

Original Article | ISSN (0): 2582-631X

DOI: 10.47857/irjms.2025.v06i03.04624

Impact of Women's Reservation and Women's Well-being Schemes on the Participation of Females in the Labour Force: Evidence from Indian State of Bihar

Ramun Prasad^{1,2*}, Deepak Kumar Behera¹

¹Department of Humanities and Social Sciences, National Institute of Technology Patna, Bihar, India, ²Government Polytechnic Aurangabad, Bihar, India. *Corresponding Author's Email: ramunp.phd20.hs@nitp.ac.in

Abstract

Bihar is one of the most populous, poorest, backward, and highest migrant-sending states of India. Approximately 33.74 percent of population lives below poverty line while 51.9 percent are multidimensionally poor. However, the female labour force participation rate (LFPR) has improved in various sectors in the economy of Bihar after introducing the women reservation policy. This progress stems from 50 percent reservation for women in Panchayati Raj Institutions (village council administration), 33 percent in state Engineering and Medical colleges, and 35 percent horizontal reservation in state government jobs of Bihar. Additionally, women's well-being schemes have been pivotal in breaking the patriarchal barriers and empowering women. Findings of study indicates that reservations for women and women's well-being schemes have significantly contributed in enhancing women's roles in household decision-making, education, police force, industries, and Panchayati Raj Institutions (village council administration) in Bihar through their participations. Further, to eliminate the risk of violence against women and girls, to increase their participation in the workforce, and dismantle patriarchal mindsets, the government should prioritize the establishment of women's empowerment cells in each and every educational institution. Furthermore, compulsory women's studies should be introduced in the curriculum from the very beginning to change the patriarchal and societal attitudes towards women. This would help to raise female participation in uplifting their socio-economic status in the society. This would also enable the government to harness the available potential of 50 percent of population in the growth and development of nation.

Keywords: Bihar, Female Employment, Horizontal Reservation, Labour Force, Women.

Introduction

Bihar is one of the most populous, poorest, backward and highest migrant-sending states of India where 54,278,157 males and 49,821,295 females reside. Out of that 31,608,023 males and 20.896.530 females are literate. Out of 49.821.295 females, 11,879,282 are youths aged between 15 to 29 years. Around 89 percent of people of the total population live in rural areas and 11 percent in urban areas (1). According to National Institute for Transforming India around 33.74 percent of people are below the poverty line while 51.9 percent are multidimensionally poor (2). Further, the participation rate of females in labour force is also miserable in comparison to its male counterpart but better than the national level average, where its participation rate (i.e. LFPR) is declining. Since the government of Bihar has changed the scenario by introducing 50 percent reservation for women in Panchayati Raj

Institutions (PRIs) (village administration), 35 percent horizontal reservation for women in government jobs, and again 33 percent reservation for women in state Engineering and Medical colleges of Bihar (3). provisions related to reservation encouraged women to participate in the economic system, empowered them by equipping with medical and engineering skills and reduce their migration. The reservation policies for females in state government jobs have also been introduced in several other Indian states, like Jharkhand, Gujarat, Punjab, Tripura, Uttarakhand, Madhya Pradesh, Karnataka, Kerala, and Tamil Nadu with the intention to enhance female participation in the labour market. Additionally, states like Bihar, Rajasthan, and Uttarakhand have enacted laws and mandating 50% reservation for women in Panchayati Raj Institutions (local government

This is an Open Access article distributed under the terms of the Creative Commons Attribution CC BY license (http://creativecommons.org/licenses/by/4.0/), which permits unrestricted reuse, distribution, and reproduction in any medium, provided the original work is properly cited.

(Received 25th March 2025; Accepted 07th July 2025; Published 27th July 2025)

bodies). Economic Survey report published by both central and state governments reveals, the states implementing female reservation policies have witnessed a significantly higher increase in percentage of female labour force participation rates (LFPR) as compared to those that have not such kind of policies. Further, various other schemes are also being implemented for holistic growth and development of women. It is playing a significant role to emancipate women from various social stigmas, and empower them to be selfreliant and participate actively in household decisions (4). Bihar becomes the leading state by employing 25.3 percent of women in the Bihar police force (5, 6). Recently it has increased to 28 percent after recruiting 10,459 more female in police personnels. Yet, the worker population ratio (WPR) is lowest for male and female workers in Bihar. Since a large number of females are neither working nor searching for any job to pursue an economic activity due to patriarchal control and orthodox thinking of society (7-9). This might be the reason for low female LFPR. However, the percentage of female workers engaged in the police department and casual labour is higher than all-India average (10). In this context, the study of the socio-economic status of women in Bihar and its underlying factors after the introduction of the horizontal reservation is very important. Since, Bihar is the highest migrant labour sending state also where males migrate out to earn their bread leaving their wives and children behind at home and women tackle the situation at home using remittances (11-14). She also plays a significant role in household decisions in the absence of males (15). Some women of socially marginalized groups also participate in the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) to earn a livelihood during the agriculture lean season (16).

The earlier studies on female labour force participation and migration in Bihar talk about so many socio-economic factors such as age, caste, income, education, social stigmas, patriarchal thought and attitude of male, etcetera were responsible for less female labour force participation and migration (17-22). On the other hand, some other studies talk about the complex social attitude which makes challenges in the implementation of preventing measures to eliminate violence against women and girls (23,

24). Moreover, a lot of theoretical and empirical literatures are available on female labour force participation which talks about socio-economic indicators and other determinants which are responsible for less participation of women in the labour market in India (25). Recent literature shows that married women having higher educational achievement are spending more time at home in childcare and other domestic work, are less likely to participate in the workforce (26-28). Even, states like Karnataka, Kerala and Tamil Nadu have also implemented the female reservation which brought significant changes in participation of female. But a wide gap between male and female labour force participation is still persist. This is the result of growing gender pay gap in high-level occupations and extra domestic reproductive role of females (29, 30). The growth of wealth or incomes of household members has also played a significant role in reducing the participation of women in the labour force (31-33). However, in the case of Bihar, a few studies talk about socioeconomic factors like age, caste, income, education, social stigmas, and patriarchal attitude of males which were more responsible for less participation of females in the labour force and migration (34-

This study adopts a multi-theoretical approach by integrating Sen's capability approach, feminist economics, and institutional theory to investigate the status of women in the labour market. Sen's capability approach emphasizes the role of public policy in increasing individuals' real freedoms and capabilities, particularly for females. It is argued that women are underprivileged in several dimensions while privileged in a few (37). It used to seen that traditional economic measures like GDP fail to account for unpaid care work, which is primarily done by women (38, 39). Further, Feminist economic theory highlights the structural and systemic barriers that restrict women's access to economic opportunities. Moreover, some other studies conducted in sub-Saharan Africa argue that weak institutional support is also one of the major reasons which limiting the participation of women in the economic system (40, 41).

Thus, these existing literatures have mainly focused on the various socio-economic and institutional aspects regarding lower participation of females in workforce by ignoring women empowerment policies like reservation, horizontal

reservation, and well-being schemes. In light of above research gap, this study tried to examine the impact of reservations policies on present status of women and analyze its direct effect on women empowerment. Since, it is expected that due to the introduction of horizontal reservation for women in Bihar, the participation of females in household decisions, higher education, teaching-learning, police force, MGNREGA, politics, etcetera has significantly improved recently. Even, it was concluded in US states economy that a rapid growth in female employment rates lead to convergence with male employment rates and reduce the gender gap in labour market and employment (42). Nevertheless, no study hitherto inquired into the dynamics of the employment status of females. So, this paper attempts to explore the current employment and socioeconomic status of women in public or private enterprises after the introduction of horizontal reservations and other schemes launched for women empowerment in Bihar. It also tried to examine the socio-economic factors creating hindrances to accelerate women's participation rate in the labour force.

This study contributes to the literature in several ways. It is pertinent to explore the reasons for less participation of females in the labour force, the status of female employment in Industries, increasing share of females in the Bihar Police force and education department are important aspects. It is also expected that the participation of women in household decisions, education, employment, MGNREGA and local politics of Bihar has significantly improved in the recent past. Moreover, this has not only implications for individual females but also very crucial for the overall socio-economic well-being of women community. In this context, this paper attempts to explore the current employment status of women in public and private enterprises after the introduction of horizontal reservation in Bihar. This study also tries to examine the socioeconomic factors creating hindrances to accelerate women's participation rate in the labour force. So, there are many research questions which have been taken under consideration to study the aforementioned objectives. How is reservation affecting the socio-economic well-being of females in Bihar? whether it improved the participation of women in education or not? How does it motivate and influence the male-dominated society to work for the enhancement of women's employability? Does reservation empower women in society or not? What role it has played in reducing female out-migration from Bihar? This study used secondary data to address the issues.

This study is structured under four sections. Section One introduces the study. Section Two, describe the methodology used. Section Three discusses the results, while section Four provides conclusions drawn from the study.

Methodology

This study is based on secondary data. Data collected by the Periodic Labour Force Survey (PLFS) of India in 2017-18, 2018-19, 2019-20, 2020-21, 2021-22 and 2022-23 have been used for the investigation. This sample period is selected due to two reasons: first major parts of women empowerment programme have been launched by central as well as state government after 2006, and second a lot of changes in socio-economic status of females have been recorded after introduction of reservation for females in education and government jobs of Bihar.

The PLFS is a comprehensive survey that provides widespread national coverage. It collects information on various socio-economic indicators which would enable us to explore the socioeconomic status of women in Bihar over the years. the household and individual-level Both information have been used for the analysis. Additionally, the National Sample Survey (NSS) also provides the widespread information on various socio-economic indicators but it has been collected up to 68th round (2011-12) and therefore, not taken into consideration in this study due to obsolescence. On the other hand, the Census data provides the macro level information only which has been used to know the demographic structure of Bihar. But, the Census data is also not very much useful for the analysis of female employment status.

Hence, most of the findings of this paper are based on the PLFS and other data collected from various articles, newspapers, and reports published by the central and state governments during pre-Covid-19, Covid-19 and post-Covid-19 period. Further, to explore the sector-wise absolute number of female workers, recent annual reports like RBI statistics, NITI Aayog Report (2023), NFHS Report-5 (2019-

20), India Justice Report (2020), and Bihar Economic Survey (2021-22, 2023-24) have also been studied. Furthermore, the data has also been collected from the Ministry of Rural Development to know the women's employment status under Mahatma Gandhi Rural Employment Guarantee Act (MGNREGA).

The analysis section of the paper is predominantly based on descriptive statistics where information

is summarized in the percentage figure with help of tables and visual tools like bar chart, line chart, etc. Variables like education level, employment status, active participation in household decision, access to scheme launched for women empowerment, and other socio-economic factors have been taken into consideration during investigation.

Table 1: Percentage Educational Status of Persons in Bihar Having Age 15 Years and Above during 2022-23

Status of General Educational Level	Male	Female	Persons
Not Literate	29.6	43.2	32.7
Literate up to Primary Level	34.4	13.8	13.6
Middle	16.4	17.9	20.7
Secondary	10	11.8	14.4
Higher Secondary	5.4	8.7	11.1
Diploma/Certificate Course	0.1	0	0
Graduate	3.6	4.4	7
Post Graduate and Above	0.4	0.2	0.5
Secondary and Above	19.5	25.1	33
All	100	100	100

Results and Discussion Employment Status of Women in Industries and Other Public-Private Enterprises

Table 1 represents the general educational level of males, females, and persons aged 15 years and above in Bihar where 43.2 percent of females and 29.6 percent of males are illiterate. Further 34.4 percent of males and 13.8 percent of females are literate up to primary level. If we glance at the middle, secondary, higher secondary, and graduation (i.e., higher education) then find that the percentage share of females is comparatively higher than that of their male counterparts. This higher percentage share of females is the outcome of reservation and various social welfare schemes launched by the central as well as state

governments to improvise the socio-economic and educational status.

Table 2 shows the age group-wise percentage status of Female in Labour Force in Bihar from 2017-18 to 2022-23. It demonstrates that the participation rate of urban female in the labour force is more than that of their rural counterpart up to 2019-20. But after 2019-20 the participation rate of rural females increased and crossed their urban counterparts. But urban female youths are more prone to take part in the labour market than that of their rural counterpart up to 2021-22. This might be the consequence of efforts made by the governments and individuals simultaneously to improve their education and skills at different levels. These changes can be seen in both the urban and rural women. Even urban females are more socially, politically and educationally aware in comparison to rural females. This might also be the reason for major urban females' participation in the labour force. On the other hand, if we put

glance at data after 2021-22, it can be seen that the participation rate of rural females has increased leaving urban females behind. This might also be

the result of various social welfare schemes which have been brought for female emancipation.

Table 2: According to Usual Status (PS+SS), Age Group Wise Percentage Status of Female Labour Force Participation (FLFP) Rate in Bihar during 2017-18 to 2022-23

Year wise Status of female labour force participation in Bihar												
	2017	7-18	2018	3-19	2019	9-20	2020)-21	2021	1-22	2022	2-23
Sectors	15-29 Years	15-59 Years										
Rural Female	1.6	4.1	1.4	4.2	3.7	9.8	5.3	11.3	3.8	11	12	24.8
Urban Female	2.7	6.9	3.7	7	6.3	8.9	5	6.9	8.5	11.5	7.3	13.8
Rural and Urban Female	1.7	4.4	1.6	4.5	4	9.7	5.2	10.9	4.2	11	11.6	23.9

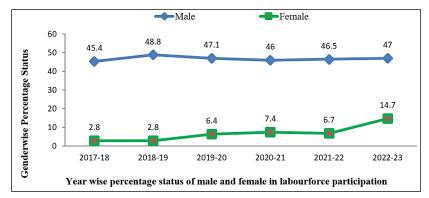


Figure 1: According to Usual Status (PS+SS), Gender Wise Percentage Status of Female Labour Force Participation Rate in Bihar during 2017-18 to 2022-23

Figure 1 shows the gender-wise percentage status of Female Labour Force Participation in Bihar where a major share has been recorded from males during the period. There are a lot of factors responsible for the low female participation rate in the labour force in Bihar. Such as household income, wealth, patriarchal outlook, orthodox believes, social background, safety for women outside the house, lack of proper connectivity to the workplace through roadways or railways, low level education of household Head, social and geographical barriers of the region, etc. Thus, all these factors play a key role in instructing a household's Head to decide whether females will

go outside for work and education or not. These are the main reasons for the low percentage share of females in the labour market. Notwithstanding, the participation rate of Bihari females in the labour force is increasing day by day. It has increased at 14.7 percent in 2022-23 from 2.8 percent of 2017-18; while percentage of males has increased at 47.0 percent in 2022-23 from 45.4 percent of 2017-18. Thus significant changes have been recorded in females' participation as compared to males. This is the outcome of 35 percent horizontal reservation which was brought in 2016, for women in the reserved and unreserved category of each social group.

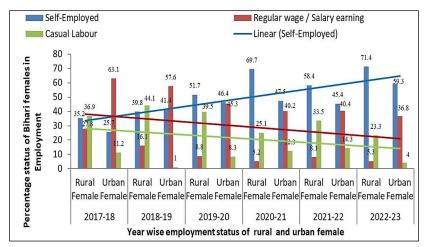


Figure 2: According to Usual Status (PS+SS), Percentage Dispersal of Female Workers by Broad Status in Employment of Bihar during 2017-18 to 2020-21

Figure 2 shows the percentage distribution of female workers in employment in rural and urban Bihar during 2017-18 to 2022-23. It is reflected that a major share of rural females is engaged in self-employment and casual work while urban females are mostly engaged in regular wage or salary earning. The percentage share of urban women in regular wage and salary earning is higher than that of their rural counterparts. In the same way, the percentage share of rural women in casual labour and self-employment is higher than that of their urban counterparts. This indicates that urban females are more engaged in schooling and become educationally sound while rural females are more engaged in household activities. Therefore, more urban females are capable of engaging themselves in regular wage or salary earning in the government or private sector while more rural females are capable of engaging themselves in agriculture and other activities as

casual labour. But, during the period, the percentage share of rural and urban females shows a declining trend in regular wage or salary earning while in the same period, it is showing an increasing trend in self-employment (43). Even, the percentage share of rural and urban females in casual labour has also declined during the period. Thus, this status is the consequence of 50 percent reservation in Panchayati Raj Institutions (village council administration) 35 percent reservation in state government jobs and plan for 33 percent reservation in educational institutions (i.e. Engineering and Medical colleges) of Bihar which significantly impacted the socio-economic status of rural and urban females in Bihar (44). These women's well-being schemes and plans enabled females to enroll in higher education and motivated them to shift from household work or casual work to self-employment or regular employment.

Table 3: According to Usual Status (PS+SS), Percentage Distribution of Usually Working Females by Broad Status in Industrial Sector of Bihar during 2022-23

Industrial Sector	2022-23			
muusti iai sectoi	Rural Female	Urban Female		
Agriculture, forestry and fishing	80.65	20.41		
Mining and quarrying	0	0		
Manufacturing	5.4	15.01		
Electricity, gas, steam and air conditioning supply	0	0		
Water supply; sewerage, waste management and remediation activities	0	1.34		
Construction	1.57	0.71		
Retails and wholesale trade; repair of motor vehicles and motorcycles	6.05	17.44		
Transportation and storage	0	0.04		
Accommodation and Food service activities	0.47	3.94		

T.C	0	
Information and communication	0	0
Financial and insurance activities	0.11	0.29
Real estate activities	0	0
Professional, scientific and technical activities	0.1	1.48
Administrative and support service activities	0.48	0.3
Public administration and defence; compulsory social security	0.01	1.76
Education	3.53	14.82
Human health and social work activities	1.03	7.3
Arts, entertainment and recreation	0	0
Other service activities	0.41	6.87
Households activities as employers; undifferentiated goods and services producing activities of households for own use	0.18	8.28
Activities of extraterritorial organizations and bodies	0	0
Total	100	100

Table 3 shows the percentage of working females in the industrial sector of Bihar. Around 80.65 percent of working rural females is engaged in the agriculture, forestry and fishing sector while around 67.68 percent of urban females are engaged in agriculture, manufacturing, forestry, fishing, retail and wholesale trading, repair of motorcycles, motor cars and education sectors. In rural region, women who belong to socially marginalized groups are more prone to work in agriculture and allied sectors because a major share of rural women are illiterate. Further, lodging and food services, public administration, security, defense, social security, and household activities are key sectors contributing to employment for urban females. These sectors, along with other service activities, engage a significant portion of urban working women. Around 28.15 percent of urban working females are employed in these areas. Furthermore, around 17.58 percent of rural females are also engaged in sectors like education, construction, health and societal work, manufacturing, retail and wholesale trades and repair of motorcycles and motor vehicles but their share is less than that of urban females.

The participation of female workers in the last 6 years in cultivation, forestry, fishing, manufacturing, wholesale and retail trades; repair of motor cars and motorcycles, health and social work, education, households as employers, undifferentiated goods and services producing activities, and other service activities has increased while it has decreased in rest all sectors.

Table 4: According to Usual Status (PS+SS) Percentage Dispersal of Usually Working Female Engaged in the Industry by Enterprise Type in Bihar during 2017-18 to 2022-23

Enterprise Types	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Proprietary and Partnership	49.5	52.6	55.0	67.5	73.5	76.9
Govt./local body/ Public Sector Enterprises	39.0	38.7	33.5	25.2	16.7	18.0
Autonomous bodies	0.5	0.0	0.0	0.0	0.0	0.0
Public/Private limited Company	1.5	0.9	1.8	0.3	2.2	2.5
Cooperative Societies	0.0	0.1	0.0	0.5	2.1	0.0
Trust/other non-profit institutions	0.1	2.3	0.2	0.8	0.1	0.0
Employer's households	3.9	1.1	1.1	1.4	1.8	2.4
Others	5.6	4.3	8.5	4.3	3.6	0.1
Total	100	100	100	100	100	100

Table 4 represents the percentage share of working females who are engaged in the industrial division of Bihar by different types of enterprises. If we peep into the data of 2017-18 to 2022-23, it can be seen that an average around 95 percent of working females are engaged in proprietary, partnership, and public and private sector enterprises. But, the percentage of working females in proprietary and partnership-type enterprises has remained increasing during the period while its share in government or public sector enterprises remained decreasing during the period. After 2019-20, much growth in the percentage share of working females has taken place in proprietary and partnership enterprises while much decline has taken place in the percentage share of working females government or public sector enterprises but a slight growth has been recorded in Govt./local body/ Public Sector Enterprises during 2022-23. This positive outcome might be the result of post-Covid-19 recovery. It is noteworthy that a large number of people lost their jobs during the lockdown period. After the losses of jobs, they might be moved towards proprietary and partnership-type enterprises for livelihood. According to the India Justice representation in the percentage share of women in police, prisons, judiciary, and Legal Aid has increased in the recent past but a major share has been recorded in police.

According to Bihar Economic Survey, a large number of males and females have been recruited as police personnel for different posts. Bihar Police Sub-ordinate Service Commission (BPSSC) and Central Selection Board of Constables (CSBC) have recruited 39727 personnels with 22401 (56.4 percent) males and 17326 (43.6 percent) females during 2018-19 to 2022-23. This recruitment has been made under the police department on various posts like lady constable, driver, dresser, forest guard, mobile squad, home guard constable, prohibition constable, and fireman. Even some

females have also been recruited for officer posts like police Sub-inspector, Steno, Assistant Sub-Inspector, Excise Inspector, Sergeant, Assistant Superintendent Jail and Enforcement Sub-Inspector in Bihar during the period. A large number of females were recruited in 2018 which is more than two times of males. This huge increment after 2016 is the result of 35 percent horizontal reservation for women in government jobs.

Furthermore, several males and females have also been hired as Teachers, Lecturers, Assistant Professors and Junior Engineers by the Bihar Public Service Commission (BPSC), Bihar State University Service Commission (BSUSC) Bihar Technical Service Commission (BTSC), and Bihar State Electronic Development Corporation (BSEDC).

Figure 3 demonstrates the sector-wise distribution of workers in Bihar. Since, the economic system comprises three sectors (i.e. Primary, Secondary, and Tertiary). As it is known that Primary sector deals with agriculture, mining, quarrying, fishing, animal husbandry, poultry farming, forestry. Secondary sector mainly deals with manufacturing, construction, and processing while the Tertiary sector covers a varied range of activities like communication, banking, tourism, transport, insurance, trade, insurance, education, health services, retail, entertainment, etc. According to the Figure 3, the major share of males and females is concentrated in the primary and tertiary sectors as compared to the secondary sector. It meant that people are preferably moving from primary sector to tertiary sector or service sector rather than secondary. If we look at the sector-wise participation of women, it can be seen that 76.5 percent of females are in the primary sector, 7.4 percent of females are in the secondary sector, and 16 percent of females are in the tertiary or service sector. It is known that the tertiary sector of the economy is the emerging and grooming sector.

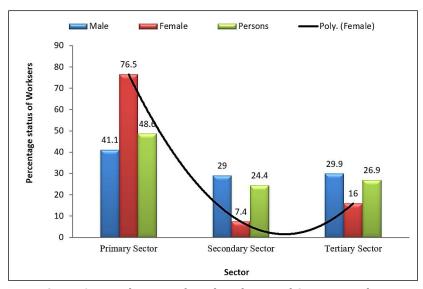


Figure 3: Distributions of Workers by Broad Sectors in Bihar

Growth in female labour force participation in Bihar might be the outcome of horizontal reservation, social welfare and other women empowerment schemes which might encourage skilled females to participate in service sector. The polynomial plot provides the U-shape curve which shows the labour distribution trend in Bihar.

As economy develops, people move from primary to secondary and then tertiary sector but females give priority to work in tertiary sector rather than secondary sector (45). This priority of women to work in the tertiary or service sector might be due to their physical appearance, flexible work arrangement and less physically demanding work.

Table 5: Gender Wise Status of Trained and Employed Candidate by Rural Self-Employment Training Institutes (RSETIs) of Bihar during 2018-19 to 2023-24

Financial Year		e No. of Candid It Training Inst	No. of Trained Candidates Received Employment			
	Male	Female	Transgender	Total	Absolute	Percentage
2018-19	9965	16705	18	26688	19277	72.2
2019-20	10300	14650	11	24961	18486	74.1
2020-21	6106	8762	0	14868	11137	74.9
2021-22	8439	12828	1	21268	14378	67.6
2022-23	11931	16361	0	28292	22769	80.5
2023-24	7998	8850	0	16848	8377	49.7

Table 5 shows the gender-wise status of trained and employed candidates by Rural Self-Employment Training Institutes (RSETIs) of Bihar during 2018-19 to 2023-24. If we consider female participation, we will see more females participating in the Rural Self-Employment Training Programme as compared to their male counterparts. This overall table reveals the

significant contribution of RSETIs in training and empowering women. Apart from some fluctuations, data shows a positive trend in providing job opportunities to trained candidates. This positive trend is the consequence of various socio-economic schemes launched for women's empowerment and training.

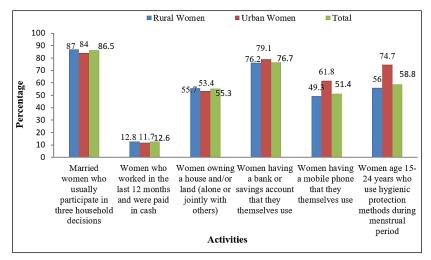


Figure 4: Percentage Participation of Women in Different Household Activities in Bihar

Figure 4 shows the percentage participation of women in different household activities in Bihar. Around 86.5 percent of total married women actively take part in three household decisions namely decisions about their health care, making key household procurements, and visiting their family or kinship. Furthermore, around 76.2 percent of rural women and 79.1 percent of urban women are having savings bank accounts which is being operated by themselves. Even around 55.3 percent of women own a house or land while 51.4 percent of women have mobile phones which are being used by them. These above-mentioned statuses are the consequence of various social welfare and women empowerment programs which have been implemented by the government of Bihar to empower them.

In the case of property transfer, there are differentiated stamp duty and registration charges

for males and females in Bihar. If property transfer is being transferred from a male to female, stamp duty will be charged at the rate of 5.7 percent in contrast if it is being transferred from a female to a male then stamp duty will be charged at the rate of 6.3 percent (Revenue and Land Reforms Department, Government of Bihar). Therefore, these differentiated rates stimulate most of the people to register purchased land by the name of his wife or other close related female members of household.

Apart from aforesaid facilities or amenities, different kind of direct benefit transfers from central and state governments to the account of beneficiaries have also motivated people to open a bank account in the name of a female family member. Moreover, various awareness programs have also substantially impacted females having age between 15 to 24 years.

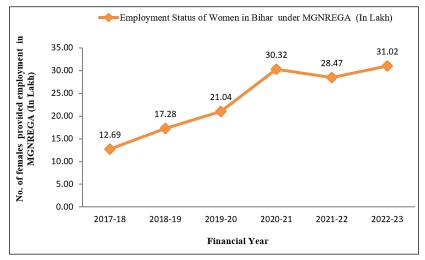


Figure 5: Employment Status of Women under MGNREGA

Figure 5 shows the employment status of women under Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) during 2017-18 to 2022-23. The status of providing employment to women under MGNREGA has remained increasing during 2017-18 to 2022-23 and showing a positive trend. However, a sharp change in providing employment has been recorded after 2019-20. This sharp change is the result of lockdown during the Covid-19 pandemic. Nevertheless, the highest number of employment has been generated and provided to women in 2022-23 which is around 31.02 lakhs. This is due to Covid-19 which has closed most of the economic activities and made people jobless. At that time government injected money under MGNREGA to accommodate especially unskilled and semiskilled people and provide a platform for livelihood. Thus this scheme has played a significant role in providing livelihood to unskilled women by providing employment opportunities and empowering them in times of hardship.

Socio-Economic Factors That Determines Less Participation of Women in the Labour Force

Nature of Occupation: The nature of occupation is also responsible for less female participation in the labour force. Every occupation may not be conducive for women due to social expectations, physical limitations, and safety concerns. Some occupations may be more suitable for men and some for women. Work related to teaching, nursing, banking, and insurance may be preferably good for women. But after the introduction of horizontal reservation for women in government jobs and educational institutions, a large number of females have been recruited in the administration and education of Bihar.

Income, Caste and Education: Household income, caste, and education are also responsible for the lower participation of females in the labour market. Females from lower castes and lower-income households are more likely to drop out from the schools and colleges. It may lower the opportunity of her employability. Moreover, there is a social stigma that prevailed in the male-dominated society; middle-income groups in Bihar are still in this trap that 'how females could go outside the home to work'. This mindset is also responsible for lower female participation. Even it is more among some upper castes who have low

levels of educational attainment. Due to this, they are less rational and procrastinate to adopt change in society. They think that the work of females outside the four walls of a house is insulting to them. Thus, people with this mindset have kept 50 percent of the society in dark by keeping them jailed in their own houses. But the introduction of horizontal reservation and various women's wellbeing programmes has positively impacted female participation in the workforce.

Safety and Social Supports: Women's safety is another reason for the lower participation of females in the labour force. There are a lot of strict rules and regulations for women's safety, however incidents related to molestation and rape are taking place. The day-to-day news of misbehaving, snatching, verbal sexual harassment, sexually assaulting, abduction, kidnapping, and gang rape made people afraid. It has compelled a guardian or household Head to think hundred times before sending his daughter, daughter-in-law, and wife, outside the home. According to the United Nations International Children's Emergency (UNICEF) there is social discrimination between girls and boys (46). Here, boys have more independence than girls to move and make decisions (47). Even, decisions in marriage, education, social kinships or relationships for females are also decided by males. Due to various socio-economic barriers only a quarter of women join the formal workplace while rest are either working in kitchen or in house of four walls.

Patriarchal Thinking and Social Stigmas: Patriarchal thinking and social stigmas are deeply deep-rooted in cultural and social customs. It is believed that males are superior to females, and subjugate women at various social, economic, political, and cultural levels. Even it imposes masculinity and femininity character stereotypes in society which strengthens the inequitable power relations between males and females (48, 49). Social stigma is based on culture, race, gender, socio-economic class, age, sexual orientation, physics, and body image. These factors created an unfavorable environment for women and discouraged the females to take part in the labour force. This might also be the reason for less participation of women.

Schemes Launched for Social Welfare and Women Empowerment: The government of India and the State of Bihar have implemented various

social welfare and women's well-being schemes for emancipation of women from patriarchal traps and empowered them. The government of India has also implemented several national-level schemes to empower women and promote their well-being. Some initiatives like the Anganwadi Services (Community childcare service) (1975) were launched to provide early childhood care and development for children, pregnant women, and lactating mothers. Support to Training and Employment Programme for Women (1986) was launched to support the marginalised, assetless, rural and urban women. Nari Shakti Puraskar (Women power award) (1999) was launched to award women for their outstanding contributions in the field of economic and social empowerment of women. Kasturba Gandhi Balika Vidyalaya (Kasturbha Gandhi Girl's School) (2004) was started to bridge gender gaps, improving the literacy rate of girls and reducing dropout rates. Beti Bachao Beti Padhao (save daughter, teach daughter) (2015) emphasizes the importance of girls in society. Mahila E-Haat (Women E-market) (2016) launched for women entrepreneurs to provide a space to showcase and sell their products online. Sukanya Samriddhi Yojana (Girl's prosperity scheme) (2015) is a high-interest savings account which can be opened by parents for their daughters to secure their education and marriage expenses in future. One Stop Centre (2015) was launched to support women affected by violence. Pradhan Mantri Mahila Shakti Kendra (Prime Minister Women power centre) (2017) focuses on accessing government schemes and services to empower rural women through community participation and support. National Creche Scheme (2020) brought childcare facilities to children of working women. Women's Reservation Bill (2023) brought to uplift women's representation in legislation and decision-making. Apart from the aforementioned national level schemes, the Government of Bihar has also launched several state-level schemes to empower women and promote gender equality in Bihar. Schemes or acts like the Bihar State Women Commission (1999) has been constituted for the protection of women and advise them to participate in the socio-economic development of women in Bihar (50). Mukhyamantri Balika Cycle Yojana (Chief Minister Girl's cycle scheme) (2007) was launched to reduce the drop-out rate in girls

after middle school and facilitate them regular studies. Jeevika (Livelihood) (2007) is a World Bank-aided Bihar Rural Livelihoods Project launched for integrated development and empowerment of the women belonging to poor and vulnerable sections of society. Mukhyamantri Balika Poshak Yojana (Chief Minister Girl's uniform scheme) (2012) started to support the purchase of school uniforms so that girls and their guardians could be attracted towards schools (51). Akshar Anchal Yojana (teach the illiterate women scheme) (2009) is launched to provide basic education to women and literate them. Mukhyamantri Balika Protsahan Yojana (Chief Minister Girl's encouragement scheme) (2019) was launched to provide a financial incentive of Rs 10000 to those girls who have secured first division in tenth class. Scheme Hunar (Skill) is launched for skill development through vocational training and Auzar (instrument) is launched to focus on supporting women of minority, STs, SCs, and EBCs communities to start self-employment and to gain self-reliance (52).

Apart from the above, some other national and state-level schemes like Janani Bal Suraksha Yojana (Mother and Child protection scheme), Mukhyamantri Kanya Vivah Yojana (Chief Minister Girl's marriage scheme), Mukhyamantri Kanya Utthan Yojna (Chief Minister Girl's upliftment scheme), Pragati and Saksham Scholarship (Progress and Competent scholarship), Begum Hazrat Mahal National Scholarship, Bihar state post matric scholarship and Indra Gandhi scholarship for single girl child are also in operation. The aforementioned programmes have played a significant role in bringing girls to the school door from the four walls of the house, empowering them and enabling them to take part in the labour force (53, 54).

Conclusion

The earlier status of women was within the four walls of the home under the veil due to the household's conservative thinking and less awareness of their socio-economic and political rights. However, after the introduction of various kinds of women empowerment schemes, societies have been changing. Enrollments of women in higher education have improved. Educated women are more prone to participate in the labour market. Educated young women are also taking part in the

economic system through the service sector for better job prospects.

Since India's female labour force participation rate is continuously declining and worryingly low. But, in the case of Bihar, evidence points out increasing female participation in the workforce which is much more than that of the national average in many fields, and women are likely to participate in the tertiary sector after the primary sector. Further, the percentage share of female workers has also increased as self-employed and casual labourers in Bihar. Even engagement of women under MGNREGA has also shown an increasing trend which has been accelerated in the recent past. This good participation occurred through the lens of 50 percent reservation in Panchayati Raj Institutions (village council administration), 35 percent horizontal reservations in government jobs, a plan of 33 percent women reservation in engineering and medical colleges of the state. Various social welfare schemes launched by central and state governments for women are also effective. But this is not enough to empower and safeguard women. Cases related to molestation, domestic violence, sexual assault, digital violence, femicide, honour killing, human trafficking, child marriage, and exploitation by their employer are still happening in the society. So, to eliminate the risk of violence against women and girls, and to increase their participation in the workforce and emancipate women from patriarchal orthodox thought, the government should focus on the policy to establish women's empowerment cells in every educational institution. Further, a women's studies paper should also be added to the curriculum and make compulsory from the very beginning to change the male-dominated mindset of society. This would not only check the violence against women and girls in the state but also change the mindset of patriarchal control. On the other hand, this would increase the participation of females in the workforce and give opportunities to the nation to take the benefits of 50 percent unused fertile brains to boost and sustain the growth process which has long-term consequences on poverty and unemployment reduction.

Abbreviation

None.

Acknowledgement

We would like give my special thanks to Dr. Nawal Kishore Prasad, Senior Lecturer (English), who helped us in checking the grammatical error and convert the non-English text into English language.

Author Contributions

Ramun Prasad: wrote the main manuscript. All the authors contributed equally to this work.

Conflict of Interest

The authors declare that they have no conflict of interest.

Ethics Approval

Not applicable.

Funding

No funding was received for conducting this study.

References

- Chandramouli C, General R. Census of India 2011. Provisional Population Totals. New Delhi: Government of India. 2011:409-413. https://censusindia.gov.in/nada/index.php/catalog/42611
- NITI Ayog National Multidimensional Poverty Index: A Progress Review. 2023. https://www.niti.gov.in/sites/default/files/2023-08/India-National-Multidimentional-Poverty-Index-2023.pdf
- Government of Bihar. Bihar Economic Survey 2023-24. Department of Finance. 2024. https://state.bihar.gov.in/cache/12/Budget/Budge t/ECONOMIC%20ENGLISH.pdf
- Ramachandran V. Engendering development: Lessons from the social sector programmes.1998;5(1). https://doi.org/10.1177/097152159800500104
- Priya A. and Harad T. Providing horizontal quota: the Bihar way, The Hindu. 2021 August, 04. https://www.thehindu.com/opinion/oped/providing-horizontal-quota-the-bihar
 - way/article35708537.ece
- Tata Trusts. India Justice Report: Ranking States on Police, Judiciary, Prisons and Legal, Tata Trusts, New Delhi, India. 2021. https://www.tatatrusts.org/
- 7. Beechey V. On patriarchy. Feminist Review. 1979 Nov;3(1):66-82.
- 8. Chakravarty D. Capturing female work patterns in rural Bihar through NSS and TUS: A methodological note. Indian Journal of Human Development. 2015 Jul;9(2):269-84.
- 9. Islam TT, Kearns M, Mitra S. Patriarchy and Child Well-Being: Evidence from India. Journal of

- Economics, Race, and Policy. 2024 Dec;7(4):294-308
- 10. Government of Bihar. Bihar Economic Survey 2021-22. Department of Finance. 2022. https://www.adriindia.org/centre/report_details/b ihar-economic-survey-2021-22-english
- 11. Das M. Child Marriage: A Blow to Human Dignity and Women's Liberty. Space and Culture, India. 2023;10(4):1-5.
- 12. Mahapatro SR. Impact of labour migration on socioeconomic position of left-behind women in Bihar. The Indian Journal of Labour Economics. 2018 Dec 13;61(4):701-18.
- 13. Prasad R, Behera DK. Challenges for employment from covid imported reversed migration: an empirical study of the indian state of bihar. Regional and Sectoral Economic Studies. 2024;24(1):41-56.
- 14. Priyadarshini A. Tempering patriarchy and reinventing gender: Impact of male outfow on women in rural Bihar. Journal of Migration Affairs. 2018 Sep 1;1(1):111-21.
- 15. Roy A, Nangia P. Impact of male out-migration on health status of left behind wives--a study of Bihar, India. Inmeeting of the International Union for the Scientific Study of Population 2005 Jul:18-23. https://ipc2005.popconf.org/papers/51906
- Nandi D, Sarkar S. Seasonal migration as a livelihood strategy of women agricultural labourers in Soul Ponamara Mouza of Hirbandh block, Bankura district, West Bengal. Space Cult India. 2020;8(3):71-85.
- 17. Bhatt W. The gender dimension of migration in India: The politics of contemporary space in Orissa and Rajasthan. Development in Practice. 2009 Feb 1;19(1):87-93.
- 18. Bjorkert ST. Women as arm-bearers: Gendered caste-violence and the Indian state. Womens Stud Int Forum. 2006 Sep 1;29(5):474–88.
- 19. Neetha N. Making of female breadwinners: Migration and social networking of women domestics in Delhi. Economic and Political Weekly. 2004 Apr 24; 39(17):1681-8.
- 20. Sabbir MR. Women's labor market participation in Bangladesh: A logistic regression analysis. Journal of Social Economics Research. 2022;9(1):1-9.
- 21. Bhattacharyya A, Haldar SK. Does U feminisation work in female labour force participation rate? India: A case study. The Indian Journal of Labour Economics. 2020 Mar;63:143-60.
- 22. Chatterjee D, Sircar N. Why is female labour force participation so low in India?. Urbanisation. 2021 Sep;6(1_suppl):S40-57.
- 23. Jejeebhoy SJ, Santhya KG. Preventing violence against women and girls in Bihar: challenges for implementation and evaluation. Reproductive health matters. 2018 Jan 1;26(52):92-108.

- 24. Datta A, Satija S. Women, development, caste, and violence in rural Bihar, India. Asian Journal of Women's Studies. 2020 Apr 2;26(2):223-44.
- 25. Government of India. Female Labour Utilization in India, Directorate General of Employment. 2023. https://dge.gov.in/dge/labour-and-employmentstatistics
- 26. Afridi F, Dinkelman T, Mahajan K. Why are fewer married women joining the work force in rural India? A decomposition analysis over two decades. Journal of Population Economics. 2018 Jul;31:783-818.
- 27. Barhate B, Hirudayaraj M, Dirani K, Barhate R, Abadi M. Career disruptions of married women in India: An exploratory investigation. Human Resource Development International. 2021 Aug 8;24(4):401-24.
- 28. Karlekar H. Miles to Go for a Fair Representation. Indian Journal of Gender Studies. 1996 Sep;3(2): 275-81.
- 29. Ban R, Rao V. Tokenism or agency? The impact of women's reservations on village democracies in South India. Economic Development and Cultural Change. 2008 Apr;56(3):501-30.
- 30. Pande RP, Namy S, Malhotra A. The demographic transition and women's economic participation in Tamil Nadu, India: A historical case study. Feminist Economics. 2020 Jan 2;26(1):179-207.
- 31. Klasen S, Pieters J. What explains the stagnation of female labor force participation in urban India? The World Bank Economic Review. 2015;29(3):449-78.
- 32. Mehrotra S, Parida JK. Why is the labour force participation of women declining in India? World Development. 2017 Oct 1;98:360-80.
- 33. Sarkar S, Sahoo S, Klasen S. Employment transitions of women in India: A panel analysis. World Development. 2019 Mar 1;115:291-309.
- 34. Government of Bihar. The Bihar Gazette. Patna. Government of Bihar, 2016 Jan 20; Gazette No.:(60):1-2.
 - https://egazette.bihar.gov.in/SearchGazette.aspx
- 35. Datta A, Rustagi P. Status of women in Bihar: exploring transformation in work and gender relations. New Delhi: Institute for Human Development. 2012 Jan 1.
 - https://www.ihdindia.org/rpb/pdf/Datta-and-Rustagi-2012.pdf
- 36. Sahrakorpi T, Bandi V. Empowerment or employment? Uncovering the paradoxes of social entrepreneurship for women via Husk Power Systems in rural North India. Energy Research and Social Science. 2021 Sep 1;79:102153.
- 37. Robeyns I. Sen's capability approach and gender inequality: selecting relevant capabilities. Feminist economics. 2003 Jan 1;9(2-3):61-92.

38. Waring M. If women counted: a new feminist economics. Review of Income and Wealth. 1992 Jun; 38(2):237-243.

- 39. Folbre N. "Holding hands at midnight": The paradox of caring labor. Feminist economics. 1995 Mar 1; 1(1):73-92.
- 40. Amine LS, Staub KM. Women entrepreneurs in sub-Saharan Africa: An institutional theory analysis from a social marketing point of view. Entrepreneurship and Regional Development. 2009 Mar 1;21(2):183-211.
- 41. Thioune FK, Albertin G, Kazandjian R, Wang T. COVID-19 and Gender Inequality: Impact in Southern Africa. Gender Equality and Economic Development in Sub-Saharan Africa. 2024 Apr 11:81. https://books.google.com/books?hl=en&lr=&id=X68CEQAAQBAJ&oi=fnd&pg=PA81&dq=Chapter+4:+COVID-
 - 19+and+gender+inequality:+impact+in+Southern+ Africa&ots=i6uCWyMwQo&sig=n8hKZhy4bm_Ev0C aw_Owgao5740
- 42. Fukui M, Nakamura E, Steinsson J. Women, wealth effects, and slow recoveries. American Economic Journal: Macroeconomics. 2023 Jan 1;15(1):269-313.
- 43. Jose A, Dutta M. Held back by homes: effects of domestic work on occupational choices of women in India. Indian Economic Review. 2024 Dec; 59(2): 559-99.
- 44. The Bihar Panchayat Raj Act, 2006. https://panchayat.gov.in/en/document/the-bihar-panchayati-raj-act-2006/
- 45. Browning HL, Singelmann J. The emergence of a service society: demographic and sociological aspects of the sectoral transformation of the labor force in the USA. Springfield (VA): National Technical Information Service. 1975 June 30. https://eric.ed.gov/?id=ED131193
- 46. UNICEF India. Accelerating progress and opportunities across India for every girl and every boy. https://www.unicef.org/india/what-we-do/gender-equality
- 47. Datta A, Sinha S. Gender disparities in social wellbeing: an overview. Indian Journal of Gender Studies. 1997 Mar;4(1):51-65.
- 48. Rawat PS. Patriarchal beliefs, women's empowerment, and general well-being. Vikalpa. 2014 Apr;39(2):43-56.
- 49. Pani N. Women and Their Interests in Rural India. Indian Journal of Gender Studies. 2023 Oct;30(3): 288-308.
- 50. The Bihar State Commission for Women (Amendment) Act, 2024. The Bihar Gazette. Patna. Government of Bihar, 2024 Mar 14; Gazette No.:(252):1-4.
- 51. Government of Bihar. Order No. 09/E0/77/2012/691. Dated: 11/12/2014.

- Education Department. 2014. https://state.bihar.gov.in/educationbihar/cache/1 8/LetterPdf/11Dec201441651.pdf
- 52. Ahmad F. After Hunar, girls equipped with auzar. Time of India. 2009 Aug 07. https://timesofindia.indiatimes.com/city/patna/aft er-hunar-girls-equipped-with-auzar/articleshowprint/4864090.cms
- 53. Kumar N. Prioritising Quantity over Quality: Lopsided Approach to Girl Child Education in the Bihar Government's Schemes. Indian Journal of Gender Studies. 2021 Oct;28(3):346-68.
- 54. Khan H, Hussain F, Mazhar S. Role of Government Credits Scheme in Supporting Women Entrepreneurs in India: An Empirical Study. International Research Journal of Multidisciplinary Scope (IRJMS). 2024;5(1):1-3.