

International Journal of Scientific Research and Reviews

A Spatial Analysis of Rural Female Work Participation Rate in Moradabad District of Uttar Pradesh, India

Naz Nazish

Department of Geography Aligarh Muslim University, Aligarh
Email: nazishnazdmp100@gmail.com

ABSTRACT

Work participation rate is a key factor determining the level of socio-economic development and growth of a nation. To empower the women, it is essential to develop them economically and their economic development can be achieved by increasing their participation in workforce. In other words the empowerment of women depends on their economic activities. However The participation of women in work has increased significantly in recent years yet there is considerable disparity not only in country but also among the states, districts, even small unit like tehsils and blocks. Therefore, considering all these into mind, the present paper has been carried out to understand the spatial pattern of female work participation rate and the variations in their work participation rate among the blocks of Moradabad district of Uttar Pradesh. The entire work is based on secondary sources of data collected from the Research Scholar, Department of Geography Aligarh Muslim University, Aligarh Primary Census Abstract, census of India, 2011. The boundary of block has been taken as the smallest unit of study. The major findings of the paper reveal that the regional distribution of female work participation varies considerably across the blocks of Moradabad district. It has been observed that majority of blocks come under the low category of rural female work participation rate.

KEY WORDS: Employment, Female work participation, Rural Female Workers, Occupational Category, Moradabad Districts.

***Corresponding author**

Nazish Naz

Research Scholar

Department of Geography,

Aligarh Muslim University,

Aligarh-202002, U.P. INDIA.

Email: nazishnazdmp100@gmail.com, Mob No – 8923071196

INTRODUCTION

Work participation plays an important role in determining the level of development and growth of a nation. The work participation rate shows the supply of labour in the economy and the composition of the human resources of the country. The analysis of the labour force participation is helpful in determining employment policy and policy formulation for human resource development. It is also very critical in poverty reduction and improving the women's status.

Women's empowerment, which has become a need of day and a concerned, depends to great extent on their participation in economic activities. Work participation of women is considered essential for women as it enhances their economic status which ultimately strengthens their role in decision making in their households. It has been also been a signal of declining discrimination against them. In other words, the status of women is intimately connected with their economic position which depends on opportunities for participation in economic ¹. Any women who in addition to her household work if engages herself in work for sale of wages or in domestic service against wage is treated as workers.

REVIEW OF LITERATURE:

A large number of studies focusing on the work participation rate of women, its role in their development and determinants of women work participation have been carried out by a number of scholars. **Moinuddin**¹ attempted to explore how the education influence the women's contribution in the working force of the country considering the fact that education is one of the strong agent of human development. Education and employment are two major factors which may contribute a lot in improving the women's status. It is generally assumed that women's education and work participation are positively correlated. In other words higher the education, higher the rate of employment. But, in India, the condition is reversed. In the country, the level of women's education has improved over recent years, but their participation in work is still low. In this context, **Nagaich and Sharma**² tried to develop a link between the educational condition of women and their work participation. In their study they have found that work participation of women is not increasing with the rise in status of education.

There are many other factors which have been observed influencing the level of work participation rate of women greater than the education. In fact women's employment status in our country is an outcome of the traditional attitude of society regarding the women's household duties including the childcare, religious restriction, social norms and taboos. Several studies have identified some of the possible determinants of female work participation in India^{3,4}. The major findings found through these studies disclose that level of education and number of young children affects adversely women's participation in labor force. **Singariya and Shekhawat**⁵ pointed out that literacy is one of

the important socio-cultural variables affecting the extent and nature of women's gainful employment. A high level of literacy is expected to have a negative impact on female employment as literacy raises the expectation of women about jobs.

Bardhan⁶ found that lower caste and tribal women participate more in labor force than higher caste women even in rural. Likewise, **Biswas**⁷ assessed that in rural areas, the socio-economic status, cultural practices, availability of suitable occupation determine the fraction of women in work participation. He further found that people of upper caste and upper social status, having better socio-economic condition have low work participation in work while the people belonging with lower caste and lower socio-economic status have higher women work participation.

The participation of rural women is higher than urban women. In rural areas, the agricultural sector requires a large number of agricultural laborers at a very cheap wages. The women, being illiterate and economically impoverished, happily agree to work at lower wages. Another reason responsible for the higher share of rural women in work is that they can perform their household duties along with their works. Moreover, agricultural and allied works do not require any special education and training as required for women works in urban areas. All of these factors contribute to raise the rural female work participation rate.

In Moradabad district, the work participation rate of rural women is about 10 percent while it is only 8 percent for urban women. Thus, the ratio of rural workers exceeds of urban women workers. But the majority of the rural women are engaged in cultivation and agricultural laborers where they are paid low wages as compared to urban areas. The urban female workers are lower than rural workers, but most of them are involved in household industry and other works where they find comparatively higher wages than rural female workers.

Census survey of India, 2011⁸ divides workers in two main groups i.e. main and marginal workers. Those workers who had worked for the major part of the one year reference period of census(i.e. 6 months or more) are termed as main workers, while those workers who had not worked for the major part of the reference period (i.e. work for less than 6 months) are termed as marginal worker. Both main and marginal workers consist of the four main categories of workers (i.e. cultivators¹, agricultural Labourers², household industry workers³, other workers⁴)

1. A person is classified as cultivator if he or she is engaged in cultivation of land owned or held from Government or held from private person on payment in money, kind or share. Cultivation includes effective supervision or direction in cultivation. Cultivation involves ploughing, sowing, harvesting and production of cereals and millet crops such as wheat, paddy, jowar, bajra, ragi, etc., and other crops such as sugarcane, tobacco, ground-nuts,

tapioca, etc., and pulses, raw jute and kindred fiber crop, cotton, cinchona and other medicinal plants, fruit growing, vegetable growing or keeping orchards or groves, etc. Cultivation does not include the following plantation crops - tea, coffee, rubber, coconut and betel-nuts (areca).

2. A person who works on another person's land for wages in money or kind or share is regarded as an agricultural labourer. She or he has no risk in the cultivation, but merely works on another person's land for wages.
3. Household Industry is defined as an industry conducted by one or more members of the household at home or within the village in rural areas and only within the precincts of the house where the household lives in urban areas.
4. All workers, i.e., those who have been engaged in some economic activity during the last one year, but are not cultivators or agricultural labourers or in Household Industry, are 'Other Workers (OW)'. The type of workers that come under this category of 'OW' include all government servants, municipal employees, teachers, factory workers, plantation workers, those engaged in trade, commerce, business, transport, banking, mining, construction, political or social work, priests, entertainment artists, etc. It has been attempted to show the variations among the all occupational categories of rural female workers along with their total work participation rate.

AIMS & OBJECTIVES:

1. To analyze the spatial pattern of rural female workers in Moradabad District.
2. To inspect the regional variations in rural female work participation rate across the Moradabad districts.

STUDY AREA:

Moradabad districts of Uttar Pradesh has been selected for the present study The geographical location of Moradabad district lies between the parallel of 28° 21' to 29° 16' north and longitudes of 78° 4' to 79° 0' east covering an area of 3817 square kilometers.

Total population as per census 2011 is 47, 72,006. The density of population is 1284 per square km. The sex ration of Moradabad district is 906 females per 1000 males while the literacy rate is 56.80%, out of which male and female literacy rate is 64.8% and 47.9% respectively. The total population of Moradabad district living in rural and urban areas is 3198383 and 15,73623 respectively.

Moradabad district has been divided into four tehsils namely Thakurdwara, Kanth, Moradabad, Bilari. These tehsils were further divided into eight development blocks viz; Thakurdwara, Chhjalet, Dilari, Dingarpur, Bilari, Bhagatur Tanda, Mundapandey, Moradabad. The total administrative blocks in Moradabad district as shown in primary abstract, 2011 are fourteen. But after the administrative division of Moradabad district, in 2013 now there are left only eleven blocks as mentioned above. Therefore, the data of rural female workers has been analyzed in eleven blocks.

Presently, it is an Administrative, Industrial and commercial city. After the establishment of Division Commissioner Office, its importance and status has further been elevated. This city lies on National Highway 24. From traffic and transport point of view here is main Railway station also Divisional Headquarters of Northern Railway. It is very well connected with main cities like Delhi, Lucknow, Bareilly, and Patna, Haridwar etc. by both Rail and Road transport. Moradabad district is situated at a distance of 167km (104 miles) from the National capital, New Delhi.

The total workers, in Moradabad district, as per the census of 2011 were 1417811. In which the ratio of male and female workers were 1193439 and 224372 respectively. The share of total rural workers was 950,534 in which the male and female constitute 786,552 and 163982 respectively. The corresponding figures for urban workers were 406,887 and 60,390. Out of total workers 45676 were main workers and 1567 marginal workers. The work participation of male main workers to total workers was 988949 percent whereas the work participation of female main workers was recorded only 116,019 percent as a whole in district. The corresponding figures for the male and female marginal workers were 204,490 and 108,353. However, the number of rural workers is higher than urban female workers, but most rural female workers are engaged in primary activities like cultivation and agricultural laborers.

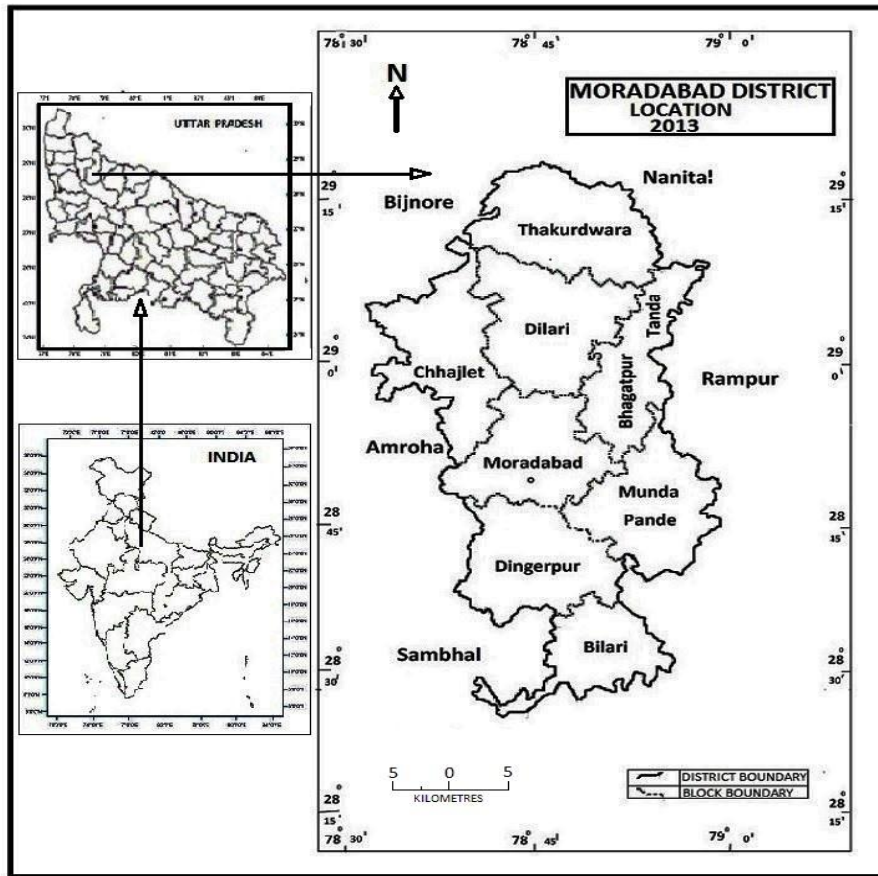


Figure 1: Location Map of Study Area

METHODOLOGY

The present work is entirely based on secondary sources of data that have been collected from Primary Census Abstract, Census of India, 2011. The block has been taken as the smallest unit of the study. The data has been shown in percentage. Work Participation Rates among various categories of workers have been calculated by using of the definitions and formula followed by the Census of India, 2011. The percentage of female main and female marginal workers has been calculated to the total rural female. In table-2, for a comparative analysis between rural male and female workers, the percentage of rural female main and marginal workers has been calculated to total rural workers. The percentage of all four categories of main workers such as cultivators, agricultural laborers, household industrial workers other worker were calculated to the total female main workers. The same method has been followed for marginal workers. In table-5, the percentage share of main and marginal rural female workers has been calculated to total rural female worker, whereas the total rural female work participation rate was calculated by applying the following formula-

Rural Female Work Participation Rate=

$$\frac{\text{RURAL FEMALE MAIN WORKERS} + \text{RURAL FEMALE MARGINAL WORKERS}}{\text{RURAL FEMALE WORKERS}}$$

TOTAL RURAL FEMALE POPULATION

The regional variation among various categories of female workers has been presented through cartographic maps which have been prepared by using the advanced statistical techniques GIS Arc View. The location of Moradabad district has been shown with the help of technique QGIS.

RESULT & DISCUSSION

General Distribution of Workers in District:

Table 1: Block-wise General Distribution of Employment Rate in Moradabad District by the Occupational Category

BLOCKS	Cultivators	Agricultural Labourers	Household Industrial	Other workers	Total Main workers	Total Marginal workers	Total workers
Thakurdwara	36.85	28.45	10.71	23.80	77.60	22.40	29.33
Dilari	41.10	30.46	8.76	19.67	77.90	22.10	27.51
Chhajlet	34.92	26.58	7.44	31.04	75.19	24.81	31.61
Bhagatpur Tanda	28.62	31.65	9.90	29.80	72.97	26.13	28.11
Moradabad	18.94	21.37	5.42	54.24	75.08	24.91	28.37
Mundapandey	36.96	29.99	4.82	28.21	72.24	27.76	27.58
Dingarpur	32.17	30.80	4.41	32.61	74.46	25.54	27.74
Bilari	41.26	30.77	6.21	21.74	74.49	25.51	31.14
Total Rural	37.10	31.90	5.50	25.40	75.30	24.70	29.70
Total Urban	3.40	7.50	7.70	81.40	83.20	16.80	29.70
Total District	26.00	23.90	6.30	43.90	77.90	22.10	29.70

Sources: Census of India, 2011, District Census Handbook, Moradabad, Primary Census Abstract

The spatial distribution of general work participation rate of Moradabad district has been given in table-1. The table contains the data about the total workers, total main workers and the total marginal workers in Moradabad district. The distribution of occupational categories has also been given in the same table. The table depicts that Moradabad district has the similar distribution of total workers in rural and urban areas which is 29.70 percent but there are variation in main and marginal workers between the rural and urban areas. The ratio of main workers in rural areas is 75.30 percent where it is 83.20 percent in urban areas but the condition gets reverse in marginal workers where the proportion of marginal workers in rural areas (24.70 percent) is higher than urban areas (16.80 percent). The distribution of occupational categories is also quite different. The share of cultivators and agricultural labourers in rural areas which is 37.10 and 31.90 percent respectively is higher than the urban cultivators (3.40%) and agricultural labourers (7.50%) but the trend gets opposite about the household industrial workers and other workers. The ratio of household industrial workers and other

workers in rural areas are 5.50 and 25.40 percent respectively while among the urban workers the corresponding figures is 7.70 percent and 80.41 percent.

Total Workers to Population:

A regional analysis of the data given in the table on the total work participation rate shows that the Moradabad district has the notable spatial variations among the blocks which run from 27.51 percent to 31.61 percent. These ranges of variations may be categorized into three grades below 28.87 percent (low), 28.87 to 30.23 percent (medium) and above 30.23 percent (High). It would be seen from the table that the high percentage of total workers is found only in two blocks namely Chhajlet (31.61 per cent) and Bilari (31.14 per cent) while the medium category i.e. 28.87 to 30.23 percent covers only one block namely Thakurdwara (29.33 percent). The blocks having the percent of total workers below 28.87 percent includes Dilari (27.51), Bhagatpur Tanda (28.11 percent), Moradabad (28.37 percent), Mundapandey (27.58 percent), and Dingarpur (27.74 percent).

Main Workers to total workers:

As per census of 2011 there are 35456 total workers in district from which 77.90 percent main workers and 22.10 percent marginal workers but the distribution of main workers is not uniform in district. It can be observed that main work participation rate varies from 72.24 percent in Mundapandey to 77.90 percent in Dilari. The range may be arranged into three category such as high (above 76.00 percent), medium (74.12-76.00 percent), and low (below 74.12 percent). Table-1 reveals that the two blocks of Moradabad have the high category of main workers. These blocks are Dilari (77.90 percent) and Thakurdwara (77.60 percent). The blocks of medium level of main workers constitute four blocks namely Chhajlet(75.19 percent), Moradabad (75.08 percent), Dingarpur (74.16 percent) and Bilari (74.49 percent) while the rest two blocks; Mundapandey (72.24 percent), Bhagatpur Tanda (72.97 percent) lie in the low category.

Marginal Workers to Total Workers:

The marginal work participation rate in Moradabad district as per the census of 2011 was 22.10 percent. However there are notable spatial variations of marginal workers among the blocks which range from 22.10 percent in Dilari to 27.76 percent in Mundapandey. These variations may be statistically grouped into three grades i.e. High (above 25.86 percent), Medium (23.98-25.86 percent) and Low (below 23.98 percent). It can be seen from the table-1 that the high grade of marginal work participation rate is found in two blocks of district namely Mundapandey (27.76 percent) and Bhagatpur Tanda (26.13 percent). The blocks having the medium marginal work participation rate are Dingarpur (25.54 per cent), Bilari (25.51 per cent), Moradabad (24.91 per cent), and Chhajlet

(24.81 percent). The low marginal work participation rate comprises only two district which are Thakurdwara (22.40 per cent) and Dilari (22.10 per cent).

Total Cultivators to total Workers:

Division of work force or economically active population into various occupational compositions is a primary aspect of economic development. In Moradabad district, 26 percent of total workers were engaged in cultivation as per the census of 2011 as a whole. However among the blocks of district, the percentage of cultivators varies from 41.21 percent in Bilari to 18.94 percent in Moradabad. The range of variations may be grouped into three grades; High (above 33.82 percent), medium (26.38 to 33.82 percent) and Low (below 26.38 percent). The regional pattern of cultivators shows that five blocks of Moradabad district namely; Bilari, Mundapandey, Thakurdwara, Dilari and Chhajlet come under the high category of cultivators. The medium category of cultivators is found in two blocks i.e. Dingarpur and Bhagatpur Tanda. The low category covers only one block which is Moradabad.

Agricultural laborers:

In 2011, 23.90 percent out of total workers were agricultural laborers in Moradabad as an average. However this percentage varies from 21.37 percent in Moradabad to 31.65 percent in Bhagatpur Tanda. The regional distribution of agricultural laborers may be categorized into three grades such as above 28.21 percent (High), 24.79-28.21 percent (Medium) and below 24.79 per cent (low). The table-1 depicts those six blocks namely Dingarpur, Bilari, Mundapandey, Bhagatpur Tanda, Dilari, Thakurdwara lie under the high category. The medium category is found only in one district which is Chhajlet (26.58) while rest block namely Moradabad come the under the low category.

Household Industrial Workers:

Among the blocks of Moradabad district the percentage of total workers engaged in household industry occupation varies from 4.41 percent in Dingarpur to 10.71 percent in Thakurdwara. These ranges of variations may be arranged into categories High (above 8.61 percent), Medium (6.51-8.61 percent) and Low (below 6.51 percent). The table discloses that the category of household industrial workers includes three blocks Vis; Thakurdwara, Bhagatpur Tanda, Dilari. The medium percentage constitutes only the block Chhajlet while the majority of blocks come under the low category.

Other Workers:

The total other workers out of total workers in Moradabad district were 43.90 percent as per census of 2011 but this ranges from 19.67 percent in Dilari to 54.24 percent in Moradabad. These ranges may be grouped into three categories such as High (above 42.7 percent), Medium (31.19-42.7 percent) and low (below 31.19 percent). The regional distribution of other workers given in table-1 reveals that the high level of other workers includes one block; Moradabad (54.24 percent) while the Dingarpur (32.61 percent) dominates in medium category. The rest six blocks in descending order namely; Chhajlet, Bhagatpur Tanda, Thakurdwara, Mundapandey, and Dilari come under the low category of other workers.

Table 2: Sex-wise Percent Distribution of Rural Main, Marginal and Total Workers in Moradabad District

BLOCKS	Main Workers			Marginal Workers			Total Workers
	Male	Female	Total	Male	Female	Total	
Thakurdwara	89.39	10.6	77.6	60.69	39.3	22.39	29.33
Dilari	90.97	9.02	77.9	67.09	32.9	22.10	27.51
Chhajlet	86.52	13.47	75.13	59.34	40.65	24.86	31.68
Bhagatpur Tanda	88.99	11.06	72.97	70.58	29.41	27.02	28.11
Moradabad	90.16	9.83	73.76	65.17	34.82	26.32	28.53
Mundapandey	91.47	8.52	72.24	72.99	27.00	27.75	27.58
Dingarpur	91.07	8.93	74.46	67.06	32.95	25.53	27.74
Bilari	87.43	11.34	74.25	62.64	37.35	25.74	31.26
Total Rural	89.70	10.29	74.8	65.96	34.03	25.19	28.84

Sources: Census of India, 2011, District Census Handbook, Moradabad, Primary Census Abstract

Sex-wise percent distribution of main, marginal and total workers of rural Moradabad has been given in table-2. A gender analysis of main workers clearly shows that the rural areas are facing the wide gender disparity as a whole in district and among the blocks of the district. According to census of 2011, the average rural work participation of male workers in Moradabad district was 89.70 percent. It was 10.29 percent for rural female main workers. The same trend has been observed in marginal workers where the male dominates the female. The ratio of male and female rural marginal workers was 65.96 and 34.03 percent respectively.

The table-2 discloses the fact that there is wide difference between male main workers and female main workers. The share of female main workers to their total workers is lesser than that of the male main workers to their total workers. There is a notable spatial disparity in the districts among the male main work participation and female work participation rate. The highest male main work participation is 91.47 percent in Mundapandey and lowest is 86.52 percent in Chhajlet. The condition is quietly different in female main work participation where the highest female work participation is found in 13.47 percent in Chhajlet while the lowest (8.52 percent) in Mundapandey.

However, there is lesser difference male and female rural marginal workers as compared to main male and female workers, yet the rural areas of Moradabad district are remarked with the notable difference between male marginal and female marginal workers. The male marginal work participation runs from the highest (72.99 percent) in Mundapandey to the lowest (59.34 percent) in Chhajlet. The position is quietly opposite in female work participation. The highest female marginal work participation is observed in Chhajlet which is 40.65 percent whereas the lowest female marginal work participation is found in Mundapandey that is 27.00 percent.

Table 3: Spatial Distribution of Rural Female Main Workers on the basis of Occupational Categories in Moradabad District

BLOCKS	Cultivators	Agricultural Labourors	Household Industrial	Other Workers	Total
Thakurdwara	21.96	13.27	31.26	33.04	10.60
Dilari	30.42	13.28	25.42	30.86	9.02
Chhajlet	27.92	13.13	19.55	s39.38	13.47
Bhagatpur Tanda	22.85	17.06	27.76	32.32	11.06
Moradabad	23.87	17.86	7.57	50.68	9.83
Mundapandey	30.30	21.23	9.69	38.76	8.52
Dingarpur	27.22	23.68	13.60	35.42	8.93
Bilari	38.60	29.97	6.78	24.63	11.34
Total	28.13	18.74	17.97	35.16	10.29

Sources: Census of India, 2011, District Census Handbook, Moradabad, Primary Census Abstract

The table-3 presents the occupational categories of rural female workers to total female main workers in Moradabad district. It can be seen from the table that that the percentage distribution of occupational categories is not uniform. There is a remarkable spatial variation among these categories in Moradabad district as a whole. As per the census of 2011, 28.13 female main workers in rural areas were engaged in cultivation. 18.74 percent out of total main workers were agricultural labourers, 17.97 percent were working as household industrial workers. The share of rural female main workers, working as other workers was 35.16 percent.

The spatial distribution of female main cultivators ranges from 38.6 percent in Bilari to 21.96 percent in Thakurdwara. These may be grouped into grade such as High (above 33.10), medium (27.55-33.10), low (below 27.56). The table shows that the highest grade of female main cultivators covers only one block; Bilari while the blocks having the medium grade are Dilari, Chhajlet and Mundapandey. The lowest grade has been found in four blocks namely Thakurdwara, Bhagatpur Tanda, Moradabad and Dingarpur.

The regional distribution of female main agricultural laborers is uneven among the blocks of Moradabad district. It varies from 29.97 percent in Bilari and 13.13 percent in Chhajlet. These variations may be grouped into three categories High (above 24.35 percent), Medium (18.74-24.35 percent) and low (18.74 percent). It would be seen from the table-3 that the high percentage of female main agricultural laborers is found in Block Bilari. The medium category is observed in blocks Mundapandey, Dingarpur. The majority of the blocks lie in low category. These are Chhajlet, Thakurdwara, Dilari, and Bhagatpur Tanda.

The average work participation of rural female in household industries in district Moradabad is 17.97 percent but its distribution among the blocks of district is not uniform. It varies from 31.26 percent in Thakurdwara to 6.78 percent in Bilari. These ranges of variation may be divided into three categories namely High (above 23.10 percent), Medium (14.94-23.1 percent) and low (below 14.94 percent). The high level of rural female work participation in household industry covers the three blocks such as Thakurdwara, Bhagatpur Tanda, and Dilari. The block Chhajlet falls under the low category. The blocks viz; Bilari, Moradabad, Mundapandey and Dingarpur constitute the low category.

The Table reveals that the range of rural female main other workers running from 50.68 percent in Moradabad to 24.63 percent in Bilari is wider than household industrial workers. The block wise percentage of rural female main other workers may be conveniently grouped into three grades. The one block Moradabad come the high grade (above 41.99 percent). The four blocks namely Chhajlet, Mundapandey, Dingarpur, and Thakurdwara come under the medium grade (33.31-41.99 percent). The low grade (below 33.31 percent) of female other workers includes the blocks; Bilari, Dilari, Bhgatapur.

The female main work participation varies from 8.52 in Mundapandey to 13.47 percent in Chhajlet. These variations may be divided into three categories such as High (above of 11.82), Medium (10.17-11.82), Low (below 10.17). It may be observed from the table that only one block namely Chhajlet comes under the high grade of female main work participation. Two blocks of the district viz; Bhagatpur Tanda and Bilari have the medium grade. The low grade of female main work participation is found in five blocks such as Dingarpur, Mundapandey, Moradabad, and Dilari.

Tabel 4: Percent Distribution of Rural Female Marginal Workers based on Occupational Categories

BLOCKS	Cultivators	Agricultural Labourors	Household Industrial	Other workers	Total
Thakurdwara	25.53	28.83	25.55	20.08	39.30
Dilari	33.88	21.7	23.54	20.88	32.90

Chhajlet	23.34	21.55	16.47	38.62	40.65
Bhagatpur Tanda	19.84	30.73	19.55	29.86	29.41
Moradabad	13.61	35.69	11.92	38.72	34.82
Mundapandey	19.91	27.73	17.54	34.79	27.00
Dingarpur	17.84	42.65	11.2	28.29	32.95
Bilari	18.36	37.44	17.85	26.34	37.35
Total	21.42	31.18	17.58	29.8	34.03

Sources: Census of India, 2011, District Census Handbook, Moradabad, Primary Census Abstract

The spatial distribution of rural female marginal work participation rate is more or less similar to that of main female work participation rate in the district. The district average for the rural female marginal workers is 34.03 percent. The table shows the notable variations in female marginal workers among the blocks in the district which ranges from 40.65 percent in Chhajlet to 27.00 percent in Mundapandey. The entire range of variation may be arranged into three categories viz; High (above 36.10), Medium (31.55-36.10), and Low (below of 3.55). It can be analyzed from the table that three blocks of Moradabad district have the high level of rural female work participation rate. These blocks are Chhajlet, Thakurdwara, and Bilari, whereas, the blocks having the medium category of rural female marginal workers are Dilari, Moradabad, Dingarpur. The low grade of marginal work participation of rural female covers the two blocks namely; Mundapandey and Bhagatpur Tanda.

In 2011, 21.42 percent of rural female marginal workers were engaged in Cultivation, as a whole in Moradabad district. However, among the blocks of Moradabad district, the percentage of female work participation engaged in cultivation varies from 33.88 percent in Dilari to 13.61 percent in Moradabad. These variation may be categorized into three grade such as High (above 27.11), Medium (20.36-36.11) and Low (below 20.36). The presents that the high percentage of rural female marginal cultivators is found only in one block; Dilari, whereas the medium level covers two blocks namely Thakurdwara, Chhajlet. The low grade of rural female marginal workers engaged in cultivation covers the blocks Moradabad, Dingarpur, Bilari, Mundapandey, and Bhagatpur Tanda.

In Moradabad district, the share of rural female marginal agricultural laborers out of total rural female marginal workers is 31.18 percent as an average of District. However, this category of female marginal workers in rural areas does not form an equal distributional pattern among the blocks of Moradabad district. It varies from 42.65 percent in Dingarpur to 21.55 percent in Chhajlet. The spatial distribution of agricultural laborers may be arranged into three categories such as High (above of 35.61 percent), Medium (28.58-35.61 percent), Low (-28.58). An analysis of table-4 depicts that The blocks namely Dinagrpur, Bilari and Moradabad constitute the high grade of agricultural laborers while the blocks; Thakurdwara and Bhagatpur Tanda falls under the medium grade of

female marginal agricultural laborers. The low grade has been observed in blocks; Chhajlet, Dilari, Mundapandey.

The ratio of rural female marginal workers involved in household industries is 17.58 percent according to the census 2011 in Moradabad district. However the spatial distribution of the same category among the blocks of Moradabad is not uniform. It ranges from 25.55 percent in Thakurdwara to 11.2 percent in Dingarpur. These ranges of variations may be statistically arranged into three categories viz; High (above 20.76 percent), Medium (15.98-20.76 percent) and Low (below 15.98 percent). The table-4 discloses the fact that high category of female marginal workers engaged in household industry is concentrated in two blocks namely; Thakudwara, Dilari. The medium percentage comes under the four blocks viz; Chhajlet, Mundapaney, Bilari, Bhagatpur. The low level of rural female marginal household industrial workers is found in Dingarpur and Moradabad blocks.

The percentage of rural female marginal other workers out of total rural female marginal workers is 29.8 percent as a whole in Moradabad district as per the census of 2011. However, the block wise ratio of female marginal other workers in not equally distributed. The inter-blocks variations in the same occupational category range from 38.72 percent Moradabad to 20.08 percent in Thakurdwara. The entire range of variations may be broken into three categories viz; High (above 32.50), Medium (26.29-32.50 percent) and low (below 15.98 percent). An observation of table-4 reveals that three blocks of the district namely Moradabad, Chhajlet, and Mundapandey are identified in High grade of rural female marginal other workers, whereas the medium grade is found in blocks Bilari, Dingarpur, and Bhagatpur Tanda. The blocks having the low grade of other workers are Thakurdwara and Dilari.

Regional Analysis of Work Participation:

Table 5: The Percent Distribution of Rural Female Main, Marginal and Total Workers in Moradabad District

BLOCKS	Main Workers	Marginal Workers	Total
Thakurdwara	48.33	51.66	10.51
Dilari	49.15	50.84	8.25
Chhajlet	50.05	49.94	13.42
Bhagatpur Tanda	50.24	49.74	9.4

Moradabad	44.25	55.74	9.81
Mundapandey	45.11	54.88	7.49
Dingarpur	44.12	55.88	8.76
Bilari	46.69	53.31	11.97
Total	47.31	52.69	11.72

Sources: Census of India, 2011, District Census Handbook, Moradabad, Primary Census Abstract

Rural Female workers:

In 2011, the rural female employment rate was recorded 11.72 percent which was comparatively higher than urban female workers. The rural female work participation rate varies from the highest in 13.42 percent in Chhajlet to the lowest 7.49 percent in Mundapandey. The inter-block variations may be categorized into three categories such as High (above 11.43 percent), Medium (9.46-11.43 percent) and low (below -9.46percent). High grade (above 11.43 percent) of rural female work participation is observed in two blocks of the district namely; Chhajlet (13.42 percent) and Bilari (11.97 percent) but they failed to make any identifiable region in the district (Fig. 2). One block of the district namely Thakurdwara (10.51) having medium category (9.46-11.43 percent) of rural female work participation lies in the north of Moradabad whereas another block viz; Moradabad (9.81 percent) which comes under the medium category is located in the west of the district. Thus the both are unable to make a distinct region. The four blocks of the district fall under the low category (-9.46 percent) of rural female work participation namely; Dingarpur (8.76 percent), Bhagatpur Tanda (9.4 percent), Mundapandey (7.49 percent) and Dilari (8.25 percent) make a dominant region in the central part of Moradabad district. This region extends from Dilari blocks in the north to Dingarpur in the south.

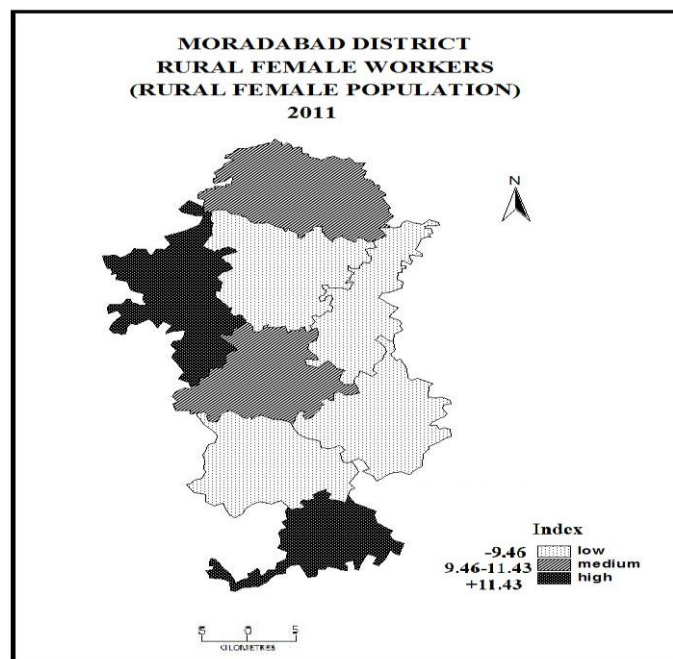


Figure 2: Regional Distribution of Rural Female Workers

Rural women main workers:

Moradabad district is marked with notable regional variations in the distribution of rural female main workers which runs from 50.24 percent in Bhagatpur Tanda to 44.12 percent in Dingarpur. This range of rural female main workers may be arranged into three grades such as High (above 48.2 percent), Medium (46.16 percent-48.2 percent) and low (below 46.16 percent). Fig. 3 displays that the four blocks of the district having the high category of rural female main work participation constitute a single dominant region in the North of the district. These blocks in descending order are Bhagatpur Tanda (50.2 percent), Chhajlet (50.05 percent), Dilari (49.15 percent) and Thakurdwara (48.33 percent). The medium category (46.16-48.2 percent) of rural female main workers is observed only in one block namely Bilari (46.69 percent) which makes a single distinct region in the south of the district. The blocks of low category (-46.16 percent) of rural female workers are mainly confined in the center part of the district and make a prominent region. These blocks are Mundapandey (45.11 percent), Moradabad (44.25 percent), Dingarpur (44.12 percent) and Mundapandey (45.11 percent).

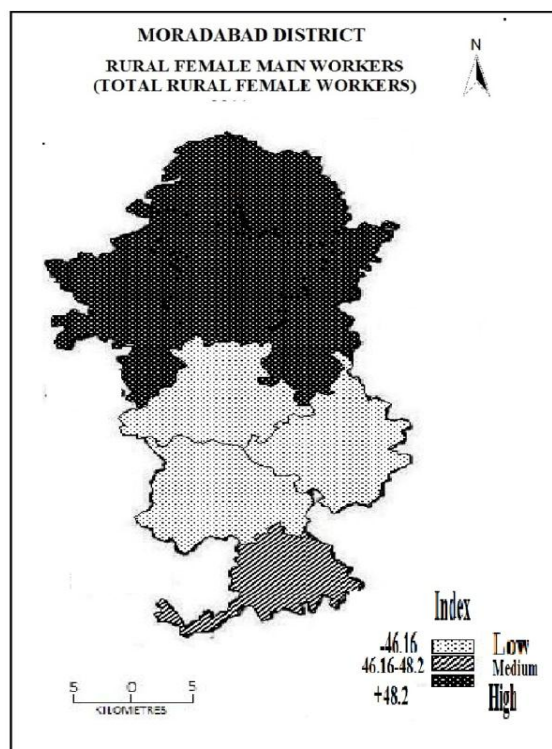


Figure 3: Regional Distribution of Female Main Workers

Rural female marginal workers:

The table-5 discloses the fact that the share of rural female marginal workers to their total workers is higher than rural female main workers to their total workers. The pattern of rural female marginal work participation is quietly different from that of rural female main work participation. In the district, the rural female marginal workers vary 55.88 percent in Dingarpur to 49.74 percent in Bhagatpur Tanda. These variations may be categorized into three grades like Low (51.76 percent), Medium (51.76-53.82 percent) and High (above 53.82 percent).

Fig.4 displays that the three blocks of the district with high grade (+53.82 percent) of rural female marginal workers constitute a single dominate region in the center-South part of the district, which composed of Dingarpur (55.88 percent), Moradabad (55.74 percent), and Mundapandey (54.88 percent). The medium grade (51.76-53.82 percent) of female marginal workers is found only in one block namely; Bilari (53.31 percent) which constitute a single region in the south of Moradabad district. The four blocks of the district having low grade (-51.78 percent) of female marginal workers make a distinct dominant region in the North of the district. These blocks in ascending order are; Thakurdwara (51.66 percent), Dilari (50.84 percent), Chhajlet (49.94 percent) and Bhagatpur Tanda (49.74 percent).

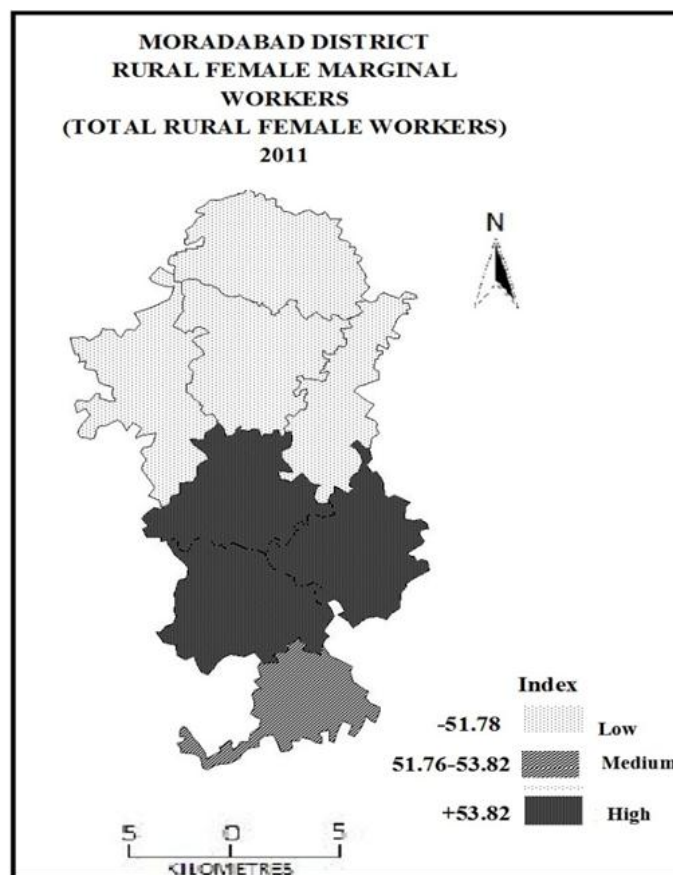


Figure 4: Regional Distribution of Female Marginal Workers

CONCLUSION:

The overall analysis of the spatial distribution of rural female work participation is very significant by showing the low share of female workers in total work force, very low female work participation as compared to men, majority of rural female workers involving in agricultural workers, etc. The major findings obtained through the discussion may be summarized as following:

- There is wide gender disparity between the rural male and female main workers in Moradabad district in which male main workers dominates the female. The same trend has been recorded in rural marginal work participation where the male marginal workers outnumber their counterpart female marginal workers.
- The findings reveal that the rural female employment rate considerably varies across the blocks in Moradabad district. The high category of rural female workers is observed in north-western and southern part of the district, on the other hand, the medium grade is observed in the north and central part of the district. The main causes responsible for disparity in rural female employment rate in study area may be rural population, ST and SC population, population density, cultivation, intensity of cropping, sex-ratio, female literacy, etc.

- The share of female marginal workers is greater than female main workers in rural areas of the study area excluding few blocks. The reason behind this difference may be that the rural women who are restricted to move out of their locality due to burden of household responsibilities and social norms get involved in agricultural work and allied activities which do not require any skill and training and this type of work may be carried by them along with their domestic work.
- The variations are also notable among the rural female main workers across the district which varies from the high grade in the northern region to the low in the center of the district. The pattern of areal distribution of rural female marginal work participation is different from that of main female workers in the district.
- The northern region of the district has the high category of female main workers, on the other it has low grade of rural female marginal workers. Likewise, the central part of the district having the low category of main workers has the high grade of rural female marginal workers. In this way the condition gets completely reversed. These variations may be due to level of education and of the women and their socio-economic status.
- The variations are remarkable in occupation categories of rural main female workers as a whole in the district and among the blocks of the district. The rural main female other workers have the highest share among the all categories of occupation in the district. The female workers involved in cultivation stand on second position whereas the third position is occupied by the agricultural laborers followed by household workers.
- The pattern of the percentage distribution of rural female marginal workers based on occupational categories is to some extent similar to that of rural female main workers. The difference lies only in categories of agriculture laborers and other workers in which the rural female marginal agricultural laborers outnumber the rural female marginal other workers.

REFERENCES

1. Moinuddin, M. Journal of Geography and Regional Planning, 2012; 5(2): 36-50, 18 January, 2012 Available online at <http://www.academicjournals>
2. Nagaich, S. and Sharma, P. “ Is Literacy a cause a of increasing in Work Participation in Punjab (India): A Regional Analysis” International Journal of Research in Applied, Natural and Social Sciences, 2014; 2(2): 49-56.
3. Gulati,& Leela, “Female Work Participation- A Study of Inter State Differences” Economic Review, 1975; 69(1): 73-83.

4. Dasgupta, P: “Female Labour Supply in Rural India – An Econometric Analysis”, Working Paper Series, No. E / 265 / 2005, Institute of Economic Growth, New Delhi.
 5. Singariya, M.R. and Shekhawat, H. “Determinants of Female Work Participation in Rajasthan: A District Level Analysis” published in proceeding of 35th REA and CURAS, 2015; 75-82. Flying Pen Publication, Jaipur, available online at: <https://www.researchgate.net>
 6. Bardhan, P.K. “Labour Supply Functions in Poor Agrarian Economy” American Economic Review, 1979; 69 (1): 73-83
 7. Biswas, K. “Female Work Participation Rate in Different Segment of the Society: Case Studies of Ausgram Block II and in Bardhman District and Gosbha Block of 24 Parganas (South) in West Bangal” Geographical Review of India, 2012; 74(4), December-2012; 383-393.
 8. Census of India 2011, District Census Handbook, Moradabad, Part XII-B, Series 10, Village and Town wise Primary Census Abstract, Directorate of Census Operations, Uttar Pradesh.
-