# THE/NUDGE Prize

WHAT IS THE FUTURE OF WOMEN IN WORK?

India aims to be a \$30 trillion economy by 2047. Achieving this goal requires a female workforce of ~400 million.

India's **demographic dividend** hinges on women's participation in the

# workforce,

and we still have a long way to go. Can we create a world where women

break gender barriers, harness their innovative spirit & realise their

# economic potential?

Is it possible, that together, we build an equitable society where women

define their own future?

A DISTILLATION SUMMARY

# Executive Summary

India aspires to be a USD 30 Trillion economy by FY47.

Achieving this ambitious goal will require USD 14 Trillion to be contributed by women, which in turn requires ~400 Million women in the workforce, i.e., nearly doubling India's female LFPR\* to ~70% by FY47. In 2023, the LFPR for women was 37%, far below the global average of 47% and starkly lower than the 76.8% for men. At current trajectory, only ~110 Million women are expected to join the labour force by FY47; an additional ~145 Million women need to be brought into the labour force to achieve the goal.

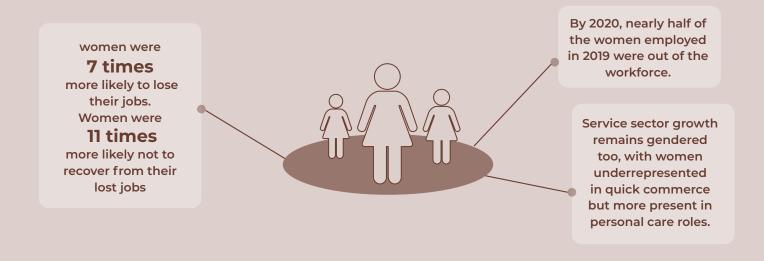
Table 1

India's FLFPR is worse than other top economies as well as other Lower Middle Income countries



Source: (1) International Monetary Fund; (2) World Bank Gender Database

Women are employed in a few gendered, low productivity sectors. In agriculture and manufacturing, they face limited advancement, while in construction, they make up just over 12% of the workforce, earning significantly less than men in unskilled roles. The pandemic pushed many rural women into or back into work due to income loss or job loss by the primary earner, revealing the fragility of female employment-



India's demographic dividend cannot be realised without boosting the participation of women in the workforce, and we have made several strides towards that direction. However, addressing the multifaceted barriers—economic, social, and cultural-requires both urgent action and the patience to achieve large-scale disruption.

Female labour force participation and quality of employment for women in India is a factor of availability of jobs as well as productive entrepreneurship that are enabled by market forces, yet the ecosystem around this problem needs to ensure that there is convergence on building

momentum for equitable market models which are fair and inclined towards sustainable and resilient work options for women looking to join the workforce. Incentive challenges can be a disruptive model of chan to guide markets where they are needed the mos to solve complex problem with unprecedented attention and urgency and stay biassed towards the vulnerable segments the society.

| е          |  |   |  |
|------------|--|---|--|
|            | Activating<br>fractional<br>employment   | Invigorating<br>entrepreneurship<br>avenues   | Breaking<br>barriers to<br>labour markets  |
| nge        | Redefining work for<br>women through<br>fractional<br>employment as a<br>pathway to increased<br>labour force<br>participation | Unlocking the<br>growth potential<br>of women-owned<br>enterprises<br>through digital<br>commerce<br>infrastructure | Targeting<br>bottlenecks that<br>inhibit the supply<br>of women to<br>labour markets |
| st -<br>ns | Platform jobs  | Home based<br>businesses  | Care   |
|            | Digital microwork  | Microfranchises   | Domestic work  |
| s<br>s of  |  | Agri-allied<br>solopreneurs   | Mobility   |
|            |  |   | Digital access   |

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# Introduction

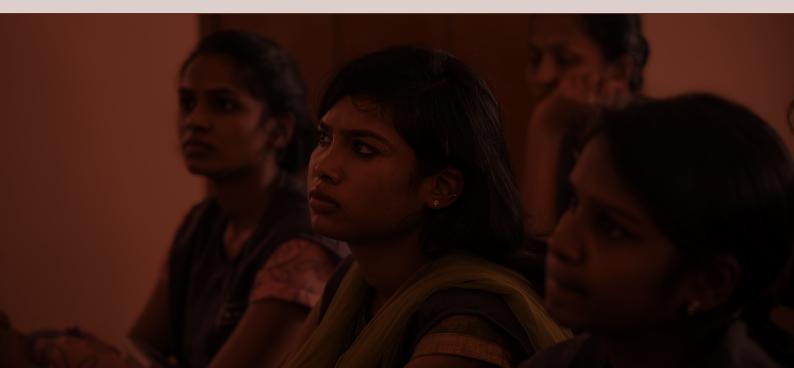
# Women are an essential part of India's economic growth story.

| Magic Bus  | Achieving India's economic goal of USD 30 Tn will require USD 14<br>Tn to be contributed by women, which in turn will require 400 Mn<br>women in the workforce by 2047 |
|------------|--|
| IPO        | Increasing female labour force participation to 50% can<br>boost India's growth rate to 9.9% and raise the country's GDP<br>significantly                              |
| S&P Global | Boosting female employment will be key to harnessing India's<br>demographic dividend   |

However, the participation of women in labour markets is still minimal. Even today, the country's labour force participation rates are much lower compared to India's peers in the global economy as well as many other low to middle income countries.

The participation of women from low income or marginalised communities is a bigger cause for worry as the majority of these women end up either as self employed subsistence entrepreneurs or a highly exploited class of casual labourers.

This report is a distillation of existing sources to outline the trend of labour force participation, the landscape of India's labour market for women, and avenues to grow and sustain labour force participation to meet India's economic ambitions and create a better world for our women.



# 1. Labour Force Participation Rate (LFPR)

# **1.1 Labour Force Participation Rate**

The labour force participation rate (LFPR) is defined as the percentage of persons in the labour force (economically active population) among the working age population (15-64).

Two methods are commonly used to estimate labour force participation rate:



#### Usual status (ps + ss)

1.1 Includes persons who either worked or were seeking / available for work for a relatively long part of the 365 days preceding the date of survey

**1.2.** Also includes those persons from among the remaining population who had worked at least for 30 days during the reference period of 365 days preceding

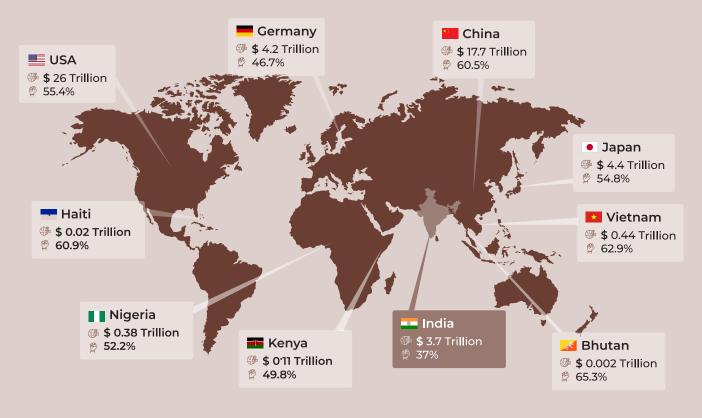
#### Current weekly status (CWS

Gives the average picture of labour force participation in a short period of one **2.1.** week during the survey period, and is derived by considering those who worked for at least 1 hour or were seeking / available for work for at least 1 hour on any day during the 7 days preceding the date of survey

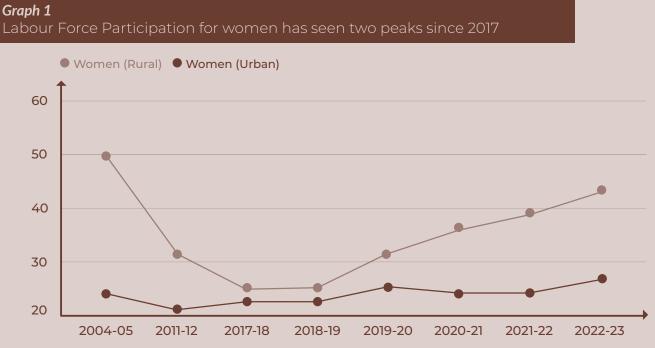


# **1.2 Female Labour Force Participation in India**

India's Women at Work: A Global Comparison



The labour force participation rate (LFPR) is defined as the percentage of persons in the labour force (economically active population) among the working age population (15-64).



Source: Employment/Unemployment Survey for 2004-05 and 2011-12; Periodic Labour Force Survey (Various rounds) for the other years

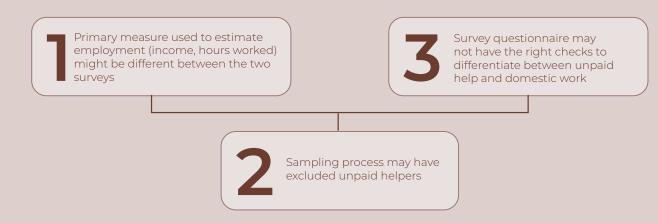
1st Peak (2017-18): Change in measurement included those who were once left out

The first peak was in 2017-18, and is partially explained by a change in measurement.

Labour force participation rates measure both participation in economic work as well as availability of economic work. International standards count economic work as employment for pay or profit; by this standard, an unpaid helper would not be counted as being in the labour force. However, in developing countries like India, a large number of workers are involved in economic work, but are not paid for that work. This is especially true for women, who tend to fall through the cracks of the statistical system and not get counted as workers.

Until 2017-18, the Indian government used the quinquennial Employment-Unemployment Surveys (EUS) to derive estimates on the employment landscape. Since then, it has shifted to the Periodic Labour Force Survey (PLFS), which is an annual survey.

There are a few reasons that may explain why the PLFS contributes to a more accurate measurement of women's work\*.



\* Understanding the measurement delta b/w EUS and PLFS, as well as the measurement bottlenecks will be covered in phase 2 of the study, but may not be a challenge theme.

As incomes fell due to COVID, households all over the country took on additional work to alleviate their distress. While there were cases where men took on multiple jobs to maintain their family's sustenance, the trend was largely driven by women joining or rejoining the workforce. This included women who were previously employed in casual labour that was now unavailable, as well as those who were never / no longer a part of the labour force.

The female labour force participation rate increased, but it wasn't accompanied by an increase in the availability of jobs for women, especially in rural areas. The vast majority of the women who joined the workforce were self employed.

#### Table 2

Share of self employed women has significantly grown

|         | Own account workers<br>& employers |         |         | Helpers in household<br>enterprises |         |         | All self employed |         |         |
|---------|------------------------------------|---------|---------|-------------------------------------|---------|---------|-------------------|---------|---------|
|         | 2020-21                            | 2021-22 | 2022-23 | 2020-21                             | 2021-22 | 2022-23 | 2020-21           | 2021-22 | 2022-23 |
| Rural   | 21.9%                              | 25.1%   | 27.9%   | 42.8%                               | 42.7%   | 43.1%   | 64.8%             | 67.8%   | 71%     |
| Urban   | 26%                                | 26.7%   | 27.6%   | 12.4%                               | 12.7%   | 12.8%   | 38.4%             | 39.4%   | 40.4%   |
| Overall | 22.8%                              | 25.4%   | 27.8%   | 36.6%                               | 36.7%   | 37.5%   | 59.4%             | 62.1%   | 65.3%   |

Source: Periodic Labour Force Survey 2022-23

The vast majority of these women are either their own account workers or unpaid helpers. They operate primarily in agriculture and trade (household enterprises, street vending, etc.) - two sectors that are known for being fallbacks in times of economic distress due to their low barrier of entry.

This type of employment is not aspirational in its current state as incomes are low and underemployment is high. In normal conditions, women who indulge in distress employment are highly likely to exit the workforce once household incomes stabilise, but that looks unlikely today. This means that they are likely to remain in the workforce for the long run, and need support to improve their incomes.



# 1.3 What the LFPR data hides in India

#### Workforce flux

An aspect that remains hidden when one looks at the aggregated summary vs unit data of LFPR is the flux in the workforce. For example, if 100 people form the labour force out of a total population of 1000, then the LFPR for this population would be 10%. If over the course of the year, 50 people leave the labour force while another 50 join, the LFPR will still remain unchanged.

While this flux is a common part of any labour pool, it was especially pronounced for women during COVID.

#### Table 3

A large number of women left the workforce altogether

|                                | Employed in 2020 | Unemployed in 2020 | Oow in 2020 |  |
|--------------------------------|------------------|--------------------|-------------|--|
| Employed in 2019               | 50%              | 2.8%               | 47.2%       |  |
| Unemployed in 2019             | 5.8%             | 24.5%              | 69.6%       |  |
| Out of workforce (Oow) in 2019 | 4.3%             | 3.3%               | 92.5%       |  |

Source: "State of Working India 2021", Azim Premji University



Almost half the women employed in 2019 were out of the labour force altogether in 2020. Death accounted for some of these women, but for the most part it highlights how fragile the landscape of female employment is in the face of shocks.

#### Productivity

The increase in female LFPR may not have corresponded to an increase in productivity for women.

#### Table 4

Incomes of self employed women are 40% that of menduring

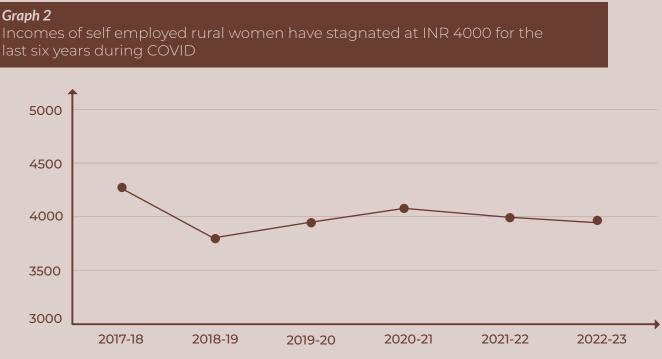
|       | Regular wage<br>(INR / month) | Self employed<br>(INR / month) | Casual wage<br>(INR / month) |
|-------|-------------------------------|--------------------------------|------------------------------|
| Women | 13666                         | 4809                           | 230                          |
| Men   | 17910                         | 12099                          | 358                          |

Source: "State of Working India 2023", Azim Premji University

Casual work (INR 230 per day) pays women more on average compared to self employment (INR 160 per day), while the reverse is true for men. This means that the shift to self employment post the pandemic would have led to a decrease in incomes for female casual labourers. An argument that can be made against this point is that income gains from casual labour are more unpredictable compared to those for self employed women. A casual labourer would have to work 20 days or more per month to gain the equivalent income from self employment.

# However, since the shift to self employment was largely distress led, it's highly likely that the incomes gained by these women are much lower than the average.

Female solopreneurs who weren't part of the workforce before the pandemic would have seen an increase in their own incomes, but are yet to see growth.



Source: "State of Working India 2023", Azim Premji University

An additional factor to consider is time-based productivity. Sectors like agriculture and trade are known for employing far more people than needed - leading to a high degree of underemployment / disguised employment. While there are no hard figures to adequately show this trend, we can state with a reasonable degree of confidence that the situation would have only worsened during the pandemic.



### **1.4 Correlation of FLFPR with individual and household** characteristics

Labour force participation can both go hand in hand and operate independently of individual and household characteristics like literacy, skilling and income. They may operate differently based on the region (urban vs rural) and paint a picture of the structural and social barriers to employment.

They also have some commonly held myths around them, which get busted when one looks at the data.

#### Correlation between employment and literacy + skilling

Global evidence highlights the importance of literacy and skilling in boosting female participation in the labour force.

However, this positive relationship between literacy and employment is largely seen in urban India.

#### Table 5

Education levels are not a prerequisite for employment in rural India

|       | Not<br>literate | Literate<br>& up to<br>primary | Middle | Secondary | Higher<br>Secondary | Diploma /<br>certificate<br>course | Graduate | Post-<br>graduate<br>& above |
|-------|-----------------|--------------------------------|--------|-----------|---------------------|------------------------------------|----------|------------------------------|
| Rural | 21.9%           | 25.1%                          | 27.9%  | 42.8%     | 42.7%               | 43.1%                              | 64.8%    | 67.8%                        |
| Urban | 26%             | 26.7%                          | 27.6%  | 12.4%     | 12.7%               | 12.8%                              | 38.4%    | 39.4%                        |

Source: "State of Working India 2023", Azim Premji University

Employment for women who have received up to higher secondary education is higher in rural vs urban areas. One potential reason behind this could be that a large majority of jobs in rural areas don't need education as a prerequisite.

On the other hand, the urban job landscape is dominated by the service sector which may have a comparatively higher barrier for women that have not gone beyond higher secondary education.

However, the employment rates for urban men across literacy levels are almost similar to their rural counterparts. This might mean that there may be opportunities for employment in urban areas even for those who haven't crossed higher secondary education, but those opportunities are largely unavailable for women.

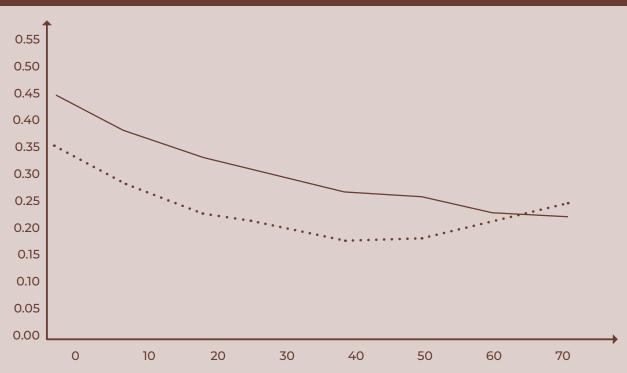
It is expected that skilling would have a similar correlation, but the number of people who have been skilled are far too low to draw any meaningful conclusions - only 2.4% of India's overall workforce was formally trained in 2022-23. Government programs around skilling have been introduced in the past decade, but have barely made a dent as the statistic was 2.3% in 2012-13.

#### Correlation between employment and incomes

Married women are less likely to work as their husband's income increases.



Employment for married women falls when their husband's earnings increase



Source: PLFS 2021-22. The marginal effects for each level of income are shown along with the confidence bands.



A common gender norm is the "male breadwinner" norm, i.e. husbands are considered the primary earners with wives contributing to household income only if necessary.

The PLFS data shows that in households where the husband's earnings are high, the probability of the wife being employed is low, controlling for individual and household factors.

The fall slows down as husband's incomes increase in rural India, while for urban areas, there is a reversal beyond a certain level of income. As husband's earnings keep rising, from approximately ₹40,000 per month onwards, there is an increased likelihood of wives being employed. This U-shaped pattern could result from a change in norms with rising incomes or it could also be due to the fact that such husbands are matched with higher educated wives who have preferences as well as opportunities to access better paid work.

#### Correlation between employment and family structure

The effect of the family structure on female employment cannot be ignored either.

Compared to households where there is no mother-in-law present, married women living in households where the mother-in-law is present but not employed are 20% (rural) to 30% (urban) less likely to be employed. However, if the mother-in-law is employed herself, daughters-in-law are 50% (rural) to 70% (urban) more likely to be employed.

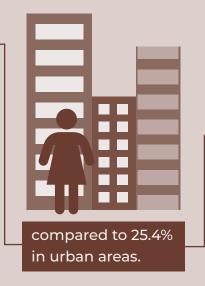


# 2. India's female labour force participation landscape

### 2.1 Rural vs Urban India

41.5% of women in rural India were part of the labour force in 2022-23,





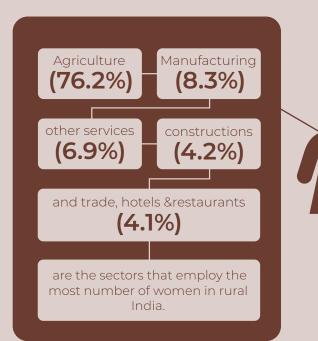
In absolute terms, this corresponds to a labour force of ~140 million women in rural regions vs ~ 50 million women in urban regions.

## **Rural India**

#### Table 6

Agriculture is the largest employer for rural women

|                                     | 2020-21      | 2021-22 | 2022-23 |
|-------------------------------------|--------------|---------|---------|
| Agriculture                         | 75.4%        | 75.9%   | 76.2%   |
| Mining & quarrying                  | 0.1%         | 0.1%    | 0.1%    |
| Manufacturing                       | <b>7.</b> 4% | 7.9%    | 8.3%    |
| Electricity, water, etc.            | 0.1%         | 0.1%    | 0.1%    |
| Construction                        | 5.9%         | 5.3%    | 4.2%    |
| Trade, hotel & restaurant           | 3.5%         | 3.7%    | 4.1%    |
| Transport, storage & communications | 0.3%         | 0.3%    | 0.2%    |
| Other services                      | 7.5%         | 6.8%    | 6.9%    |



Since 2020, the share of employment has grown in agriculture, manufacturing and trade, while the share of construction and other services has fallen.

#### Table 7

Sectors that have seen growth also have high degrees of self employment

|                          |                          | Self employed                         |                         |                 |                |
|--------------------------|--------------------------|---------------------------------------|-------------------------|-----------------|----------------|
|                          | Own<br>account<br>worker | Helpers in<br>household<br>enterprise | All<br>self<br>employed | Regular<br>wage | Casual<br>wage |
| Agriculture              | 26.4%                    | 51.7%                                 | 78.2%                   | 0.5%            | 21.3%          |
| Mining & quarrying       | 5.0%                     | 1.2%                                  | 6.2%                    | 7.3%            | 86.5%          |
| Manufacturing            | <b>65.7</b> %            | 1 <b>7.</b> 1%                        | 82.8%                   | 11.4%           | 5.8%           |
| Electricity, water, etc. | 12.4%                    | 5.0%                                  | 17.4%                   | 65.4%           | 17.2%          |
| Construction             | 0.2%                     | 0.3%                                  | 0.5%                    | 2.6%            | 96.9%          |
| Trade                    | 38.1%                    | 51.6%                                 | 89.8%                   | 9.8%            | 0.4%           |
| Accommodation & food     | 29.3%                    | 47.4%                                 | 76.7%                   | 15.9%           | 7.3%           |
| Transport                | 9.5%                     | 31.2%                                 | 40.6%                   | 59.4%           | 0.4%           |
| Other services           | 11.3%                    | <b>1.7</b> %                          | 13.0%                   | 84.8%           | 2.2%           |

Source: Periodic Labour Force Survey 2022-23

The share of self employed workers is especially high in the three growth sectors, i.e. agriculture (78.2%), manufacturing (82.8%) and trade, hotels & restaurants (89.8%, 76.7%). This further validates the point made in the previous section about the shift to self employment to offset the drop in household incomes.

Additionally, the drop in sectors that have a higher degree of regular or casual wage workers reflects not only the lack of availability of new jobs, but also a net decrease in these sectors. The share of men however, has grown from 15.6% to 19% in construction, highlighting the additional vulnerability faced by women in male dominated sectors.

## Urban India

#### Table 8

Urban job landscape for women is dominated by the service sector

|                                     | 2020-21 | 2021-22 | 2022-23       |
|-------------------------------------|---------|---------|---------------|
| Agriculture                         | 10.4%   | 11.1%   | <b>11.7</b> % |
| Mining & quarrying                  | 0.1%    | 0.1%    | 0.1%          |
| Manufacturing                       | 23.9%   | 24.3%   | 23.0%         |
| Electricity, water, etc.            | 0.6%    | 0.5%    | 0.5%          |
| Construction                        | 4.4%    | 3.9%    | 3.1%          |
| Trade, hotel & restaurant           | 16.2%   | 14.8%   | 15.2%         |
| Transport, storage & communications | 3.7%    | 4.6%    | 5.5%          |
| Other services                      | 41.6%   | 40.7%   | 40.1%         |

Source: Periodic Labour Force Survey 2022-23

Other services (40.1%), manufacturing (23.9%), and trade, hotel & restaurant (15.2%) are the largest employers of urban women. The share of employment in all three sectors has reduced from 2020-21, while agriculture and transport, storage & communications have seen the greatest increase.

There are two scenarios that can explain this trend - a) either new jobs have been created in transport & communication, or b) women from the top 3 sectors left urban India altogether.

The argument for the first scenario focuses on the rise of gig work in urban India. While the lockdown restrictions at the start of the pandemic slowed the business of operators like **Swiggy or Zomato**, it also led to the inception of segments like e-grocery that have continued to contribute to the growth of these organisations.

It is expected that the platform economy will grow by 2-3x over the next 6-7 years, but it is unclear whether this growth will lead to a sharp increase in female employment. The roles in the platform economy are also gendered, and women are mostly represented in domains like personal care, and not logistics.

#### Table 9

Women are highly underrepresented in the major domains of the platform economy

|               | Total # of gig workers | Female gig workers |
|---------------|------------------------|--------------------|
| Swiggy        | 220000+                | 1000+              |
| Zomato        | 240000+                | 2000+              |
| Urban Company | 45000+                 | 15000+             |

Source: Company websites, Market research reports

On the other hand, sectors like manufacturing, trade and construction are known for having a high proportion of migrant labour. The exodus of migrant workers from urban India in the early days of the pandemic was highly publicised and this trend is yet to reverse. Given this, it is likely that the second scenario is more true.

#### **Table 10** Participation of women from tier 2 / 3 cities has grown on job platforms

|      | Total applications from tier 2/3 | Female applications | % of total |
|------|----------------------------------|---------------------|------------|
| 2022 | 2.7 crore                        | 0.87 crore          | 32.2%      |
| 2023 | 3.2 crore                        | 1 crore             | 31.2%      |

Source: Apna.co

Lastly, while there is no hard data delineating the labour force participation rate between tier 1, 2 and 3 cities, the job market in tier 2 and 3 cities has experienced substantial growth, both in terms of quantity and diversity of roles and industries. Women jobseekers from these regions are in high demand for positions in the BFSI, telecom and e-commerce sectors.

## 2.2 Employment

Employment in large, traditional sectors has a high degree of uncertainty, low productivity and almost no pathways of growth

3.

Growing middle class is increasing the demand for service sector employment across the country themes define

India's female employment landscape. Rural women are resorting to self employment due to the economic distress caused by COVID 2.

4.

The excluded and unaccounted: women who earn, but are not counted among the labour force

# 2.2.1 Employment in large, traditional sectors has a high degree of uncertainty, low productivity and almost no pathways of growth

Agriculture is still the prime employer of women in India, but this is by no means an intended outcome. As India's GDP grew, it was expected that the employment in agriculture would reduce as more opportunities came up in manufacturing and services.

However, this did not happen. Between 1991 to 2013, the number of agricultural workers who identify as main cultivators came down by 15 million, but this wasn't accompanied by a corresponding increase in non agricultural sectors. If anything, this trend reflected the growing informalisation of the sector as many of the 15 million became agricultural labourers instead.

Land is one of the key factors responsible for this. With each passing generation, land holdings become more and more fragmented as they get divided during inheritance. In 1970, the average farm plot size was 2.25 hectares, which fell to 1.08 hectares in 2015-16. These plot sizes are often too small to achieve economies of scale and adopt new technical inputs, which limits the productivity and growth of farms.

The relationship between women and land ownership is even more precarious. A study conducted in 2020 discovered that women constitute only 14% of all land owners, owning 10% of plots and 11% of agricultural land. However, this distribution isn't uniform and is influenced by social norms. The vast number of female landowners are found in the southern and western regions of India.

Caste and marital status also serve as key determinants of land ownership. Women from OBCs have a much lower proportion of land ownership compared to those from forward castes, while this distribution is much more uniform for men. Similarly, almost half of all women landowners are widowed, relative to 4% of men owners.

Given this trend, it is far more likely that women in agriculture serve as labourers and not cultivators, whose number has continued to grow.

|                    | Agricultural share (%) |        | Self employment share (%) |        |
|--------------------|------------------------|--------|---------------------------|--------|
|                    | Male                   | Female | Male                      | Female |
| April to June 2018 | 36.8                   | 47.9   | 51.9                      | 50.6   |
| April to June 2019 | 33.9                   | 44.2   | 50.5                      | 50.2   |
| April to June 2020 | 42.3                   | 57.7   | 58.2                      | 57.8   |
| April to June 2021 | 38.5                   | 58.2   | 55.2                      | 56.7   |
| April to June 2022 | 34.3                   | 55     | 52.1                      | 61     |

# Table 11 Share of women in agriculture has grown in the years following the pandemic

Source: Periodic Labour Force Survey 2022-23

Employment as agricultural labour is not guaranteed throughout the year due to the seasonal nature of agriculture, and is also plagued with a high degree of underemployment or disguised unemployment.

Manufacturing was expected to absorb a significant portion of this workforce. This trend has been seen in other lower-middle income (developing) countries like China, where the village enterprise boom of the 1980s saw a significant increase in the participation of women. However, the same has not happened in India and there are a few aspects of this that need to be understood.

#### Table 12

Female employment is concentrated in a few manufacturing sectors

|   | % women |
|---|---------|
| Wearing apparel                                   | 48%     |
| Textiles  | 22%     |
| Food products                                     | 25%     |
| Торассо   | 73%     |
| Leather and related                               | 37%     |
| Chemical and chemical products                    | 16%     |
| Rubber and plastics                               | 12%     |
| Pharmaceuticals, medicinal chemical and botanical | 15%     |
| Electrical equipment                              | 14%     |
| Computer, electricals and opticals                | 11%     |
| Motor vehicles, trailers and semi trailers        | 6%      |
| Paper and paper products                          | 12%     |

Source: Periodic Labour Force Survey 2022-23

The first is the gendered nature of employment across manufacturing subsectors. Women largely participate in labour intensive industries like textiles, apparel, food products, tobacco, and leather and leather related products. Even within this, it is the southern states where manufacturing employment is driven by women while the manufacturing base in the north is largely dominated by migrant male labour.

India's manufacturing policy has largely focused on capital intensive industries post liberalisation. The country's worker-to-fixed-capital ratio declined from 10.9 in 1990-91 to 3.2 in 2009-10. An increasing bias towards capital intensive production has also skewed India's export basket. The share of capital intensive products in India's export basket more than doubled from about 25% in 1993 to nearly 54% in 2010 while the share of unskilled labour-intensive products halved from 30% to 15%. India's labour-intensive export sectors such as apparels, marine products, plastics, and gems and jewellery have experienced a decline in global market share during the last five years. Recent policy measures like PLIs have also focused far more on capital-intensive industries and unless the same amount of focus is placed on the labour-intensive segments, their performance, and subsequently the growth of women employed in these sectors will continue to flag.

The capital intensive push might have a negative impact on the performance of labour intensive industries, but the impact on overall workforce participation may end up being positive.

Deloitte's Blue Collar Workforce Trends Report 2023 shows that the current female blue collar workforce participation is at 8%, a rise from <2% at the start of the 2000s. High degree of automation, growth in skilled talent requirement and availability of premium pay have enabled growth of women in the life sciences, automotive, and engineering sectors, and the numbers are expected to grow over the next decade as major employers vie for 30-50% representation. However, anecdotal evidence suggests that while women are seeing increased representation on the shop floor, the proportion of women who remain beyond the age of 25 is still very low. Pathways for promotion to supervisory roles and for growing incomes beyond the entry level figures are at a nascent stage of being outlined, which creates a situation where exits become common at that age threshold.

A second aspect that must be considered is unorganised manufacturing. A larger proportion of manufacturing in India is unorganised and employs a significant number of women. In 2015-16, women-headed firms accounted for 45% of enterprises in unorganised manufacturing, 95% of which were operating from home. Home-based workers were only recognised as a special category of workers in 2007, and the legislation and policy support for the space is still minimal.

These household enterprises form a significant proportion of the unorganised sector, which usually falls outside the ambit of labour legislation and is characterised by a lack of social security. This means that along with their lower productivity, they also lack the protections necessary for a resilient livelihood.

Construction is the last sector covered in this section. While it isn't as large an employer of women compared to agriculture or manufacturing, it is commonly recognised as an absorber of talent from low productive sectors like agriculture.

However, this fact is more true for men than women and the employment landscape is skewed towards them. Women account for a little more than 12% of the overall construction workforce and earn 30-40% less than their male counterparts.

The work done by women in construction is mostly unskilled / low skilled and highly labour intensive. 80% or more of the employed women are engaged in activities such as carrying bricks and sand, mixing cement, watering / curing or surface levelling. Skilled activities like masonry are highly male dominated and rarely involve women, outside of them functioning as assistants for skilled male masons.

Seasonality also plays a significant role in the job market for women in the construction sector. Women lag behind and get comparatively less percentage of work all through the year. The gap between male and female workers who are engaged in construction work in a month, ranges from 10% to 40% over the span of a year. While it is highest in October and November, the gap is However, this trend is largely caused by the reverse migration of men during harvest seasons or festivals rather than an influx of women.

The prevalence of seasonality, underemployment and low productivity in these sectors negatively impacts the employment landscape for the vast majority of women in India.

# 2.2.2 Rural women are resorting to self employment due to the economic distress created by COVID

COVID shocked India's employment landscape and had a disproportionate impact on poorer households, especially from rural India. Migrant labour suffered as economic activities were curtailed in the initial months of the lockdown. Even though agricultural activities were exempted from lockdown restrictions, the agricultural value chain faced large-scale disruptions in the initial months, which was also to the detriment of rural households.

#### Table 13

Incomes of rural workers fell during the first six months of the pandemic

|               | February 2020 |               | August-September 2020 |               |
|---------------|---------------|---------------|-----------------------|---------------|
|               | Mean income   | % zero income | Mean income           | % zero income |
| Self employed | 8049          | 18            | 5140                  | 44            |
| Regular wage  | 10167         | 1             | 9986                  | 42            |
| Casual wage   | 5242          | 2.1           | 4761                  | 29            |

Source: Periodic Labour Force Survey 2022-23

Self employed workers saw their incomes fall by ~36%, while the share of workers earning zero income rose sharply across all employment categories. Four years hence, the situation is yet to improve.

#### Table 14

Incomes of rural households are yet to return to pre-COVID levels

|  | January 2020 | January 2024 |
|--|--------------|--------------|
| Monthly average income (in INR)        | 14098        | 10508        |
| Monthly average spend on food (in INR) | 1518         | 1700         |

Source: Periodic Labour Force Survey 2022-23

Rural households have witnessed a 25% drop in their monthly incomes as per a survey conducted by Reuters. On the other hand, their expenditure on essentials like food has continued to rise.

In order to support their households, a large number of women entered or reentered the workforce in the years after the pandemic. The India Working Survey, administered by the Azim Premji University, asked 'new' female entrants into the workforce the reasons behind their entry into paid work. For more than half the respondents, the responses indicate distress-driven entry. Joining paid work was imperative as household incomes had fallen or the husband / primary earner had lost their jobs or could not operate their business.

#### Table 15

Self employment absorbed the majority of new entrants

|  | 2017-18 | 2021-22      |
|--|---------|--------------|
| Selfemployed   | 13.6%   | 24.2%        |
| Regular wage   | 2.5%    | 2.9%         |
| Casual labour  | 7.5%    | <b>8.7</b> % |
| Unemployed   | 0.9%    | 0.8%         |
| Attended domestic duties only  | 40.8%   | 28.3%        |
| Attended to domestic duties, and also engaged in free collection of goods, sewing, tailoring, etc. for household use | 17.0%   | 17.4%        |
| Attended educational institutions  | 10.3%   | 10.9%        |
| Rentiers, pensioners, remittance recipients  | 4.4%    | 4.6%         |
| Not working due to disability  | 1.1%    | 1.0%         |
| Others (includes beggars, prostitutes, etc.)   | 1.8%    | 1.3%         |

Source: Periodic Labour Force Survey 2021-22

Sectors like agriculture, manufacturing and trade have seen the greatest increase in self employment since 2017-18, both for own account workers as well as unpaid helpers. Additionally, the volume of regular and casual labour across these sectors has also fallen, reflecting the lack of availability of jobs. Given that, it can be inferred that some of these women were also absorbed by self employment across the aforementioned sectors.

Almost 2/3rd of these entrants into self employment were unpaid helpers. Between 2019 to 2021, almost 21 mn women became unpaid helpers. This was almost 3 times the number of men, reflecting the unequal division of ownership between men and women in a household.

The remaining additions to self employment are own account workers, i.e. solopreneurs. This includes farmers, women in household enterprises or street vendors. This is the reality of most women-owned enterprises in India. Only 17% have employed workers, and of these, over 95% employ less than six workers.

This lack of growth is also reflected in their earnings. In general, women-owned enterprises largely have annual turnovers under INR 1 lakh, while most men-owned enterprises have annual turnovers up to INR 10 lakhs. The pandemic has also resulted in a drop in the incomes of self employed women as earnings in 2022 were almost 85% of the numbers pre-pandemic.

Time use surveys conducted between 1998 and 2019, showed that minutes spent in paid work for men has fallen and men have compensated for this decline in paid work hours with additional unpaid work hours. Which is why, while economic recovery could force a return to the status quo, the trend of rural women entering self employment will continue to be essential due to the dwindling job landscape for men.

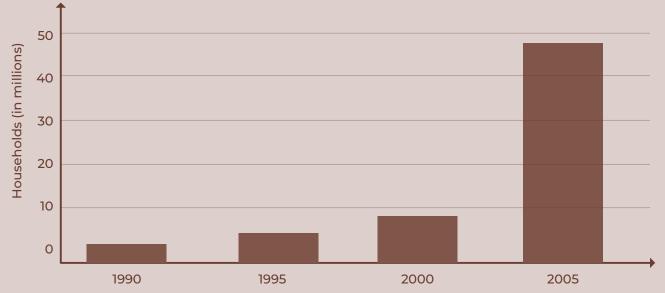
# 2.2.3 Growing middle class is increasing the demand for service sector employment across the country

The middle classes of all countries have been the key drivers of the global economy in the last century. During the past several decades, world economic growth has occurred, mostly because of increased consumption in the middle classes of the United States, Europe, and other advanced countries. This class has been considered a thriving and vibrant catalyst for economic growth. It provides a strong base that drives productive investment and is a critical factor in encouraging other social developments that also stimulate growth and foster expansion of elements that contribute to a healthy society.

In 1991, after an economic downturn in the markets, the Indian government, ruled by the Indian Congress Party at the time, began opening up markets and launched an economic liberalisation program. The substantial pace of growth of this class was primarily attributable to the incentivization for private capital investment and opening the economy to foreign investments. The total number of people in the middle class approximated thirty million in the 1990s, or less than 1 percent of the population.

#### Graph 4

Number of households with disposable income > USD 10K increased twenty fold from 1990-2015



Source: Euromonitor International national statistics/UN on the World Economic Forum



Consequently, consumer spending is expected to increase from USD 1.9 trillion in 2021 to USD 5.2 trillion by 2031. And this growth is expected to be inclusive, with rural regions expected to drive 55% of the incremental consumption in 2031.

Analysis of consumption patterns suggest that quick commerce will be the key driver of growth for metros and tier 1 cities, along with other aspects of the platform economy such as personal and at home care. Tier 2 and 3 cities are expected to see a growth in sectors like BFSI, IT, retail and education, while health and financial inclusion is expected to drive growth in rural India. Food will be a growth sector across all regions.

Growth in employment due to these trends is already being seen across the country. Jobs in the platform economy are expected to grow by 3x between 2020-2030, employing over 20 million people. Similarly, the demand for entry-level positions in the Banking, Financial Services, and Insurance (BFSI) sector has seen a substantial increase of 24% in 2024 compared to the previous year. This expansion was predominantly in the Tier 2 and Tier 3 segments, which saw increases of 23% and 37%, respectively.

#### Table 16

Demand for entry-level jobs is rising in tier 2 and 3 cities

|        | % delta (2021 to 2022) | % delta (2022 to 2023) |
|--------|------------------------|------------------------|
| Tier 1 | Tier 1 5% 9%           |                        |
| Tier 2 | 9%                     | 23%                    |
| Tier 3 | 2%                     | 37%                    |

Source: Quess Corp

This growth story, however, has several aspects that need to be addressed to make it far more equitable for women. The first is the growth story itself. The actual size of the middle class is still widely debated. The World Bank defines the middle class segment as those who earn at least USD 10 (PPP) each day. Focusing on this definition helps us identify a small segment of the population who is nevertheless quite poor. The Pew Research Centre calculates that those in the USD 10-20 PPP income bracket in India equal 66 million people, or four per cent of the population. In comparison, China counts 493 million people in this bracket. Thus, this segment is not only small, but it is also still relatively poor in a comparative perspective, even though it is economically secure enough not to fear descending back into poverty.

This is reflected in consumer transactions as well. 6.5% of users are responsible for 44% of all transactions on UPI apps, while 5% of Zomato's users are responsible for a third of their orders. According to these trends, while middle India is growing, it is still not at par with the global middle class.

The second aspect is that employment in services is also gendered. Women constitute less than 1% of all jobs in the hyperlocal / quick commerce segment, which is the largest employer in the platform economy. However, their presence in sectors like personal care (beauty) is fairly high.

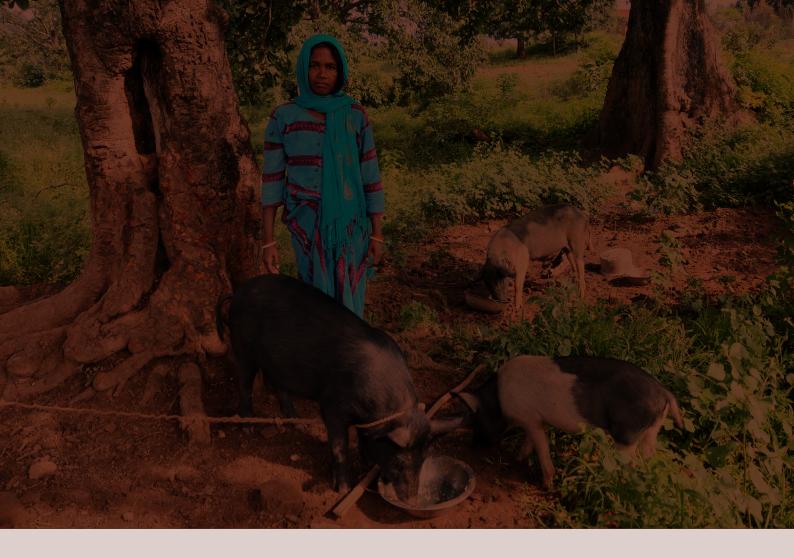
#### Table 17

Employment in the service sector is also highly gendered

|   | % women |
|---|---------|
| Retail & trade                                    | 17.02%  |
| Transport & storage                               | 1.63%   |
| Accommodation & food services                     | 17.24%  |
| Information & communication                       | 21.05%  |
| Financial & insurance                             | 25.19%  |
| Real estate                                       | 8.26%   |
| Professional, scientific and technical activities | 16.04%  |
| Administrative and support services               | 12.15%  |
| Education   | 51.07%  |
| Healthcare  | 52.17%  |
| Arts, entertainment and recreation                | 7.28%   |
| Other services (repair, personal services, etc.)  | 17.91%  |

Source: Periodic Labour Force Survey 2022-23

In summary, while there is potential for growth due to increasing demand for services, activating this space will require a significant amount of effort.



# 2.2.4 The excluded and unaccounted: women who earn, but are not counted among the labour force

Almost 1.5% of all women in India fall into the category of exclusions, i.e. they perform activities that earn an income, but aren't included as part of the labour force. This includes women who are engaged in "illegal" occupations such as sex work, those engaged in other non-economic activities such as begging, or those who exist in remote populations.

### Sex workers

India has one of the largest commercial sex industries in the world. According to various estimates, sex work in India is a USD 8.2 billion industry and it is growing fast. The National AIDS Control Organization (NACO) estimates over 8 lakh women sex workers in India, but unofficial statistics report that over 30 lakh women are actually involved in the industry.

The unrecognised nature of this work does little to alleviate illegal trafficking, worker exploitation and poor health and safety outcomes for sex workers. This exploitation is not only carried out by those in the industry, but also by law enforcement agencies. In 2022, a three-judge bench of the Supreme Court issued ten guidelines that recognised sex work as a profession, and said that sex workers are entitled to dignity and equal protection under the law. Under these guidelines, sex workers cannot be arrested on the basis of their profession, but they are temporary and at risk of being overruled.



### Begging

As per the 2011 census, around 200K women in India rely on begging as a means of earning incomes, but the actual numbers are estimated to be much higher. Begging isn't regarded as an economic activity, and for good reason. It does not result in the production or distribution of goods or services, and hence, does not meet the criteria.

It does, however, put the food on the table for many of the urban destitute. While estimates vary across cities, on average women can earn between INR 150 to 400 through begging, which often makes it a viable alternative for women who have no other source of income. This isn't universally true - women who beg are also known to partake in other economic activities, for e.g. as labour on construction sites, but these jobs are highly unpredictable.

Studies conducted on beggars have shown that begging is often taken up by women from minorities like Muslims who constitute around 25% of the overall number of beggars. Begging also becomes a viable source of income for women whose husbands are dead or absent, making them the sole earners of the household, or for women who are disabled and unable to access jobs. These trends highlight how begging is often an outcome of unequal or absent job access.

While begging isn't a federal offence, around 20 states in India have their own laws against begging in public places. In addition, beggars are also displaced and relocated from metropolitan centres as part of urban beautification measures, especially when there are major events to be hosted. These measures do not tackle the root cause behind begging and place undue power in the hands of law enforcement agencies that leads to exploitation.

In 2022, the Ministry of Social Justice and Empowerment launched the Support for Marginalised Individuals for Livelihood and Enterprise (SMILE) scheme to provide welfare and rehabilitation to people engaged in the act of begging. However, the scheme mostly focuses on the transgender community.

### **Economically excluded**

The global discourse on poverty largely focuses on extreme poverty or those earning under USD 1.9 per day (2011, PPP) and ignores the most excluded. Even today, India has high density pockets of people who fall into this category. According to SECC, 2011, 75% of 23 million economically excluded households are concentrated in just nine states.

Women in these households are especially vulnerable due to limited resources, social exclusion, and lack of access to basic services and opportunities. These women are almost always from marginalised or minority groups, and thus face a duality of gender and caste based discrimination. This social inclusion affects the type of livelihoods that an ultra poor woman is able to access.

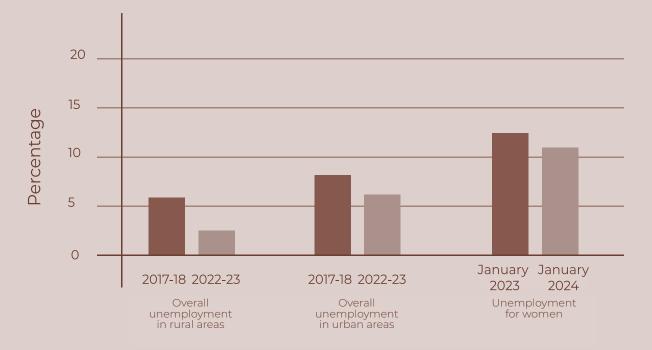
While not all economically excluded women are excluded from labour force calculations, they often live in remote, geographically excluded locations. This in turn, can lead to a situation where they are not covered in the estimates.

The Government of India is currently working to identify and enumerate the number of economically excluded households in the country, which is a step to bring them into the fold. Additionally, state governments such as Bihar, Jharkhand, Rajasthan, etc. are investing in building the capacity of their SRLMs to enable upward socioeconomic mobility for economically excluded women through the graduation approach and other models.



## 2.3 Unemployment

Unemployment has decreased, While this is an overall positive, the fact remains that one in nine women are unemployed today, and women are more likely to remain unemployed than men. The barriers to entry of women in wider and better paying opportunity areas are often considered to be skills gap, lack of care facilities, gender-divide in access to technology, and mobility issues concerning the safety of women



However, in India, women continue to face discrimination as job seekers which is reinforced by the more than 150 laws that prohibit or limit women's employment in certain industries—the generation of petroleum, the manufacturing of products such as oils and rechargeable batteries, and in establishments selling or serving liquor—especially during night-time.

#### There are limitations on working at night in several states

There are 11 states that bar women's employment at night. Two laws govern these strictures: the Factories Act, 1948, at the union level and the shops and commercial establishments laws at the state level. Governments have argued that these stipulations are necessary to prevent sexual violence and safeguard women from the physical dangers of longer working hours.

#### Women tend to be excluded from higher-paying jobs

Under the Factories Act and other labour laws, women are prohibited from working in various industrial processes even during the day. These laws are based on the assumption that some industrial processes may be too dangerous for women. Processes that women are prohibited from participating insuch as glass manufacturing and the processing of oils and fats—are generally better compensated. India's 10 most populous states collectively impose 139 prohibitions on women from working in specific industrial processes ranging from electroplating and generation of petroleum to the manufacturing of products such as pesticides, rechargeable batteries, and so on. In many cases, there is no literature that identifies the special danger to the women, as opposed to the men, working in these jobs. Besides, these roles are open to women in some states and prohibited for those in others, which makes it evident that there is no scientific basis for exclusion.

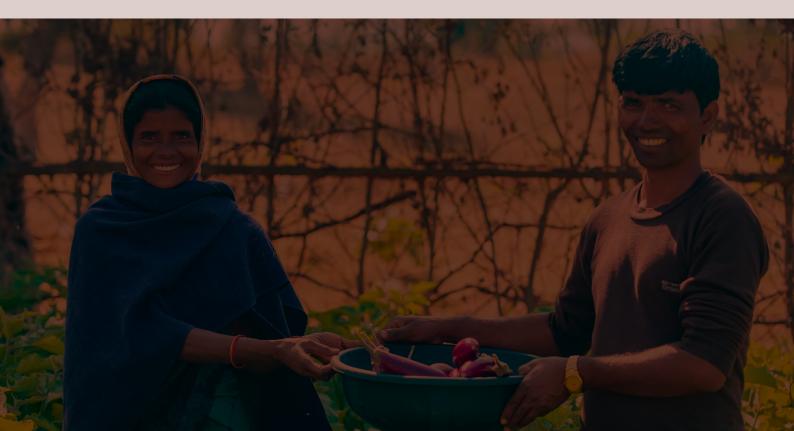
# 3>

#### Moral policing furthers discrimination

Archaic laws continue to keep women out of various types of jobs that are considered incompatible with the gendered expectations that society has of them, such as working in liquor establishments. The prohibitions are based on the belief that it is morally inappropriate for women to serve liquor in public.

Furthermore, each state in India has its own Shops and Establishments Act to regulate trade and businesses not engaged in manufacturing. Only in two states, Goa and Tamil Nadu, are there no prohibitions. Seven states allow women this freedom if their employers comply with conditions, while three do so on a case-by-case basis. How states arrive at these regulatory choices remains unexplained. There are exemptions for women employed to take care of the sick, infirm, and destitute in at least four states, for IT establishments in Telangana, and for cinemas and theatres in Jharkhand.

India is committed to meeting Sustainable Development Goal 5.1.1 of promoting nondiscrimination on the basis of sex. Whether states choose to recognise women as powerful economic agents or as liabilities remains to be seen.



## 2.4 Exits

COVID exposed the fragility in the female workforce - women were 7 times more likely to lose their job and 11 times more likely to not recover it. 47% of the women employed in 2019 were out of the workforce altogether in 2020.

There are two key reasons women bore the brunt of the pandemic in 2020 to a greater degree than men -

First, some of the hardest-hit sectors due to COVID-19 were those where the share of female employment relative to their total employment is higher than that for men. In most economies, women are more likely to dominate sectors such as hospitality, food services, and personal care.

Second, as people moved indoors to stay safe from the virus and many businesses turned to remote work, women generally took up a greater share of household chores than men. And with child care facilities—a critical enabler of careers of mothers—barely available during that period and schools moving online, child care duties fell predominantly on women

The phenomenon of women being hit harder during the pandemic is not unique to India, but it is particularly worrying for an economy where women's participation in the workforce has been low and even falling over the last two and a half decades.

When there is a shortage of work available, women generally are the first to face the consequences of this. For instance, a study of waste-pickers by WIEGO found that even as lockdown restrictions eased, the volume of waste collected reduced and recyclers were reluctant to hire as many workers as before, and women , who are primarily engaged in sorting activities, were particularly affected. Increased patrolling, lack of mobility and increased household responsibilities further constrained women's return to employment.

However, the phenomenon of women exiting the workforce isn't limited to times of Economic distress. In general, women also have far more exit points than men (education, marriage, childbirth), especially in sectors dominated by men.

# 2.4.1 Supply-side and demand side considerations

In the case of women, both the demand for labour (i.e. employment opportunities) and the supply of labour (i.e. availability of women for employment) are impacted by social norms and beliefs.

On the demand side, beliefs regarding appropriate types of work can shape employer hiring preferences and therefore demand for women's labour. Further, the male breadwinner norm means that a fixed amount of labour demand is first met with the supply of male labour, and only if men are not available, are women hired for the job. On the supply side, norms around responsibility for household work, marriage and motherhood norms, and norms around decision-making within the household as well as mobility outside it, profoundly influence availability of women for work, particularly work outside the home.

Another way in which norms can impact labour supply is via the threat of sexual violence and beliefs around "family honour" which can lead households to limit women's mobility. Even if a woman does not face mobility restrictions from within the family or community, she may still be unfree because of larger concerns around violence.



The male breadwinner norm ensures that rising male incomes are accompanied by falling female work participation. That is, women work only as long as a certain minimum living standard is not met by male earnings. When household incomes are low, women enter the market and exit when they rise. Further, in India, women working outside the home is often seen as a sign of lower social standing. As household incomes increase, norms against women may become more rigid and families may withdraw women from the workforce.

#### U-shaped relationship is observed between women's employment and economic growth.

Structural transformation initially pushes women out of the workforce as demand for women's labour in agriculture falls. As growth continues and female education levels rise, new employment opportunities and higher wages pull women into the workforce.

### 2.4.2 Penalty for marriage and motherhood

Norms that make women the primary caregiver in the household have been slow to change with the result that women incur a penalty after motherhood in terms of access to employment as well as earnings. In lower-income countries, there is a greater concentration of women in agricultural activities or in the informal sector, which allows them to combine childcare responsibilities with employment. With economic development, as labour markets become formal without accompanying changes in supporting infrastructure such as childcare facilities, combining childcare with employment becomes more difficult.



## 2.4.3 Employment and male backlash



Working women face higher violence as a backlash to the relative disempowerment of men in the household. There is a positive relationship between women's employment and spousal violence for all except the top wealth quintile.



# **3. Growing female labour force participation**

## 3.1 Identifying thematic areas for growth

Growing female labour force participation, especially in productive jobs, is a long term process which will require multiple, sequenced interventions to become a reality. While outlining a specific strategy is difficult at this juncture given the VUCA world (volatile, uncertain, complex and ambiguous) that we inhabit, there are three promising areas that could be considered for enabling growth in the short term.

In urban India, the labour force participation rate for single women aged 25-29 is 60%, but it is only 20% among their married counterparts, despite similar levels of education. Interestingly, at least a third of housewives have expressed an interest in employment, reflecting a potential workforce not fully tapped into.

One explanation for these low labour force participation rates could be that the location of most available jobs, predominantly outside the home, introduces various constraints often rooted in gender norms. These barriers could manifest as practical constraints, such as travel restrictions or time poverty due to childcare and other domestic work, or less tangible domestic constraints such as norms that enforce female seclusion.

In this scenario, an alternative strategy could focus on modifying jobs to be more compatible with existing norms.

The fractionalization of work through platform jobs or other microwork models is one example of this alternative strategy that provides flexibility with regards to time, as well as other constraints that preclude women from joining the labour force.

The second area focuses on women entrepreneurs. Only 20% of all enterprises are owned by women, with 82% being run as sole proprietorship micro units that are concentrated in the informal sector. While the government segments enterprises into four categories - micro, small, medium and large - there is a fifth that is starting to become more strongly defined - the nano enterprise. These nano enterprises are usually own account enterprises that are home-based or run out of roadside stalls and deal in products that have micro transaction costs, and women mostly operate in this category.

We highlighted the importance of self employment as a fallback sector in times of economic

distress in a previous section. Given the importance of self employment in times of distress as well as those of prosperity, it becomes imperative to focus on female entrepreneurs from low income communities. Women-owned businesses are also more likely to hire other women from their or neighbouring communities, creating a ripple effect. The sectors they operate in are also those that have a constant, recurring demand such as food and fashion, which gives a solid foundation to enable their growth.

Lastly, while we covered the need to outline strategies to work around the constraints, there is also a need to address them to unlock pathways to the labour market.

Three IGC studies have rigorously assessed the Government of Bihar's bicycle programme, which provides girls in grade 9 with money to buy bicycles. Studies found the programme reduced the gender gap in age-appropriate secondary school enrolment by 40% and it led to a 32% increase in enrolment of girls in secondary school, and school dropouts for girls falling below 5%. Another study found the programme seems to change both the girls' own aspirations and those of their families. Additionally, IGC research in Pakistan on the challenges faced by women while using public transport found that existing female-only services benefit their users substantially.

Research conducted among poorer households in tier 3 and rural regions by The/Nudge Institute has discovered that there is an income threshold beyond which households and communities are willing to overlook social norms for women, especially female youth. Households where women earn above this aspirational income threshold are more likely to relax restrictions around aspirational job sectors as well as mobility.

| Activating<br>fractional<br>employment   | Invigorating<br>entrepreneurship<br>avenues   | Breaking<br>barriers to<br>labour markets  |
|--|---|--|
| Redefining work for<br>women through<br>fractional<br>employment as a<br>pathway to increased<br>labour force<br>participation | Unlocking the<br>growth potential<br>of women-owned<br>enterprises<br>through digital<br>commerce<br>infrastructure | Targeting<br>bottlenecks that<br>inhibit the supply<br>of women to<br>labour markets |
| Platform jobs  | Home based<br>businesses  | Care   |
| Digital microwork  | Microfranchises   | Domestic work  |
|  | Agri-allied<br>solopreneurs   | Mobility   |
|  |   | Digital access   |

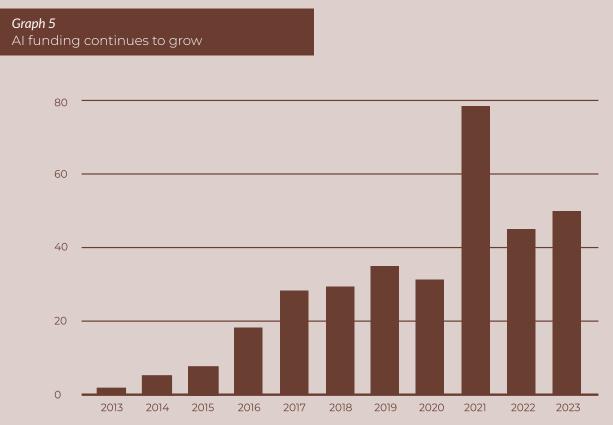
## **3.2 Detailing growth themes**

## 3.2.1 Activating pathways to fractional employment

Fractional employment includes most kinds of gig work that are available today, but we will focus on one emerging area, i.e. digital microwork.

#### Digital microwork :

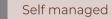
Artificial intelligence is increasingly becoming pervasive in our lives. Businesses across sectors are leveraging the transformative potential of AI for data-driven decision making.

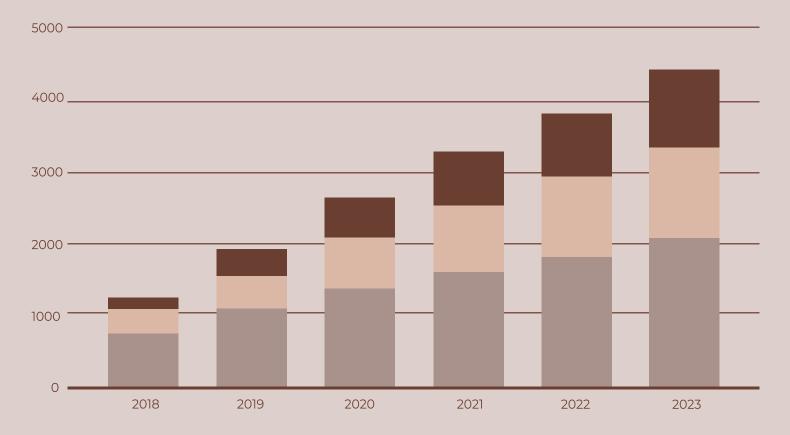


#### Source: Crunchbase

More than a fifth of all venture funding in February 2024 went to Al companies, with USD 4.7 billion invested in the sector. This is up significantly from the USD 2.1 billion invested in February 2023. While it's expected that there would be fewer massive ticket deals like Microsoft's USD 10 billion investment in OpenAI, the overall funding will continue to tick on.

At the core of this phenomenon lies the need for large training datasets, something most enterprises are struggling to address. Services like data annotation and labelling play a critical role in bridging this gap by helping enterprises with quality training data for their AI models, and the demand for these services is expected to grow.





#### Source: Cognilytica

Crowdsourcing is a common model used by outsourcing players in the data annotation space. These models often operate on the principle of microwork, i.e. breaking down large problems into micro tasks that are distributed among the "crowd", i.e. a community of trained annotators. Annotators are usually paid per task or hour of annotation.

Karya is one such example of a crowdsourced outsourcing solution. It is a not-for-profit which enlists rural Indians to create quality data sets to train generative AI solutions. Since its inception in 2021, Karya claims to have facilitated payouts to over 30,000 rural Indians for completing 40 million paid digital tasks—capturing, labelling and annotating data for AI training across speech, text, images and videos in 12 Indian languages, including English. Data workers are paid USD 5 per hour and they also earn royalties every time their data is sold, providing a significant source of supplemental income.

Studies conducted on digital microwork models have found that these models can dramatically increase uptake of jobs at a rate that's far higher than the average FLFPR. One study, conducted in Mumbai, which offered two treatment interventions - one a work from home model for digital microwork, and the other a work from office model with reduced constraints (office located within community, 2-5 minutes walk, childcare available) for the same work, found that uptake for the WFH model was double (56%) that of the WFO model (27%). Another study conducted in West Bengal showed that an option where women could work from home at flexible times while multitasking with childcare had more than triple the uptake (48%) compared to an option that required them to work from office (15%), despite offering flexibility of time at the office setup.

The above numbers for uptake are much higher than the average FLFPR (37%), indicating that digital microwork can potentially improve participation. There is also early evidence that these jobs may function as gateways to other, less flexible options (including office work), but this still needs to be studied to understand if it's a sustainable trend.

NASSCOM suggests that the data annotation market serviced by India can exceed USD 7 billion by 2030, and has the potential to hire a workforce of over 1 million. As the AI economy develops, there is potential for other services to enable the sector, creating even more jobs. There is also an opportunity to create jobs along new workstreams, for e.g. the creation of aggregate, time series datasets on health, education or financial inclusion, or even mechanical turk tasks like Amazon's Just Walk Out, which could diversify the supply.

However, this segment is often plagued by the usual challenges of gig / microwork, i.e. low wages and few protections. While current providers are offering wages that are beyond a supplemental income, the threat of more exploitative players entering the market and offering low wage work is certainly present.

Unlike conventional gig work or even freelance models, microwork may face fewer challenges in work allocation due to the constant demand for data. However, this is another issue that could emerge if the right structures are not established. For example, a 2018 study conducted on Amazon's Mechanical Turk platform found that while over 100K workers could be found on the platform at any time, only about 2000 were active.

Lastly, there is a possibility that the AI models being trained could displace several livelihoods over the next decade, which raises the question of balancing the needs of the sector with the potential issues it can cause for the wider labour landscape.



## 3.2.2 Invigorating entrepreneurship avenues

India's female entrepreneurship base is incredibly diverse, but we will focus on three segments - agri allied solopreneurs, microfranchises, and home-based businesses.

Agri allied solopreneurs

Agri allied sectors like animal husbandry and horticulture have proven to be more profitable and productive than the agricultural sector, and are rapidly emerging industries. India is the 2nd largest producer of fruits and vegetables, the largest producer of milk, the 3rd largest producer of eggs, and the 5th largest producer of meat in the world.

# Table 18 Livestock is growing faster than the manufacturing and service sectors

| Sector              | CAGR (2014-2020) |
|---------------------|------------------|
| Agriculture (crops) | 2.05%            |
| Manufacturing       | 4.93%            |
| Services            | 4.82%            |
| Livestock           | 7.93%            |

Source: Indian Federation of Animal Health Companies

Livestock is an important source of income for landless and marginal farmers. More than 20.5 million workers are engaged in animal farming and about 87.7% of the livestock is owned by farmers of marginal, small and semi-medium operational holdings. Animal production is also largely driven by women, who make up over 70% of the total workforce.

Similarly, women make up ~40% of the workforce engaged in horticulture and it is another high potential sector. The productivity of horticulture has increased significantly from 8.8 tonnes per hectare (TPH) in 2001-02 to 12.1 TPH in 2020-21, leading to a sharp rebound in production and acreage, far outpacing foodgrains production since 2012-13. With a vast production base in horticulture, there is ample opportunity for export, with fresh fruits and vegetables being a major contributor.

Agri allied markets have the potential to drive employment for female solopreneurs through both individual and collectivised entrepreneurship models.

However, while the outlook for these sectors looks promising, there are several bottlenecks that need to be addressed to meet their full potential. Horticulture crops suffer many production challenges such as small operational landholdings, lack of irrigation and poor soil health. The livestock sector similarly faces challenges due to mortality and lack of veterinary infrastructure. Both sectors also face challenges with poor supply chain and market linkage infrastructure, which impacts their ability to grow.

## Microfranchises

Microfranchising emerged as an approach to enabling female entrepreneurship in the late 2000s and grew in traction in the 2010s. This approach focuses on helping women launch franchise businesses that are linked to upcoming and popular consumer brands. The value proposition appears solid on paper. It downscales the concept of traditional financing and provides easily replicable enterprise opportunities with proven operational models. Unlike traditional models, microfranchising operates on a much smaller scale, including in subsistence markets

The very low-cost base of microfranchises allows them to operate profitably in markets in which larger companies cannot survive and provides consumer brands with a pathway to the bottom of the pyramid market.

Similar to a traditional franchise model, microfranchises can take over certain value chain functions on behalf of a larger enterprise. In general, that function can be located anywhere in the value chain from the beginning stages of raw material collection and production (upstream) to the customer-facing functions at the end in sales or after-sales services (downstream). This gives rise to various types of business models.



| Value Chain       | Format                               | Description  | Example   |  |
|-------------------|--------------------------------------|--|---|--|
| Raw<br>Materials  | Hunterer,<br>gatherer,<br>farmer     | Franchisor guarantees purchase<br>and price for products that<br>entrepreneurs hunt, gather<br>or farm   | Fair trade networks for coffee & other products   |  |
| Production        | General<br>product                   | Franchisee licences franchisors'<br>products or technology to<br>local entrepreneurs   | Production process for<br>microencapsulation of lodine in<br>ordinary salt is licenced by Unilever<br>to local salt producers in Ghana  |  |
|                   | Kit assembly                         | Franchisor provides entrepreneurs<br>with product kits that still need to<br>be assembled or finished  | Local tailors stitch custom-made<br>jeans for USD 6 a piece from an<br>assembly kit for Arvind Mills  |  |
|                   | Owner<br>operator                    | Owner of machinery, cars, trucks<br>or other equipment work as<br>franchisees under the franchisor's<br>brand  | Multiple taxi / auto rickshaw<br>brands   |  |
|                   | Specialised<br>equipment<br>operator | Franchise sells franchisees a special<br>purpose equipment / tools that allows<br>them to start their enterprise, while<br>the franchise runs supply chains for<br>the equipment or tools they are selling                 | Kick Start in Kenya sells simple,<br>inexpensive, but versatile irrigation<br>pumps to farmers that they can not<br>only use to irrigate their own land,<br>but also to provide the same service<br>to other farmers                            |  |
| Sales Sales agent |                                      | Franchisee sells franchisor's products<br>in their own community   | Women in HUL's Project Shakti sell<br>hygiene products in their own small<br>kiosks, while entrepreneurs equipped<br>with a bike and a cooler sell dairy<br>products for Fan Milk in areas withou<br>access to regular supermarkets<br>in Ghana |  |
| -                 | Local<br>promoter                    | Entrepreneurs organise and advise<br>neighbourhood self-help groups with<br>a purpose, for which products of<br>the franchisor are required  | Local promoters under the Cemex<br>"Patrimonio Hoy" system in Latin<br>America provide expert advisory and<br>linkage to architects and constructio<br>products for family / community<br>construction project                                  |  |
|                   | Inclusion<br>franchise               | Entrepreneurs run a one-person<br>branch or go into the field to provide<br>access to basic banking or healthcare<br>services to underserved segments  | Entrepreneurs with a netbook,<br>biometric scanner and internet<br>connection provide a no-frills<br>checking account in remote rural<br>areas for Drishtee   |  |
| After Sales       | Field service<br>technician          | Franchisor trains entrepreneurs in<br>performing minor repairs and<br>maintenance for the franchisor's<br>products, which is then leveraged by<br>the entrepreneur to service a specific<br>territory using their own tool | Trained entrepreneurs<br>(usually former electricians) provide<br>service and maintenance for rooftop<br>solar installations for Temasol<br>in Morocco  |  |

The involvement of women is not universal across all business models. Most women operate either at the very start of the value chain, i.e. raw materials, or in the general product or sales agent formats, and even then, their involvement is largely limited to a few sectors such as food and agri allied or consumer goods. There are interventions that have enabled the growth of women in other formats such as inclusion franchises or field service technicians, but those examples are relatively fewer. Skilled cadres of rural women have enabled last mile access for fast moving consumer goods. In 2001, HUL launched Project Shakti, which seeks to empower underprivileged rural women from small villages (population < 2000). The Shakti Entrepreneurs are given training for familiarisation with Company's products and basic tenets of distribution management. In addition, the Company has a team of Rural Sales Promoters (RSPs) who coach and help Shakti Entrepreneurs in managing their business.

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Today, Project Shakti has nearly 190,000 thousand women micro-entrepreneurs across 18 states. It now covers half the villages in rural India, with the network doubling over the last four years. An impact study estimated that nearly 80% or more Shakti Entrepreneurs reported increased contribution to HH income and savings, utilisation towards children's education and increased household expenditures to improve standard of living.

While the focus on food, fashion and finance may continue, enabling last mile inclusion for healthcare and energy access could also unlock female employment at scale

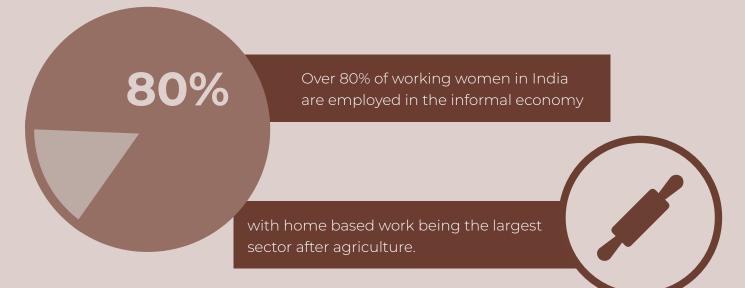
Only 25% of the semi rural and rural populations in India have access to modern healthcare within their localities. Less than 10% have access to healthcare facilities within a 10km radius. This leads to situations where rural populations have to travel long distances to access healthcare services, which can be a burden in terms of time, cost and lost work hours.

Community Health Workers (CHWs) have already demonstrated their impact by being at the forefront of India's response to COVID-19, especially in less developed and rural areas. The CHW trinity, which includes Accredited Social Health Activists (ASHA), Auxiliary Nurse Midwives (ANM), and Anganwadi workers, constitutes an all-women volunteer force that aims to extend access to healthcare at the last mile. Supplementing this base with private microfranchises could be a way to resolve basic last mile health crises, for e.g. the gap in supply of reading glasses.

Energy offers not only an option for women to set up microfranchises for sales, but also for field service, making it another potential avenue for focus.

## **Home-based Business**

India defines a home-based worker as someone who produces goods or services for an employer from their own home, or chosen premises, regardless of whether the employer provides equipment or materials. Despite their prevalence in India's economic landscape, this segment was only recognised in 2007 as a distinct category of workers.



Wiego estimated that by 2017-18, women comprised about 17 million of the 41 million homebased workers in India, and they make up a large proportion of the manufacturing base.

In the past, home-based businesses worked in unison with the textile or other labour intensive industries, with certain parts of the production process being outsourced to these businesses. However, with the development of more precise machinery, this workstream started to dry up, forcing the businesses to fend for themselves. This resulted in a situation where at home entrepreneurs were forced to identify new sources of demand, which is by no means a simple process and often leads to multiple pivots on what to produce.

Additionally, the piece rate wages for home-based work have become steadily worse, to a point where workers have to assemble or create hundreds of products to earn even a subsistence income.

Collectivisation models, especially the rise of SHGs, and the growth of e-commerce players who are focused on selling products that are locally produced or have a distinct local identity have created a space where certain pockets of this segment have seen some growth, especially in the handicrafts and food processing & production industries.

The launch of ONDC and other digital infrastructure meant to democratise commerce can also have a strong impact on the production and sales of home-based businesses, while the growing penetration of retail solutions could also create an opportunity for these businesses to function as wholesale suppliers, but this will require a focused effort to ensure that this segment isn't left behind again.



## 3.2.3 Breaking barriers to labour markets

We focus on barriers that can create time poverty for women such as care, those that limit their connectivity such as mobility and data connectivity. We also look at the role of energy as a barrier for women's participation in the labour force.

### Care

The term 'care economy' encompasses both the informal and formal care markets, referring to unpaid and paid care services, such as family care responsibilities, the care of dependents through education, nursing, child and eldercare, and work in the formal healthcare sector. According to the International Labour Organization (ILO), formal healthcare, services for childcare, early childhood education, disability and long-term care, and eldercare are areas that comprise the care sector.

However, the absence of a structured care economy has a greater impact on the labour force participation of women in India. Many analyses and studies over the years have pointed out that Indian women spend far more time on such unpaid work than men.

According to NITI Aayog, women spend **9.8 times** the time that men do on unpaid domestic chores. A study by a professor of the Indian Institute of Management, Ahmedabad, said that women between **15-60 years** spend **7.2 hours** on unpaid domestic work while men spend only **2.8 hours** on these tasks. This adds to concerns that women taking up paid labour will only make it more difficult for them to shoulder their domestic workload.

Further, a woman's caregiving work for a child determines her daily time endowment, affecting her commitment to full-time work. As a result, women allocate less time for work or education or upgrading their skills, significantly affecting their work preference over time too. India is currently grappling with wage stagnation and an employment crisis. Economic growth depends not only on channelising investments towards financially productive sectors but also facilitating women's paid work. This means increasing the time available to them while ensuring economic and social mobility



Among the models India could look to are some Western European nations and Canada, which invest in providing affordable access to care infrastructure for children and the elderly. However, an Asian country is a standout - Vietnam. Its high female labour force participation rate outstrips the best performers among advanced Western economies. And it has also succeeded in maintaining female labour force participation of some 70 percent for more than two decades—a feat unsurpassed even among advanced economies.

While the war makes Vietnam a special case, the country's experience has lessons for the rest of Asia in advancing female labour force participation. The initial boost to female employment in Vietnam was maintained over time with the help of policy choices: economic reforms and a major push toward improving education that emphasises gender equality.



In Vietnam, men and women graduate at roughly the same rate at the postsecondary level. It is one of the few Asian countries to have succeeded in translating gender parity in educational attainment into gender equality in labour force participation rates. The relative success in bringing high-skilled women to the workforce is also a function of generous family-friendly laws regarding child care and maternity in Vietnam. The nation has also strengthened its legal framework to guarantee equality and gender nondiscrimination.

On-site childcare for workers has many advantages, from lower absenteeism to greater employee engagement. It is also a highly accessible model, available to businesses of any size, as well as unions or groups of employees. One example is the Self-Employed Women's Association (SEWA) in India, which represents more than two million informal workers across 18 of India's states.

Online care systems are increasingly being used to provide care where people lack access to services. It is a growing area and one in which businesses can make a valuable contribution – by providing technology solutions.

Digital care management platforms extend the reach of care services to remote locations where regulatory frameworks may be lacking or where labour shortages affect care provision.

In healthcare, for example, using telehealth platforms can help with triaging patients and reducing the workload on medical facilities. Similarly, digital platforms can help with remote monitoring of care receivers when carers or family members are not on-site.

Another example is the digital Helpers platform that supports Paraguay's domestic workers, who make up more than 15% of the population in urban areas. Helpers facilitate contracting, training and payment of social security charges.

## Mobility

Across the world, multiple studies have reiterated the role of public infrastructure in enhancing socio-economic outcomes for women including employment and empowerment

In rural areas, more than half of women employed in non-farm industries did not travel outside their homes. Another 18 percent travel less than 1.5 kilometres from their home. Lack of availability of public transportation has further limited the quantity and quality of work opportunities for rural women. A reluctance to migrate further decreases the chances of women to receive an offer to work and accept them, if the jobs required them to move out of their place of residence. Families generally express safety concerns for women working outside their district or state. Among urban women, the pattern is substantially different. Only 36 percent of urban employed women stayed within the home. And, about 46 percent travelled more than a kilometre to their place of work.

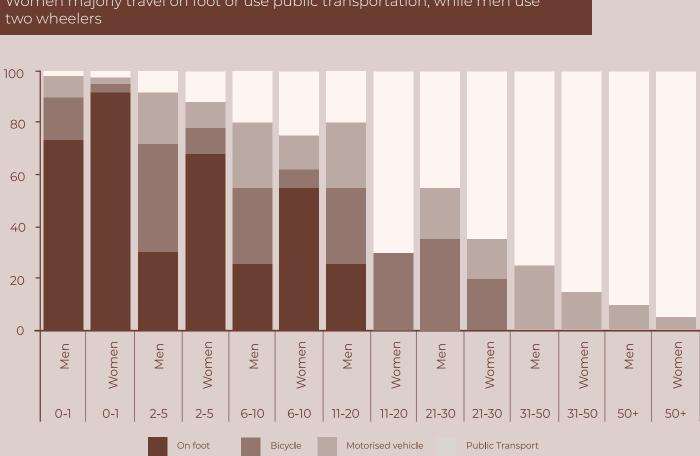
As the commute increases, women rely more than men on public transport.

For a commute of 6 to 10 kms, 37% of women use public transport, compared to only 22% of men.

For 11-20 kms women's share increases by nearly 25 percentage points to 62%, whereas for men it is 40%. Around 30% women in rural India and 45% women in urban India travel beyond 1.5 kilometres for work.

At distances between 1 to 5 kilometres, about 43 percent of women walk to work. Even at longer distances, 6-10 kilometres, about 44 percent of women are still walking to work. For women, as commute distance increases, there is an increased reliance on public transport. For example, between the distance of 6 to 10 kilometres, about 37 percent of women use public transport, compared to only 22 percent of men. And, when distance increases further (11-20), women's share increases by nearly 25 percentage points to 62 percent, whereas for men it is still about 40 percent.





Source: Periodic Labour Force Survey 2022-23

Women face a significant risk of harassment and sexual assault on public transport, and this lack of safety directly affects women's physical mobility, limiting their opportunities to work and sometimes deterring them from work altogether. In the context of these safety concerns, a lack of affordable commuting options compounds the restrictions women face. A survey by Uber India and Oxford Economics found that ride-hailing unlocks work opportunities for women by providing a safer commuting option. Women also use ride-hailing as a tool to manage their time more effectively.

Four out of 10 working women riders agreed that the availability of ride-hailing services enabled them to join the workforce. Nearly a third of working women in the survey agreed that the availability of ride-hailing services enabled them to access a wider pool of suitable work opportunities.

#### Graph 7

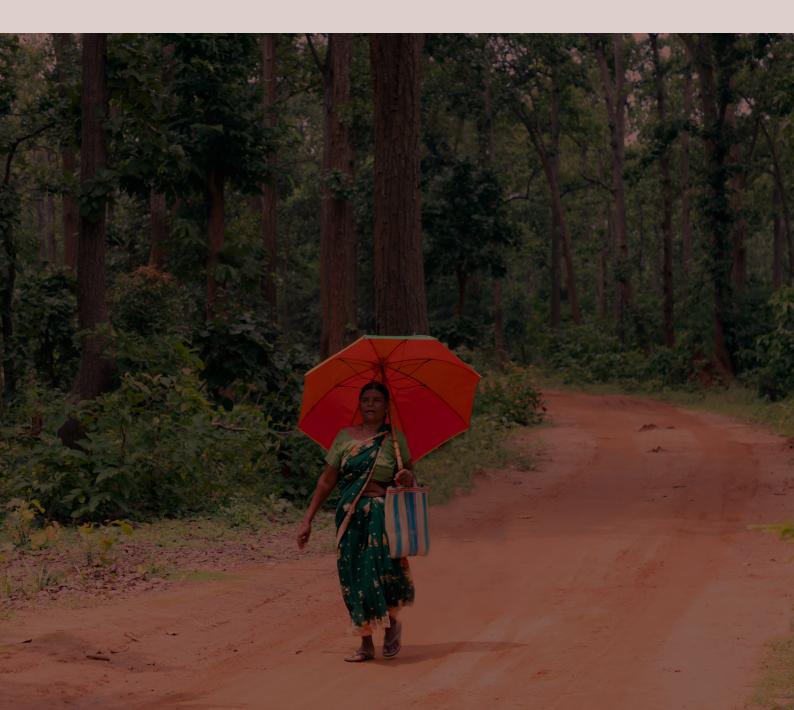
Women majorly travel on foot or use public transportation, while men use

While the availability of two-, three-, and four-wheeler vehicles for ride-hailing has expanded the array of options available to travellers, more solutions can be explored. For instance, the 'SHE Shuttle' initiative in Telangana – made possible through cooperation between the government and industry - provides free shuttle services for working women in the IT corridor. It has seen success with its focus on providing safe transport that closes the last mile commute gap.

Ride-hailing has the potential to reshape mobility for women in Indian cities, providing viable transport options for women to access work and a wider range of jobs. However, women workers still face the barriers of affordability and accessibility of these services. Thus, public transportation for the masses at affordable rates is a pressing need to ensure more women have access to work opportunities.

India has only 10% of the buses that it needs so, as a result, waiting times are as long as 60-90 minutes sometimes, and unpredictable. If two buses come in quick succession, then the next bus could be more than two hours away. Waiting 45-60 minutes a day for the bus is common.

During peak hours they may not even be able to board if it is already overcrowded



Means of transportation that reduce mobility barriers and are accessible across routes can empower girls and women to continue their education and participate in the labour force. The Government of Bihar's bicycle programme, which provides girls in grade 9 with money to buy bicycles reduced the gender gap in age-appropriate secondary school enrolment by 40% and it led to a 32% increase in enrolment of girls in secondary school, with school dropouts for girls falling below 5%. The programme seems to change both the girls' own aspirations and those of their families.

Various transport interventions in Pakistan have attempted to facilitate women's mobility by creating safe physical spaces for women to travel (Pink Bus Lahore, Zong-RTA Tabeer project), or changing norms around women's presence in public spaces (ILO Decent Transport Project, Women on Wheels, EPF Pink Rickshaws). Local trains in Mumbai have separate women compartments to facilitate long-distance travel in a safer physical space.

Mobility is an important factor to ensure women enter, stay, and feel safe in the labour force at any corner of the world and at any hour of the day, and we need more measures to make this a reality.

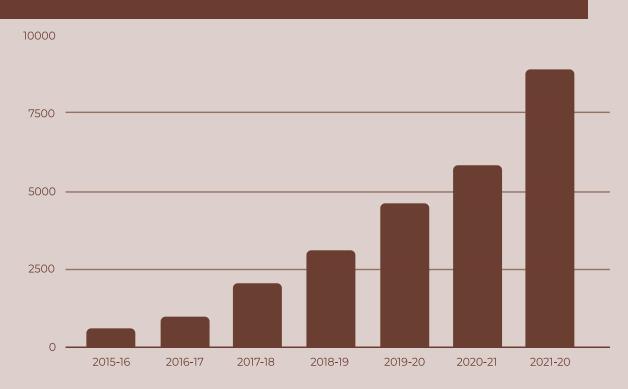


## **Digital Access**

India's informal economy is witnessing unprecedented integration into the country's growing digital fabric. The ubiquity of smartphones coupled with affordable internet access is fueling this trend. Apps like WhatsApp have overhauled communication and have the potential to resolve skilling gaps and information asymmetry. Digital payments are enabling financial inclusion at a scale never seen before, and UPI 2.0 has the potential to create a similar transformation in the credit landscape.

#### Graph 8

UPI rapidly accelerated the adoption of digital payments



\* Graph shows millions of transactions

Source: Payments and Commerce Market Intelligence

Over 500 million merchants used UPI to accept payments in 2023. Similarly, Jio has democratised internet access for over 800 million Indians through affordable data plans.

Digital India's growth story has transformed the lives and livelihoods of many Indians, but it's also left women behind. While smartphone ownership and mobile internet use in India have grown steadily for men since 2019, the story is different for women.

#### Table 19

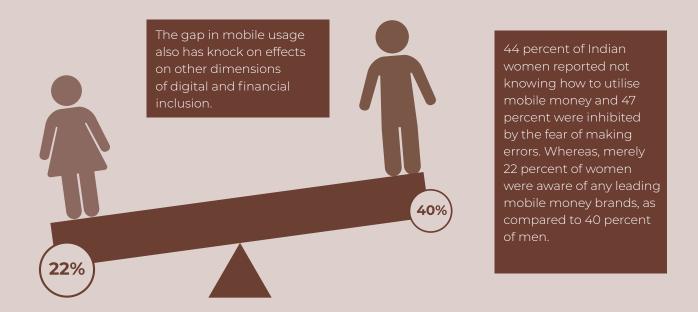
Women are 40% less likely to have access to smartphones and internet compared to men

|       | Mobile Internet users (% of total pop) |      | Smartphone owners (% of total pop) |      |
|-------|--|------|------------------------------------|------|
|       | 2019                                   | 2021 | 2019                               | 2021 |
| Men   | 42%                                    | 51%  | 36%                                | 49%  |
| Women | 21%                                    | 30%  | 14%                                | 26%  |

Source: GSMA consumer surveys

The gender gap in mobile usage narrowed from 68 per cent in 2017, to 56 per cent in 2018, 50 per cent in 2019, and 33 per cent in 2020, due to changing market dynamics, more affordable handsets and a notable increase in women's adoption during the onset of Covid-19 restrictions and lockdowns. However, in 2021, this trend reversed when men's adoption of mobile internet increased while women's remained unchanged.

#### Knock on effects of poor digital access



This underrepresentation limits not only their own digital empowerment but also the transformative potential of technology as a whole - over the past decade, women's exclusion from the digital sphere has shaved USD 1 trillion off the GDP of low- and middle-income countries.

Narrowing the digital divide can considerably improve the lives and livelihoods of vulnerable women. A group of women entrepreneurs from Haryana was able to list their bangle-making business on Facebook helping them to vastly expand their market, recover losses they incurred as a result of COVID-19, and increase their earnings by nearly 60 percent during the festive season. In Telangana, the UNDP developed a digital platform to provide design and financial literacy training to artisans and connect them to markets for their products. As a result, 2,000 handloom weavers and artisans received training and were able to significantly expand their businesses. These are just two examples of how narrowing the digital divide can considerably improve the lives and livelihoods of vulnerable women.

It is important to remember that creating affordable communication and connectivity technologies that meet the needs of women can positively impact their livelihoods, but it is not a silver bullet. Studies performed on youth in Africa showed that phone connections are not enough. Connectivity is only useful if it opens up access to employment opportunities that will pay a living wage.

However, having access to technology can go a long way in accessing those opportunities when they become available.

## **Energy Access**

The link between energy access and economic empowerment of women is still not understood very well, but the evidence supporting this relationship has been present since the early 1900s.

As electrification became more common at the start of the 20th century, it resulted in the creation of appliances that significantly reduced the time spent by women on certain domestic tasks. The invention of the washing machine was one such example, as it reduced the time taken to do a batch of laundry from four hours to less than one. Clean energy technologies can have a similar impact on care work by further reducing the time spent by women on domestic tasks.



According to the International Energy Agency, more than 770 million people—most of them in rural areas in low- and middle-income countries—have limited or no access to electricity, and 2.5 billion people lack access to clean technologies and fuels for cooking, lighting and heating. Women bear the greatest burden of this energy poverty because of existing social norms. As the primary providers of household care work, women are often responsible for looking after children, older persons, and persons with illness or disabilities, and for domestic tasks such as food preparation and cooking, cleaning, and collecting water and fuel. The lack of access to affordable and reliable clean energy makes these tasks harder to perform, placing additional burdens on women's time, which in turn limits their opportunities for education, paid work and entrepreneurship - including within the clean energy sector itself.

Clean energy employment worldwide reached 12 million in 2020, and is expected to continue growing rapidly in the future. However, the sector is heavily male dominated. A 2019 global survey by the International Renewable Energy Agency found that women represented just 32% of the clean energy workforce. They were also disproportionately grouped in "feminised" occupations in administrative and support services, holding only 28% of the technical positions that require science, technology, engineering and mathematics (STEM) training.

The impact of energy access isn't limited to reducing the burden of domestic care or employment in the energy sector. Decentralised renewable energy appliances can also improve the livelihoods of women in other sectors such as agriculture and manufacturing by providing consistent supply of electricity and reducing fuel & other energy costs.

For the above to become a reality, there is a need to develop affordable DRE appliances that can meet the needs of women producers and entrepreneurs. In addition, building awareness through local champions / salespersons can also improve the landscape of energy access, especially for rural women while also functioning as a source of employment.



## **3.3 Building resilience**

India's female employment landscape is fragile and far more prone to shocks than the landscape for men. Women are far more likely to lose access to paid work even in the best of times, and even more so in times of economic distress.

Market and policy reforms around skilling, information asymmetry & job access, and financing can build resilience in the job market and reduce the risk of women dropping out or staying out of the workforce.

## Skilling

In 2015, the National Policy for Skill Development set a target to skill 402.87 million adults by 2022. The challenge is daunting, after all, only 4.69% of India's total workforce have undergone any formal skills training.



In India, the skilling of women is a far greater challenge than skilling men owing to the nature of women's work. Most women in India are employed in low-skill and low-paying work, with neither social protection nor job security. 94 percent of women workers are in the informal sectors, working as daily-wage agricultural labourers, at construction sites, as self-employed micro-entrepreneurs, or engaged in home-based work.

Greater informality leads to lower incentives to acquire new skills, while employers prefer machinery over labour when faced with inadequately skilled workers. Thus, few new jobs are created, driving India's workforce further into informality. In the case of the female workforce, pervading informality is added to other challenges that keep them from participating in work – such as the burdens of family and caregiving, restrictive social norms, and limitations on mobility. Table 20

Women are much less likely to have received vocational training

|               | Male  | Female | Person |
|---------------|-------|--------|--------|
| Rural         | 8.5%  | 3.4%   | 6.2%   |
| Urban         | 11.3% | 4.8%   | 8.2%   |
| Rural + Urban | 9.3%  | 3.8%   | 6.8%   |

Source: Ministry of Labour and Employment

Though policies like 'Skill India' acknowledge the need for non-traditional occupations for women, they go little beyond rhetoric and the absorption of women into other sectors remains low. Courses for women under PMKVY, for instance, have concentrated on areas like apparel, beauty, wellness, and healthcare—this keeps women out of more remunerative sectors.

The National Skill Training Institutes for women offer only 21 courses, while the general ITIs, where men predominate, offer 153. Even among the 21, there is a preponderance of courses in occupations that are either outdated or patently stereotypical for women, such as secretarial practice, cosmetology, fashion design, or interior design.

A study of female participation in skills training - which gathered data between 2014 and 2018 - found that enrolment of women in ITIs was concentrated in occupations such as dressmaking, computer operating, or surface ornamentation;

less than 5 percent was enrolled in engineering-related courses.



Only 37 percent of female enrolments between 2014 and 2018 were in the priority sectors identified by the MSDE—i.e., those expected to generate the maximum jobs in the future. There were hardly any women taking courses in sectors such as construction and real estate, transportation and logistics, electronics, IT hardware, the auto industry, or the pharma industry.

Gender bias norms around work, mobility, information, and access to networks have affected the uptake of the programmes. The pandemic and the "new normal" have speeded up the adoption of digital technology, transformed the world of work, and upended the demands of the market.

Skilling also needs to cope with the transformations of the digital age. There is a need for rapid digital skilling solutions in non gendered occupations that also account for the time poverty faced by women due to the burden of care work. Such programs can also help to reskill or upskill women who've taken a break from the workforce due to marriage or motherhood, ensuring that their careers don't suffer as a result of the break.

## Information asymmetry & job access

A running theme through this report has focused on how women struggle to access high quality jobs.

The DESH-Stack e-portal aims to solve some of the challenges faced by female jobseekers by providing API-based trusted skill credentials, payment and discovery layers to find relevant jobs and entrepreneurial opportunities.

The Trust layer consists of the electronic registries of information on all stakeholders and verifiable digital skilling credentials. A digital credential or digital skilling identity acts as a repository for an individual's qualifications. The stack offers digital credentials that allow certificates to be awarded and verified in a digitised manner. Electronic registries act as a single point of access for all information. This enables easy exchange of training and associated services across stakeholders. The Finance layer of the DESH-Stack leverages the India stack, the payments ecosystem, to deliver financial services through the portal. It supports interactions between financial resource providers, individuals and organisations to increase accessibility to those in need. The Discovery layer is facilitated through open protocols that increase interoperability and discovery of services across stakeholders. Platform developers use these protocols to build end-user solutions over the stack.

The portal can aid in improving job access for women seeking employment in the formal sector, but doing the same for the informal sector will be easier said than done. Take the construction sector as an example - the majority of the female workforce is made up of migrant labour that is hard to locate and keep track of. Workers in the informal sector are also less likely to trust measures that seek to integrate them into the formal workforce as they fear that it could lead to exploitation by the government and law enforcement agencies.

An exception to the above lies in enabling market linkage for female entrepreneurs through platforms such as eNAM and ONDC.

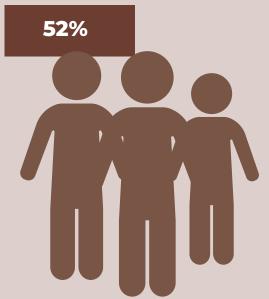
## Financing

Since 2011, India has doubled the share of adults with a financial account to reach 78 percent. This growth has also been equitable, as India's gender gap has in that same period dropped from 22 percentage points to insignificant levels. India's growth in account ownership has been helped by various digital innovations and government sponsored schemes aimed at financial inclusion. The Pradhan Mantri Jan Dhan Yojana (PMJDY program) has reduced the gender gap in account ownership. Eight years after its implementation, more than 462 million accounts have been opened, 56 percent of which belong to women, and 67 percent of which are in rural and semi-urban areas.

Even though the number of women with bank accounts has increased, equity in financial usage has lagged . Credit use in particular by women is low. The share of adults in developing countries that borrowed formally in the year prior to the survey was only around 23 percent. For India, that share was ten percentage points lower, at 13 percent. The share of women borrowers in India is lower still at 10 percent, as compared to 15 percent of men

There is a systemic gender gap in credit usage. Women in India receive credit equivalent to only 27 percent of the deposits they contribute, while men receive credit equal to 52 percent of their deposits. This discrepancy might be due to women not taking advantage of their credit history by applying for loans, and it may be that financial institutions do not grant credit equitably to women.





Anecdotal evidence suggests that women are more likely to use their bank accounts, as well as to save and borrow, if a female banker or agent is available to help them. However, since financial institutions have primarily catered to men and male-owned businesses, they have limited understanding of the socio-cultural constraints and operating contexts that women and women-owned businesses face. As a result, the number of women business correspondent agents in India is low. These are in-person staff for non-branch banking services locations. As of March-2022, less than 10 percent of India's 1.3 million business correspondents are women, limiting the access options for women borrowers.

Value-added non-financial services such as business coaching, tax-filing support, and product design can also serve to contextualise the needs of women borrowers and put them in a position to improve their credit profile - this serves both the women borrowers and the lenders.

## Conclusion

India's demographic dividend cannot be realised without boosting the participation of women in the workforce, and we have made several strides towards that direction. However, addressing the multifaceted barriers—economic, social, and cultural—requires both urgent action and the patience to achieve large-scale disruption.

Female labour force participation and quality of employment for women in India is a factor of availability of jobs as well as productive entrepreneurship that are enabled by market forces, yet the ecosystem around this problem needs to ensure that there is convergence on building momentum for equitable market models which are fair and inclined towards sustainable and resilient work options for women looking to join the workforce. Incentive competitions can be a disruptive model of change to guide markets where they are needed the most - to solve complex problems with unprecedented attention and urgency - and stay biassed towards the vulnerable segments of the society.

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