



# Analysis of Female Workforce Participation Rate in the North-Eastern Region of India

Sabina Yasmin

Research Scholar

**Abstract:** Contribution of women in Indian economy is very distinct especially in rural India. Role of women in workforce participation are significantly different due to different socio-economic condition and different culture and demography. The northeastern states are primarily agricultural states. Higher proportion of women in this region is mainly engage in agriculture and its allied activities. Growth of work participation rate of women is very slow over the two decades. There is inter-state variation in North-Eastern region in case of growth of workforce participation of rural and urban women. The paper attempts to analyze the trend of female workforce participation in the North-Eastern states. Another objective of paper is to find the relationship between female literacy rate and female workforce participation rate. We have used secondary data from the decennial Population Census of India 1991, 2001 and 2011 as a source to collect data on workforce participation. The paper evidenced that there is no positive relationship between female literacy rate and female workforce participation rate. There is a widespread variation in North-Eastern states in relation with this two variables. Study shows that rural sector has a better female workforce participation rate than that of urban sector. We have found that there is a huge gap in rural and urban female's workforce participation. Most of the female workers are marginal workers and increase in female workforce is the result of remarkable increase in marginal workforce in both rural and urban areas. Although we find increase in growth trend, it is not satisfactory for north-eastern states as almost all of the northeastern state experienced less than 40 percent female workforce participation.

**Keywords:** Female Workforce Participation Rate, Female Literacy Rate.

## Introduction:

India is a country with vast population with a recent estimate of 1.38 billion person. According to world bank report out of the total population women constitutes 48.04% in 2020. In such a situation, economic development of a country unquestionably depends on the participation rates of female in labour market but in India less than one-fourth(20.3%) of female population participated in the labour market as of 2020 as compared to 76.0 of males.. Women account for only 19.9% of total labour force in India. That is why policy formulation of a country has given more attention towards development of women. Women in North-Eastern states also constitute almost 49 % of total population with about 34% of female working population according to 2011 census which is better as compared to national average. Therefore, there is a perception that the status of women is better in the states of the North Eastern Region of the country in comparison with the status of women in rest of India . Basic statistics of North-East 2015 reported that the per capita income of the North-Eastern states at current prices (2013-14) is Rs 49959 lakhs which is lower than that of all India level. The NER of India has been considered as a backward region in terms of growth in per capita income. However, some states namely Sikkim, Nagaland and Arunachal Pradesh have experienced a higher per capita income than India. In north-east, majority of female population are engaged in the agriculture and allied sector such as handloom sector. This sector directly addresses women empowerment. According to the Fourth All India handloom census of 2019-20, this sector engaged over 23 lakhs female weavers and allied workers. Female workforce participation in allied activities in this sector is twice as much as higher than their male counterpart. But, these sectors have not contributed to economic growth to a large extent. A high number of women have left the labour force due to mechanization and transformation of the agriculture sector ( Kaur and Jaze 2019). Various factors may influence the participation of women in labour market, it may be guided by necessity in one hand, or be result of education attainment and available employment opportunities on the other hand. In terms of the first perspective, increased participation of women is often observed during times of economic crisis, mainly in response to a declining household income on account of unemployment in the household (Malakar 2017). One of the pre-requisite for the development of women empowerment is better education. Education levels of girls and young women have improved considerably in many developing countries in recent decade. However, the remaining disparities within countries play a critical role in determining labor market outcomes for women. The most uneducated women in the poorer countries are most likely to participate in marginal and informal low paid jobs. In informal sector the status of women is more vulnerable (Das 2013). So, the widespread entry of women into labour market does not necessarily imply a robust participation of women in labour market and in economic development. Economic well-being and economic welfare of woman may not improve if they are engaged in low-paying distress driven work (Srivastva and Srivastva, 2009). Once women have more than a secondary school education, higher wages encourage women to join the labor force, particularly if appropriate jobs are available (Verick 2014). Contradictions may exist regarding relationship between educational attainment and labour participation of females in India. Higher education may leads to higher female workforce participation, increasing the possibilities for women to find a job. The decline in fertility rate

also attributed to more concentration on work. In order to do so, policy makers should promote higher education and prepare women to meet the labour demand requirements (Kaur and Jaze 2019). However, better education or enrolment in school may not necessarily not leading to increased employment for rural area (Salve 2019). Women from higher economic status families are less likely to work than women from lower income families (Desai and Joshi 2019). Women in India still have been facing barriers and limitations to have a decent job. Socio-cultural constraints such as lack of freedom of movement, changing norms of society, patriarchal nature of society, rural-urban migration, fertility rate, marital status, security issues at workplace, distribution of wages and mechanization also have impact on female workforce participation. There is a need for reducing social restrictions for women which could help in transformation of labour market and Indian economic development.

The paper attempts to examine the pattern of workforce participation of women in the North Eastern Region in comparison with the national average. The present study is organized in the following manner. Section 1 presents introduction. Section 2 discussed the review of existing literature on participation of female in workforce. Section 3 provides Background of North-Eastern Region (NER). Section 4 and section 5 introduce objective and methodology of study respectively. Section 6 provides a trend of composition of Workforce participation in NER and India. It is divided into three sub-sections which comprises (a) Composition of Female literacy rate and Female Workforce Participation Rate in NER and India; (b) Composition of rural-urban female workforce participation ; (c) Composition of female main and marginal workers of North –Eastern States and India. Section 7 concludes with policy suggestions.

### **Review of literature**

It has well studied in the literature that there are number of factors which affected the female labour force participation rate (FLPR).

Saikia and Mazumdar (2015) made an attempt to study the socio-economic determinants of women labour force participation among the Tiwa tribe in Marigaon and Nagaon district of Assam, found that there is a positive relation between level education and female work participation. Higher the level of education higher will be the probability to participate in workforce. Another determinant, household size also has positive impact on women's workforce participation.

Desai and Joshi (2019) studied about the paradoxical situation of declining female labour participation and increasing economic growth using data from NSSO and Indian Human Development Survey for 2004-05 and 2011-12 and found that it happened due to the decline in rural female work participation.

Study of Mawkhlieng and Algur (2021) on North-Eastern states using 68<sup>th</sup> NSSO data found that work participation among the rural population is higher than that of their urban counterpart and found that work participation was higher among the working age population, which later declined when approaching the elderly age group. Persons living in smaller households were active in work

participation. Also persons who reported no landholdings or landless were found to have higher participation levels.

Rangarajan et al (2011) examined the trend of employment and wages as per the 66 round of the National Sample Survey Organization found that in a long period of time increase in income possibly led to large withdrawal of women from the labour force and withdrawal of rural female labour force causes decrease in female labour force participation in India.

The study of Sanghi et al (2015) on rural female labour force participation in India based on NSSO data found that the structural transformation of the economy and its impact on female workforce participation. That is, when economy transforms from an agricultural economy to an industrial economy, a declined trend in participation of female labour force is observed.

Kaur and Jaze (2019) revealed that female workforce participation rate and economic development are negatively correlated. With increase in GDP per capita, female workforce participation is found to be declined. The study confirmed that India is experiencing a decline in the female workforce participation due to urbanization and mechanization of agriculture. The economic growth also leads to higher income, that can make women leave their jobs in agriculture, to concentrate on higher education and try to find better jobs.

Verick (2014) attempted to study about the U-shaped relationship between economic development and women's participation in the labour force in developing countries. When a country is poor, women work out of necessity, mainly in subsistence agriculture or home-based production. As a country develops, economic activity shifts from agriculture to industry, which benefits men more than woman. Mechanization have a negative impact because males workers are preferred over female workers when it comes to machinery work (Garces-Ozanne and Singh, 2017).

Kapsos et al (2014) estimated the effect of increased attendance in education and increased household consumption levels on female participation in India explained that the general increase of the education in the short run have a negative impact on the Female workforce participation. An increase in the household income also has a negative impact on women participation as women become economically inactive focusing more on household duties and child care.

Chaudhari and Verick(2014) studied the female labour force participation in south –east Asia based International Labour Organization data explained that the movement of workers out of agriculture and into manufacturing and services and the migration of people from rural to urban areas and increasing education, falling fertility rates and other shifting socio-economic drivers of participation and, hence, have had major implications for the role of women in society, especially in the context of the labour market.

Kamtam (2018) examined the effect of female literacy rate on female workforce participation rates in India based on India Human Development Survey (IHDS) data. The regression model showed a negative relationship between the average labor force participation and the years of education. Education is not only the one factor but there are many other factors which also affect labor force participation among females.

### **Background of North-Eastern States :**

The North-East of India ( also known as North-Eastern Region) is situated at the North-Eastern Himalayas sub-region of India. It comprises of 8 (eight) States namely Assam, Arunachal Pradesh, Meghalaya, Manipur, Mizoram, Nagaland and Tripura and Sikkim (which was included later in 2002). The entire region is connected with the rest of the country through a narrow strip (called the Chicken's Neck) in West Bengal linking Assam. The region shares an international border of 5182 kilometres with its several neighbouring countries. The region is bounded by Tibet and China in the north and east, Bangladesh in the south, Burma in the south-east and Bhutan in the west. The north-eastern region is separated from China by the Mac-Mohan line. According to 2011 census population of entire north-Eastern states is 45587982 (approximately 45 million), with which represents 3.1% of total Indian Population (1,210 million) , with 174 sq km density of population with 74.48 percent of literacy rate. Sex ratio of the region is 956 per 1000 males. In terms of geographical size, the region covers an area of 2,62,179 sq. km which is approximately 8% of total size of India. The North-Eastern Council (NEC) is constituted in 1971 to act as an important development agency for promoting socio-economic development of entire North-Eastern Region. Sikkim formed part of the North Eastern Region as the eighth state in 2002. Among the north-eastern states Assam has the largest number of population and Sikkim has the lowest number of population. The north-eastern region is a great example of unity in diversity as it is home of different tribal and ethnic groups with different culture, languages and religions including Hindus, Muslims , Christians . States like, Arunachal Pradesh, Meghalaya, Mizoram and Nagaland are primarily inhabited by tribals with a certain level of diversity among the tribes.

The entire North-Eastern region is rich in its culture, natural resources, flora and fauna with forest area of 143360sq km. It is the largest reservoir of biodiversity not only of India but also of the whole world. The landscape, the range of communities and geographical and ecological diversity make these states quite different from other parts of the country. Around 98 per cent of the boundary of these states has international borders. Surrounded by hills and beautiful rivers, these states fall in the category of eastern Himalayan ranges and Patkai-Naga hills along with Brahmaputra-Barak river systems and valley plains. The hills and basins are a mixture of mountain ranges, plateaus, low hills and valleys. The region has remained isolated from the rest of the country due to lack of proper connectivity and results in failure of securing equal benefits in the process of development. In spite of having high development potential of resource based industries, the economy of the North-eastern Region mainly concentrated only on agricultural activities.



## Objectives of this study:

The main objective of the paper is to do analysis of the female work participation rate in North-Eastern States India, to make comparison of the female workforce participation of last three census, to find the relationship between female literacy rate and female workforce participation rate and to analyze the variation in female work force participation in rural and urban areas of the North-Eastern states. This could give us a broad idea of the participation of women of the North-Eastern states in the labour market.

## Methodology :

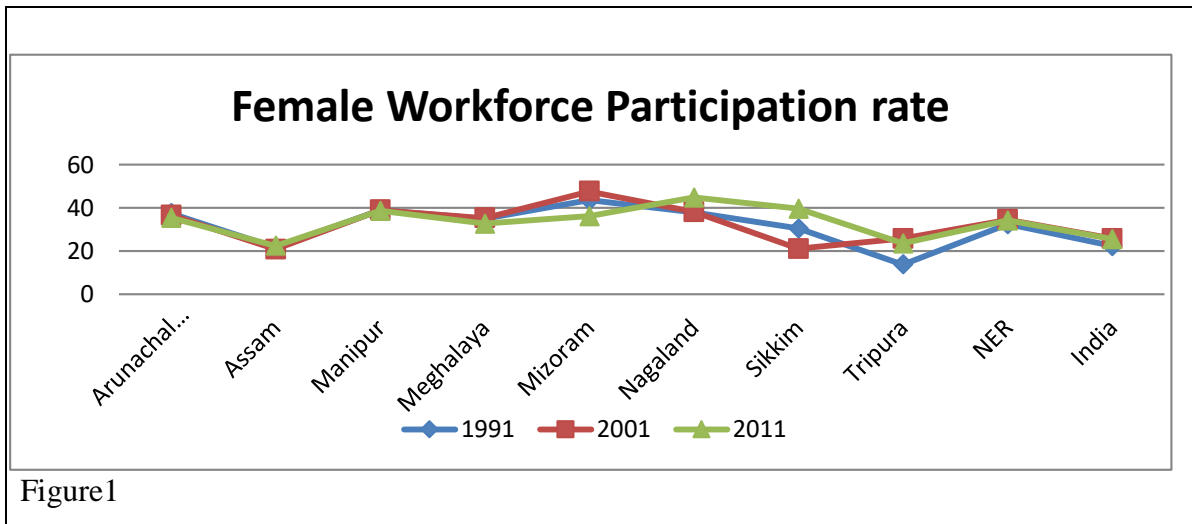
The present paper is based on the secondary data. The data are mainly collected from the Census of India reports 2011, Registrar General of India and Basic Statistics of north-eastern India to understand the status of women in the North Eastern states and India. Various indicators have been used such as Female Literacy (FL), Sex ratio, Female Workforce Participation Rate (FWPR) and Female Workforce participation in Rural-Urban category, Household size etc. here, we have used regression model to test the effects of some selected factors on female workforce participation rate.

## Female workforce Participation Rate:

ILO (International Labour Organization) defines Labour force participation rate as “the proportion of the population ages 15 and older that is economically active: all people who supply labour for the production of goods and services during a specified period”, The female work force participation rate is defined as the percentage of female engaged in the total female population of a state or country. In other way, it provides an indication of size of supply of economically active female population who participated in the labour market.

## Trend of Female workforce participating in North-Eastern Region (NER) since 1991 to 2011:

The socio-political and economic changes that have experienced in the recent decades have brought a significant changes in the status of women in the North-Eastern Region (Pegu 2015) . If we examine the employment level of women in the north eastern states it has been found that all the North eastern region except Tripura and Assam have experienced a higher rate female workforce participation as compared to national level (Table 1). The states of Nagaland , Sikkim and Assam have experienced an increased female work participation and Arunachal Pradesh, Manipur , Meghalaya, Mizoram and Tripura experienced decline in Female Workforce participation in the last census of 2011. From the table it is seen that FWPR in Arunachal Pradesh has been continuously declined. From the table has been evident that FWPR in Nagaland during the period 2011 turned out to be 44.7, which is highest amongst all the Northeast Indian states. Mizoram has also a trend of decreasing female work participation. The table shows that in Mizoram the ratio was 47.5% in 2001 and it declined to 36.2% in 2011 In case of Manipur, it is found that it has continuously maintained the same level of FWPR but it slightly declined in 2011. Overall the North-



Eastern region have experience higher FWPR as compared to the national average.

Figure 1 shows the trends of female workforce participation in North-Eastern states and India for period 1991, 2001 and 2011. Nagaland and Sikkim have experienced higher growth of work participation but Manipur is almost remained the same. Assam has experienced decline in work participation in 1991-2001 but slightly increased in work participation from 2001 to 2011

**Table 1:**

**Female Workforce Participation Rate of North-Eastern states and India ( in Percentage):**

States	1991	2001	2011
Arunachal Pradesh	37.5	36.6	35.44
Assam	21.6	20.8	22.46
Manipur	39	39.02	38.56
Meghalaya	34.9	35.2	32.67
Mizoram	43.5	47.6	36.16
Nagaland	38	38.06	44.74
Sikkim	30.4	21.08	39.57
Tripura	13.8	25.7	23.57
NER	32.47	34.57	34.16
India	22.3	25.7	25.51

Source: Census of India 1991, 2001 and 2011

**Table 2:**

**Female Literary Rate of North-eastern States and India**

States	1991	2001	2011
Arunachal Pradesh	29.7	43.5	59.57
Assam	43	54.6	67.27
Manipur	47.6	60.5	73.17
Meghalaya	44.9	59.6	73.78
Mizoram	78.6	86.7	89.4
Nagaland	54.7	61.5	76.69
Sikkim	46.7	64.4	76.43
Tripura	49.6	64.9	83.15
NER	44.9	58.03	70.26
India	39.29	53.67	65.46

Source: Census of India 1991, 2001 and 2011

### a) Female Literacy Rate and Female Workforce Participation Rate (FWPR):

The female literacy and FWPR of NER and India are presented in Table 2 using Census 2011 shows that there is an overall improvement in literacy rate over the two decades (1991-2011). By comparing table 1 and table 2 it has been observed that although the literacy rate of Arunachal Pradesh, Meghalaya, Mizoram and Tripura have increased from 2001-2011 a decreasing trend in female work participation rate have noticed in these north-Eastern states. Work participation rate of Manipur almost remains the same. All the north –eastern states have about 48-49 percent of female population which is similar to all India average. Among the north-eastern states Arunachal Pradesh has experienced the lowest literacy rate and Mizoram has experienced the highest literacy rate with 89.4 percent. Nagaland is ranked one in FWPR but ranked third in female literacy rate. On the contrary, Mizoram is ranked one in Female literacy rate but ranked fourth in FWPR. Table 4 depicts that all the NER (except Arunachal Pradesh) have experienced a higher female literacy rate as compared to the all India average. Gender gap in literacy rates between men and women is also low in North-eastern states as compared to India where it is 16.7 percent. Figure 2 depicts the relationship between female literacy rate and female workforce participation rate. The table evident that higher level of literacy rate do not necessarily lead to higher female workforce.

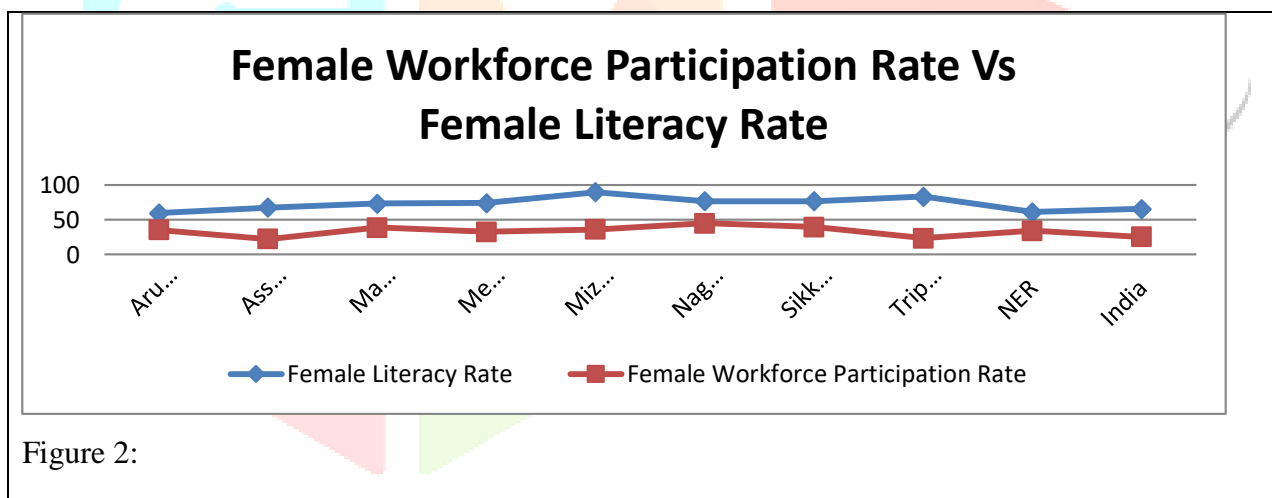


Figure 2:

Table 3:

Comparison of Female Workforce Participation Rate and Female Literacy Rate of North-Eastern States in 2011

States	Total Female Population	Female Population in percentage	Female Workforce Participation Rate	Female Literacy Rate	Gender gap in Literacy	Gender Gap In Work Participation	Sex Ratio
Arunachal Pradesh	669815	48.41	35.44	59.6	14.1	13.62	893
Assam	15266133	48.92	22.46	67.3	11.5	31.13	935
Manipur	1417208	49.63	38.56	73.2	13.3	13.02	978
Meghalaya	1475057	49.72	32.67	73.8	3.4	14.05	972
Mizoram	541867	49.39	36.16	89.4	4.3	16.19	935
Nagaland	953853	48.21	44.74	76.7	6.6	8.68	900
Sikkim	287507	47.09	39.57	76.4	10.9	20.59	875
Tripura	1799541	48.98	23.57	83.15	9.05	32.2	948
India	587584719	48.53	25.51	65.46	16.7	26.75	933

Source: Census of India 2011



Table 3 shows that the gender gap between the workforce participation according to the census of 2011. It reveals that, gender gap for work participation rate is less in all the north eastern states (except Assam and Tripura) as compared to the national average. Various studies evident that the low level of female workforce participation have attributed to educational attainment and various socio-economic factors like child care, marital status and economic status of family career and searching for better job opportunities etc.

### **(b) Composition of Rural-Urban Female Workforce Participation :**

Female Workforce Participation Rate of the North-Eastern States by residence is presented by in Table 4. In terms of residence, in rural areas Nagaland has highest female workforce rate with 52.3 percent and Assam has lowest female participation rate with 23.7 percent according to the census report of 2011. In Urban areas, Mizoram has highest female workers with 31.1 percent and Assam has lowest rate with 14.9 percent of female workers. The data reveal that women of Assam have experienced lowest participation as compared among north-eastern states and India in both rural and urban sector. All the north-eastern states (except Assam) have experienced higher female work participation in urban areas as compared to national average. The table 5 depicts that rural sector has a better female workforce participation rate of 30.02% compared with 53.03% for males whereas for urban sector there are 53.26 percent of male as against only 15.44 percent of female workers in India. There is a huge gap in rural and urban female's workforce participation in North-Eastern states and all India average. In all the states female workforce participation rate always remains much below compared to the MWPR in both urban and rural areas. Women in India are generally working in certain sectors, for example agriculture, manufacturing, textiles and other services. These sectors have not contributed to employment growth and this can be one of the reasons of the decline in FLEP (ILO, 2013). It has been seen that there is a huge gap in rural –urban participation of female workers. The gap is higher in Nagaland, Arunachal Pradesh and Sikkim as compared to the national average. This happens due to the fact that most of the women in north-east mostly dependent on agricultural and allied activities. Overall it has been seen that in all the north-eastern states and even in India FWPR is less than that of rural areas.

Table 4:

**Female Workforce Participation Rate in Rural and Urban Areas of North-Eastern States according to Census of 2011 ( in Percentage)**

States	Combined	Rural	Urban	Gap
Arunachal Pradesh	35.4	39.5	21.3	18.2
Assam	22.5	23.7	14.9	8.8
Manipur	39.9	41.2	33.2	8.0
Meghalaya	32.7	35	23.6	11.4
Mizoram	36.2	41.9	31.1	10.8
Nagaland	44.7	52.3	25.9	26.4
Sikkim	39.6	44.6	24.8	19.8
Tripura	23.6	26.3	16	10.3
India	25.51	30.0	15.4	14.6

Source: Census of India 2011

### c) Composition of female main and marginal workers of the North –Eastern States:

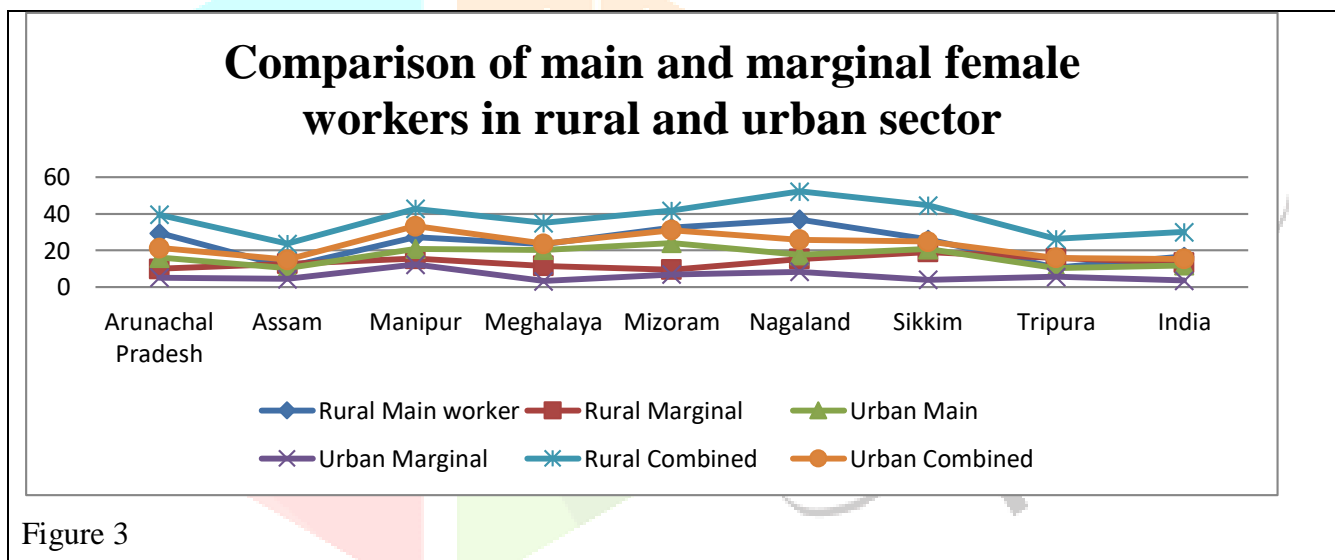


Figure 3

Figure 3 depicts the participation of female workers in main and marginal works in rural and urban sector. Census of India classifies workers into two categories i.e. main and marginal workers. The main workers are those who worked for more than six months in a year and the marginal workers are those who worked for less than six months. The analysis of Census data shows that during 1991-2011 the rate of growth in marginal workers is higher than that of main workers (Naik et al 2013). In India, the share of female marginal workers, accounting for about 40% of the total female workforce which is higher than their male counterpart. In case of main workers the rate of growth in female workforce has been higher than that of male during these two decades. In all the north-eastern states (except Assam and Tripura) most of the female workers are main workers. All the north-eastern states (except Tripura and Assam) have a higher rate of participation of main female workers as compared to India. Among all the north-eastern states Mizoram has the highest number of main workers in terms of both males and females. In Assam, participation of female in main work is 48.2 and in marginal work is 51.8 percent. It implies that

female workers in Assam largely engaged in marginal works mostly they are agricultural labourers, MGNREGA workers etc.

**Table 5: Percentage distribution of Main and Marginal worker**

States	Main			Marginal			Total workers (Main+Marginal)		
	Persons	Male	Female	Persons	Male	Female	Persons	Male	Female
Arunachal Pradesh	81.5	85.96	74.82	18.5	14.04	25.17	42.5	49.1	35.4
Assam	72.6	82.36	48.20	27.4	17.64	51.8	38.4	53.6	22.5
Manipur	73.8	83.33	60.9	26.2	16.67	39.1	45.1	51.6	38.6
Meghalaya	77.7	83.20	69.73	22.3	16.8	30.27	40	47.2	32.7
Mizoram	85	90.56	77.42	15	9.44	22.58	44.4	52.4	36.2
Nagaland	76.1	80.8	70.06	23.9	19.2	29.94	49.2	53.4	44.7
Sikkim	75	82.6	61.4	25	17.4	38.6	50.5	60.2	39.6
Tripura	73.3	84.94	44.6	26.7	15.06	55.4	40	55.8	23.6
India	75.2	82.3	59.6	24.8	17.7	40.4	39.8	53.26	25.5

Source: Census of India 2011

In case of North East it is observed that the WPR of female marginal workers had increased between 1991 and 2001, and thereafter it has shown a marginal decline in 2011. The work participation of Female is determined by various factors like structural factors as well as socio-cultural, i.e. family, caste, region, environment etc and socio-cultural factors like attitudes, customs, family ideology, division labour etc.(Pegu 2015)

### Results of Regression Analysis:

In order to examine the above analysis of table of Census 2011 data here we choose some factors to observe their effects on Female Work Participation Rate (FWPR) on north-eastern states. Tests have been done by using multivariate regression model. It gives us an overview of the effect of variables like female literacy rate (FLR), sex ratio, household size, rural and urban female work participation rate etc.

**Table 6 : Results of Multivariate Regression model**

Variables	Co-efficient	Standard Error	t-ratio	P-value
FLR	-0.3568	0.04568	-0.78	0.517
Sex Ratio	-0.0112	0.01697	-0.67	0.574
Household size	1.4871	1.5031	0.99	0.427
Rural FWPR	0.7193	0.0823	8.74	0.013**
Urban FWPR	0.1227	0.1105	1.12	0.381
Constant	9.865	14.06	0.70	0.556

Note: \*\*\* Signifies at 1% level of significance, \*\* signifies at 5% level of significance and \* signifies at 10% level of significance.

From the results, it has been found that the relationship between female literacy rate and female workforce participation rate is not significant. There is a negative relationship between literacy rate and work participation. It indicates that higher level of female literacy rate do not necessarily lead to higher work participation of female. With better educational attainment women are refusing to do casual wage jobs and more preferred to do salary paid jobs. The effects of sex ratio and household size on FWPR are also found insignificant. However, the study finds there is a significant relationship between rural female workforce participation rate and the female workforce participation rate as the co-efficient is statistically significant at 5% level of significance. It indicates that rural female workforce plays an important role in growth of total women's participation in labour market in the North-Eastern states. The urban female workforce also effects on female work participation rate positively.

### **Conclusion:**

The paper analyzed the trend of female workforce participation rate and female literacy rate in the north-eastern states on the basis of census report. The paper finds that inter-state variations have been observed in the states of NER in respect of female literacy rate and female workforce participation rate. From that it has been found that literacy is not only the factor that influence work participation but there are some other socio-economic factors such as place of residence and household income and job opportunities that may control the number of work participation. It has been found that rural female work participation rate influences the work participation of women. Large number of female workers participated in rural agricultural sector. But at the recent past, mechanization of agriculture and automation removed women from workforce as women are less preferred to do mechanical jobs. Therefore, gender based discrimination should be removed as it discourages women to take part in workforce. More women will have to be encouraged to join in economic activities to enhance their earnings and to raise their standard of living. Women empowerment has been effective through various government initiatives. Now it is the necessity to create a risk-free positive environment for women in both the organized or unorganized sectors for the states like Assam and Tripura as the performance of these two states are even worse than other states of the North-Eastern region. Policy makers should focus on various skill development programmes as it helps the educated young women to participate in formal jobs in urban areas. Efforts should also be made on promoting entrepreneurship in micro and small businesses as it creates job opportunities and drive the economic growth of the country.

## References:

- Census of India (2011), 'Office of Registrar General and Census Commissioner India
- Luis A, Dugupta A.B, Joseph G, Abraham V and Correia M, (April 2017) , 'Precarious Drop Reassessing Patterns of Female Labor Force Participation in India' Policy Research Working Paper 8024 ,South Asia Region Social Development Unit .
- Sanghi S, Srija A, and Vijay S.S (2015), 'Decline in Rural Female Labour Force Participation in India: A Relook into the Causes' The Journal for Decision Makers 40(3) 255–268 © Indian Institute of Management, Ahmedabad SAGE Publications
- Malakar K, (2017) 'Women in labour force in North Eastern states' International Journal of Applied Research; 3(4): 35-38
- Mehrotra S and Sinha S, (January 2019) 'CSE Working Paper 2019-02 T Towards higher female work participation in India: what can be done?' , Centre for Sustainable Employment cse.azimpremjiuniversity.edu.in
- Kaur P, (September 2016) 'Factors Affecting Female Labor Force Participation in North East India' International Journal of Humanities & Social Science Studies (IJHSSS) ISSN: 2349-6711 (Print) Volume-III, Issue-II, , Page No. 159-166 Published by Scholar Publications, Karimganj, Assam, India, Dr. Pardeep Kaur
- Desai S and Joshi O,(2019) 'The Indian Journal of Labour Economics 62:55–71 'The Paradox of Declining Female Work Participation in an Era of Economic Growth' Published online: 5 June 2019
- Sundar P, (May 9, 1981), 'Characteristics of Female Employment: Implications of Research and Policy' Economic and Political Weekly, Vol. 16, No. 19 pp. 863-871
- Pegu A, (January 2015), 'Female Workforce Participation in North-Eastern Region: An Overview' International Journal of Humanities & Social Science Studies ISSN: 2349-6959 (Online), ISSN: 2349-6711 (Print) Volume-I, Issue-IV, Page No. 154-160
- Das, Ira (January 2013), 'Status of Women: North Eastern Region of India versus India' International Journal of Scientific and Research Publications, Volume 3, Issue 1, 1 ISSN 2250-3153
- Mekhlieng D R and Algur K, (December 2021) 'Workforce Participation in North-East India' IASSIST quarterly / International Association for Social Science Information Service and Technology
- Ratho A, (March 2020) 'Promoting Female Participation in Urban India's Labour Force' ORF Issue Brief ISSUE NO. 348 , Observer Research Foundation.
- Abraham M, Bahr S and Trappmann M, (January - June 2019), 'Gender Differences In Willingness To Move For Interregional Job Offers' Demographic Research, Vol. 40 pp. 1537-1602



- Kaur S and Jaze J,(Autumn 2018-2019) ‘Female Labour Force Participation In India Analysing The U-Shaped Curve Of FLFP In India From 1990 To 2017’ Year:
- Arora R U, (Spring2012), ‘Gender Inequality, Economic Development, And Globalization: A State Level Analysis Of India’ The Journal of Developing Areas, Vol. 46, No. 1 pp. 147-164 Published by: College of Business, Tennessee State University
- Singh R D, (Oct., 1996), ‘Female Agricultural Workers' Wages, Male-Female Wage Differentials, and Agricultural Growth in a Developing Country, India’ Economic Development and Cultural Change, Vol. 45, No. 1 pp. 89-123 Published by: The University of Chicago Press,
- Srivastava N. and Srivastava R. (2009)’ Women, Work and Employment Outcomes in Rural India’ Discussion draft presented at FAO-IFAD Workshop on Gaps, trends and Current Dimensions in Agricultural and Rural Employment
- Chaudhary R and Verick S, (October 2014) ‘Female Labour Force Participation In India And Beyond’ ILO Asia- Pacific Working Paper Series,
- Rangarajan C, Kaur P.I and Seema, (September 2011) ‘Where is the Missing Labour Force?’ Economic and Political Weekly, Vol 46, Issue No.39, 24
- Kamtam M, (April 2018) ‘Female Labour Force Participation and Literacy Rate in India’,
- Verick S, (2014) ‘Female Labour Force Participation in Deveolping Countries –IZA world of Labour, International Labour Organization.
- Kapsos S, Bourmpoula E and Silberman A, (2014) ‘Why is Female Labour Force Participation Declining so Sharply in India’ ILO Working paper.

