	Rural	Urban
1993–1994 to 1999–2000	11	12	11	13
1999–2000 to 2004–2005	4	4	4	3
2004–2005 to 2011–2012	15	13	17	14
2011–2012 to 2017–2018	10	11	9	10

Source: Ministry of Statistics and Programme Implementation (2024); National Sample Survey Office (n.d.).

Table A–5: Regular Wage Growth (in %; Annual Nominal Wage)

	Regular Wage			
	Male		Female	
	Rural	Urban	Rural	Urban
1993–1994 to 1999–2000	14	14	18	15
1999–2000 to 2004–2005	2	3	-2	2
2004–2005 to 2011–12	12	13	13	14
2011–2012 to 2017–2018	6	4	7	5

Source: Ministry of Statistics and Programme Implementation (2024); National Sample Survey Office (n.d.).

About the authors

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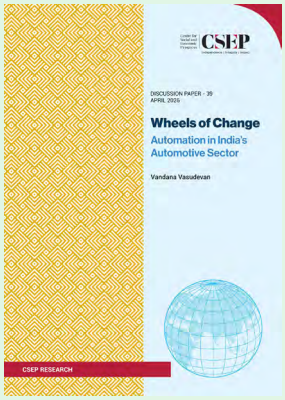
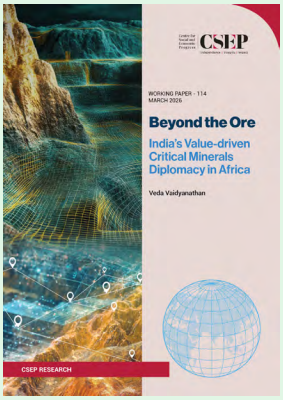
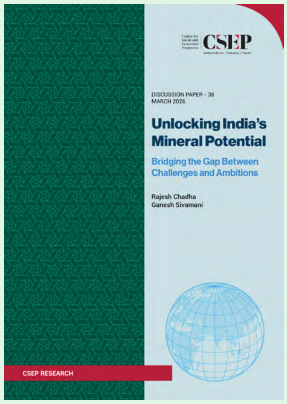
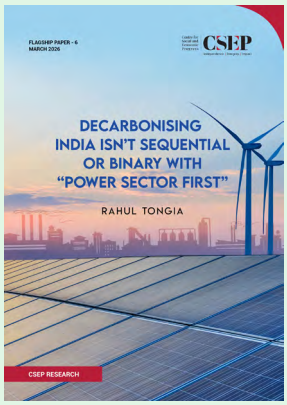
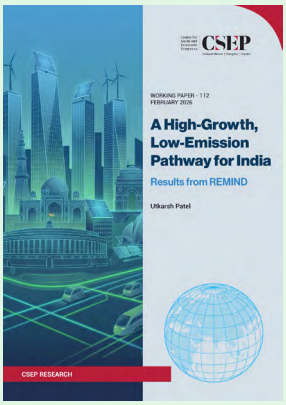
Other publications

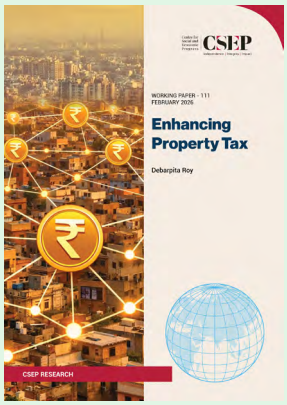


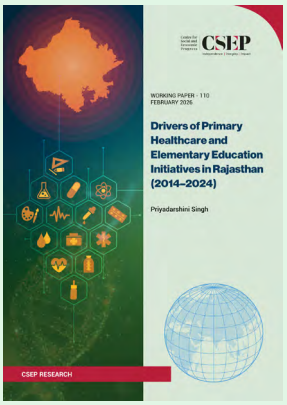


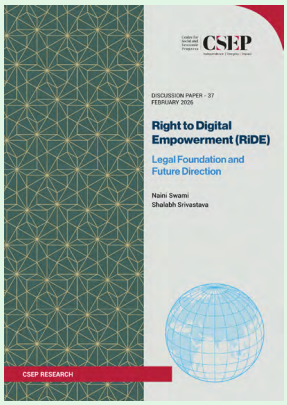


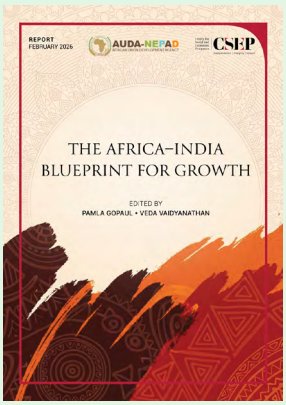


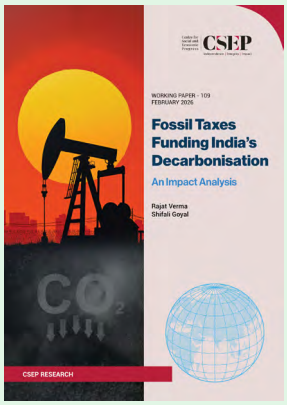


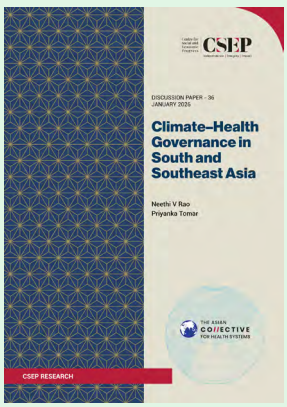


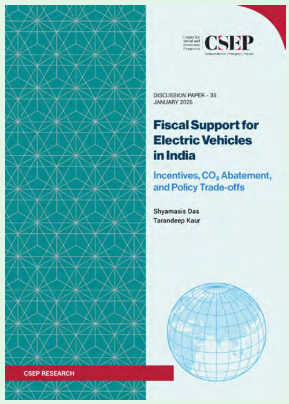


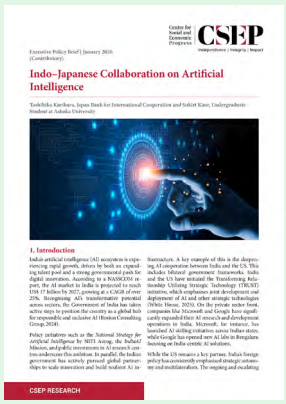


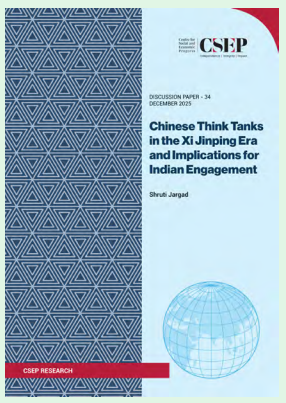












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