

Level and Structure of Workers in Malda District

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ABSTRACT

Malda is one of the major districts in West Bengal as well as India. Total connection between North Bengal and South Bengal is conducted through this District. Therefore many service sectors like communication, trade, transport, resort etc. are played to form new employment of works. The district is mainly based on agriculture. Although many factories, business sectors etc are developed in urban area, but high population growth makes the disparity in work participation rate. A study of the level and structure of workers, which shows the work participation rates, changes in workforce of agriculture and non-agriculture sector and growth and changes in workforce by different industrial categories, of any economically significant in several ways. The present study is an attempt to study the level and structure of workers in Malda district of West Bengal using census data for the period 2001-2011 which will provide an understanding of the structural changes taking place in the economy of the district in the post reforms era.

1. Introduction

The workers of any country may be defined as the no of people engaged in or available for work, and conceptually includes all those who contribute to the Gross Domestic Product (GDP) of the economy. The study of workers of an economy is significant as it provides information regarding the productive capacity of the economy. Work is taken as basis to identify workers. In recent census, work is defined as participation in any economically productive activity with or without compensation, wages or profit. Such participation may be physical or mental in nature. Work involves not only the physical work but also includes supervision and direction given to other workers. In the present study an attempt has been made to examine the changes in the level and structure of total workers in the Malda district of West Bengal using census data. The time period chosen for the study is 2001-2011 to understand the effects of the new economic policy on the work participations rates of workers in the district.

2. Review of related literature

I. Mukhopadhyay's (2005) study of women workers in West Bengal for the periods 1981-2001 using census and NSS data reveals that there has been marginalization of labour force throughout 1981-2001, but the degree of marginalization between 1991 and 2001 has been faster than between 1981 and 1991. The study also observes that among 15 major states in the country West Bengal was ranked the lowest in 2001 at 18.08 percent interns of female work participation rate.

II. Rai Srijana (April 2015) study of structure and growth of workforce in Darjeeling district of West Bengal for the periods 1991-2011 using census data reveals that for Darjeeling district as in the rest of India the process of marginalization of the workforce started during nineties and is continuing It is also reveals that WPRs for women are lower compared to that of men which indicates under estimation of women's economic contribution.

III. Bhagat R.B & Das K.C (2008), analysis of work participations rates in India for the period 1981-2001 using census and NSS data shows that male work participation rates (main & marginal) remained almost static from 1981-2001 whereas female work participation rates showed an increasing trend. This has been ascribed to increase in marginal workforce in rural and urban areas, and rise in main workforce in urban areas for females; and steep decline in main workforce both in main workforce in rural areas which compensated the spectacular increase in marginal workers both in rural and urban for males. The study also reveals that the work participation rates for female is lower than that of males in India and most of the states during 1981-2001 though the disparity has been decreasing. Even in West Bengal the work participation rate is quite low among the females.

IV. Bhalla and Kaur (2011) using NSS data for the past 25 years observe that female labour force participations rates, more accurately labour force participation rates for urban women are among the lowest in the world although poverty considerations lead to greater labour force participations rates for rural women.

3. Objective of the study

In the light of the review of related literature the study would like to accomplish the following objectives:

- I. To analyze the level and growth in the work participation rates for the Malda district by sex and place of residence.
- II. To study the changes in the workforce in non-agricultural sectors.
- III. To study the growth and changes in workforce by different industrial categories.
- IV. To show gender disparity of different blocks in Malda district.

4. Study Area

The study area Malda is situated between the latitude and longitude figures of 24°40'20"N to 25°32'08"N and 88°28'10"E

to 87°45'50"E respectively and surrounded by Bangladesh and South Dinajpur in the east, Santal Parganas of Jharkhand state in the west, Uttar Dinajpur in the north and Murshidabad in the South. The district covers an area of 3,733.66 square kilometres (1,441.6 sq mile). The study area consists of 11

police station, 15 development blocks, 2 municipalities, 146 gram panchayats and 3701 villages. The district consist with two subdivisions, that is Sadar and Chanchal, and English Bazar is the headquarters station of the district as well as the Sadar subdivision.

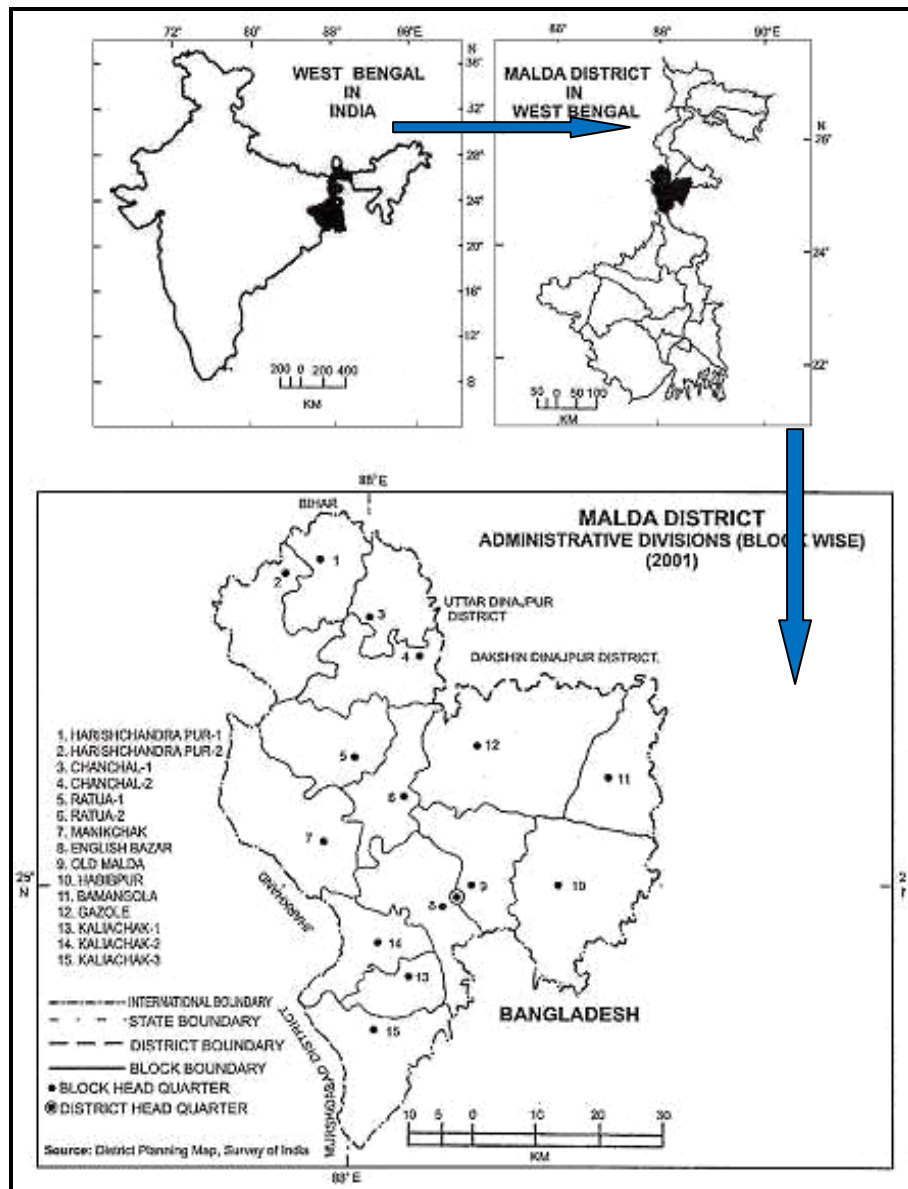


Figure 1. Location of the study area

5. Source of Data

The present study is based on secondary data which are collected from the district statistical handbook of the census year 2001 & 2011 in the census office of Malda town, the district of Malda provided by Bureau of Applied Economics and Statistics, government of West Bengal.

6. Methodology

To analyses the collected workers data at Malda district, following indicators are calculated:

I. Crude Work Participation Rates (CWPR)

Crude Work Participation Rate is defined as the ratio of total workers to total population multiplied by 100. The crude work participation rates were calculated for the total, main and

marginal workers by sex and rural and urban residence. CWPR expressed as percentages.

$$CWPR = \frac{TW}{TP} * 100$$

Where,

- CWPR – Crude Work Participation Rate
- TW – Total Workers
- TP – Total Population.

II. Percentage of Workers in Non-Agricultural Sector

Percentage of workers in non-agricultural sector is calculated as follows:

$$\text{Percentage of Workers in Non-Agricultural Sector} = \frac{\text{Totalnon-agriculturalWorkers}}{\text{Totalworkers}} * 100$$

III. Sopher's Index of Gender Disparity

To calculate the gender disparity of the block wise different workers in Malda district flowing formula are used:

$$\text{Sopher's Index of Gender Disparity} = \text{Log} \frac{X2}{X1} + \text{Log} \frac{100-X1}{100-X2}$$

Where,

- X2- Male Worker
- X1- Female worker

7. Result and Analysis

7.1. Pattern of Work Participations

In this Chapter I have analyzed the trend and patterns of work participation in Malda district during the periods of 2001 to 2011 based on crude work participation rate by sex and residence.

7.1.1 Work Participation Rate (Main+Marginal) by Sex

On the basis of participation rates in the last year workers are categorized into two types. These are-

I. Main Workers

All those workers who were engaged in an economically productive activity for 183 days (six months) and more during the last year are termed as Main Workers.

II. Marginal Workers

All those workers who had worked less than 183 days or less than six months were termed as Marginal Workers. Table.1. Work participation Rate (Main + Marginal), Malda, by Sex 2001-2011

Workers	2001	2011
Total Workers (%)	40.8	38.55
Male (%)	52.55	52.96
Female (%)	28.27	24.3

Source: Computed by me from Census of India, 2001 and 2011

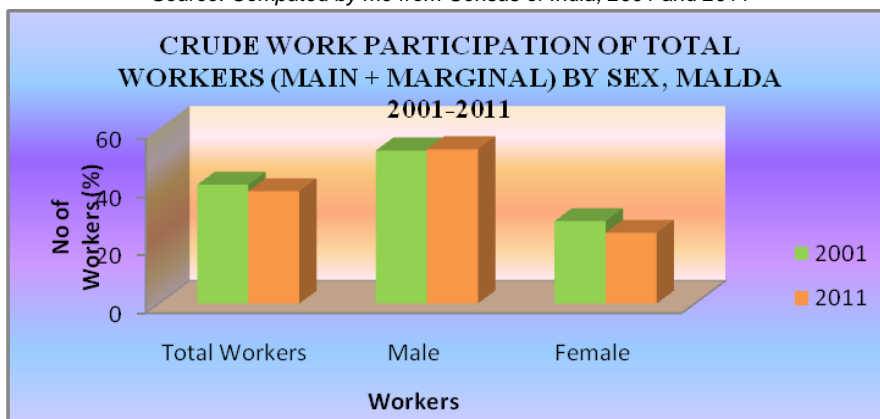


Figure.2. Crude Work Participation Rate (Main + Marginal) by Sex 2001-2011

Figure-2 shows the Crude Work Participation Rate (Main+Marginal) by sex in the Malda district during the study periods. It is observed from the table that male work participation rate has a little increased from the 2001 to 2011

but at the same time there is a few decline in the female work participation rate. Whereas total work participation rate has decline from 2001 to 2011. Which indicate that male's employment rate has increased.

7.1.2. Work Participation Rate (Main+Marginal) by Residence

Table.2. Work participation Rate (Main + Marginal), Malda by Residence, 2001-2011

Workers	2001	2011
Total Workers (%)	40.8	38.55
Rural Workers (%)	41.5	38.69
Urban Workers (%)	31.7	37.68

Source: computed by me from census of India, 2001 and 2011

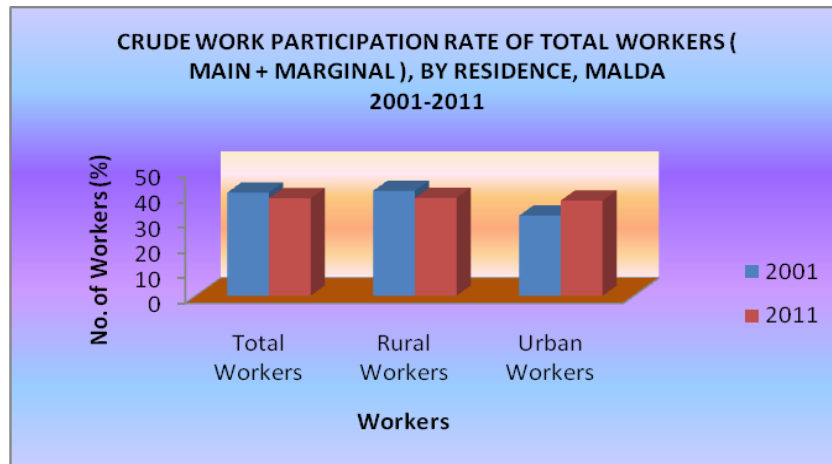


Figure.3. Crude Work Participation Rate(Main + Marginal) by Residence, Malda 2001-2011

Figure.3 shows the crude work participation rate (Main + Marginal) by residence in Malda district during 2001 to 2011. The table depicts that the total work participation rate (Rural and Urban) have been decline from 2001 to 2011. Where the rural work participation rate has been decline from 2001 to 2011, but at the same time urban work participation rate is a little increased. Which indicate that the employment rate of urban area has increased, because there are any factories, commerce business etc. in Malda district.

7.1.3. Work Participation Rates (Main Workers), 2001-2011 by Sex

It has been mentioned earlier that workers are two types based on the duration of work during the last year. As such, the main workers assume special importance as they are engaged in work during the major part of the year. Thus, the study of work participation rates based on main workers shows the extent of workforce fully employed.

Table.3. Work Participation Rates (Main Workers), Malda, by sex, 2001-2011

Workers	2001	2011
Total Workers (%)	29.4	25.71
Male (%)	44.67	41.53
Female (%)	13.26	11.28

Source: Computed by me from Census of India, 2001 and 2011

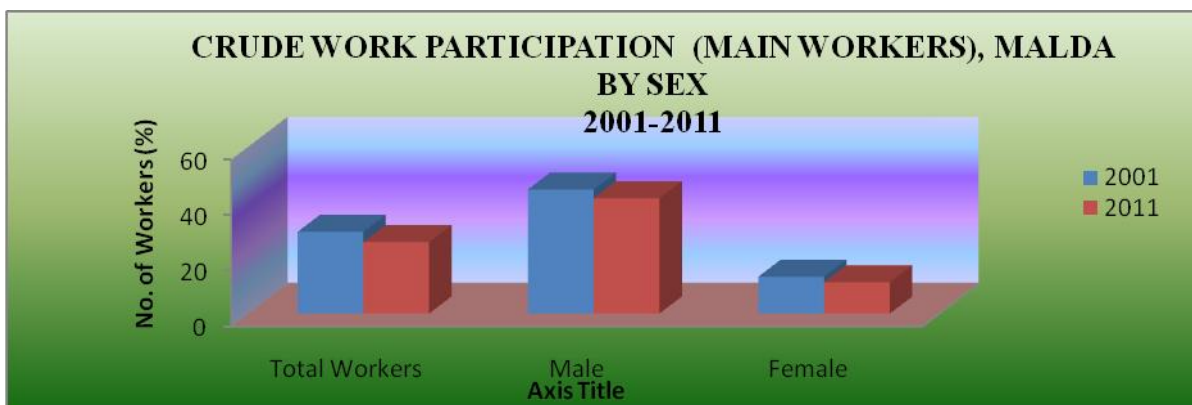


Figure.4. Crude Work Participation Rate (Main Workers) by sex, Malda 2011-2011

From the above Figure.4 it is found that the crude work participation rates of female main workers are always lower than their male counterparts during the study periods. From the

above table it also can be said that in the study area male and female both work participation rates have been decline from 2001 to 2011. It is indicates that incase of main worker the

employment rate has decline of the both of male and female. district not so well. So, it can be said that the level of work participation rate Malda

7.1.4. Work Participation Rates (Main Workers), 2001-2011 by Residence

Table.4. Work Participation Rate (Main), Malda, by Residence 2001-2011

Workers	2001	2011
Total Workers (%)	29.4	36.35
Rural Workers (%)	29.4	25.71
Urban workers (%)	29.4	30.38

Source: Computed by me from Census of India, 2001 and 2011

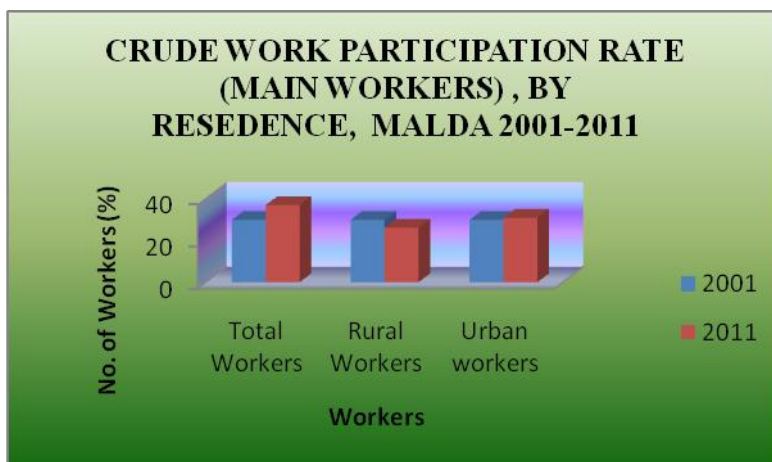


Figure.5. Crude Work Participation Rates (Main Workers), by Residence, Malda, 2001-2011

Figure.5 shows that the crude work participation rates (Main Workers) by residence during the study period. It is revealed from the table that work participation rates by residence has been increased from 2001 to 2011. Though rural work participation rate have been decline from 2001 to 2011, but urban work participation rate have been increased at the same time. It is indicates the workers of rural area migrate the urban area for the purpose of work in the Malda district.

It has been mentioned earlier that workers are two types based on the duration of work during the last year. As such, the marginal workers assume less importance from main workers as they are engaged in work during the minimum times (less than six months or 183 days) of the year. Thus, the study of work participation rates based on marginal workers shows the extent of workforce not fully employed.

7.1.5 Work Participation Rates (Marginal Workers), 2001-2011 by Sex

Table.5. Work Participation Rate (Marginal), Malda, by Sex, 2001-2011

Workers	2001	2011
Total Workers (%)	11.4	12.2
Male (%)	7.88	11.43
Female (%)	15.01	13.02

Source: Computed by me from Census of India, 2001 and 2011

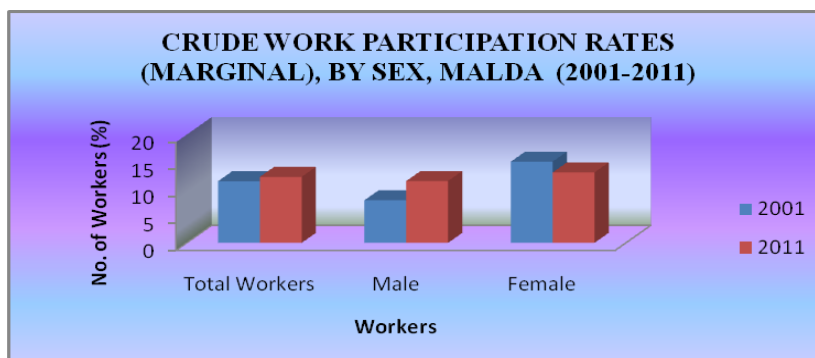


Figure.6. Crude Work Participation Rate (Marginal Workers), by Sex, Malda 2001-2011

Figure.6. shows the crude work participation rate of marginal workers by sex during the Study periods. It is found that total crude work participation rate (marginal workers by

sex) is increased from 2001 to 2011. Though female work participation rate is decline at the same time. So in case of marginal workers, male employment rate is increased in Malda.

7.1.6. Work Participation Rates (Marginal Workers), 2001-2011 by Residence

Table.6. Work Participation Rate (Marginal), Malda, by Residence, , 2001-2011

Workers	2001	2011
Total Workers (%)	11.4	12.2
Rural Workers (%)	12.1	12.98
Urban Workers (%)	2.3	7.3

Source: Computed by me from Census of India, 2001 and 2011

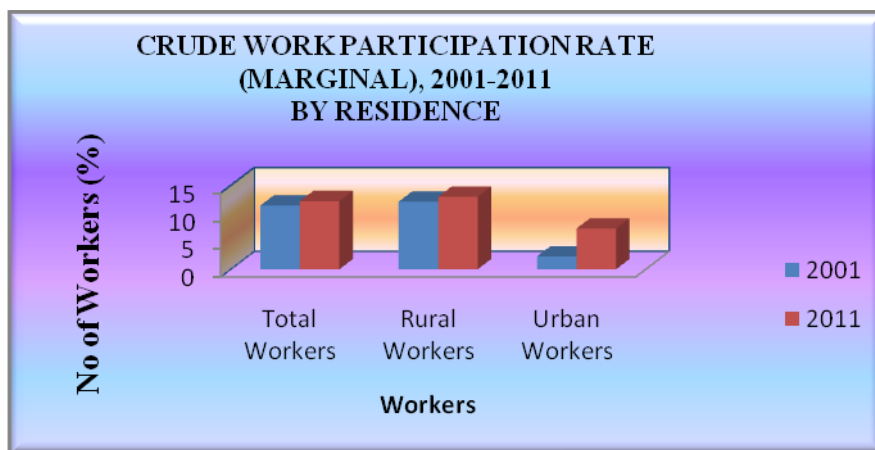


Figure.7. Crude Work Participation Rate (Marginal), 2001-2011 by Residence

Figure.7. shows the crude work participation rate (marginal workers) by residence during the study periods. From the represented cartogram it is revealed that total crude work participation rate (marginal) have increased from 2001 to 2011.

In case of marginal workers both of rural and urban workers have been increased from 2001 to 2011. So, it can be said that in case of marginal worker (both of rural and urban) the employment rate have increased in the Malda district.

7.1.7 Work Participation Rate in Malda District

Table.7. Block Wise WRP in Malda District (2001-2011)

Blocks	WRP in 2001	WRP in 2011
Harischandrapur 1	32.3	35.17
Harischandrapur 2	41.8	31.33
Chachal 1	35.4	38.01
Chachal 2	39.1	34.41
Ratua 1	34.3	32.81
Ratua 2	36.8	32.27
Gazole	41.5	42.49
Bamongola	41.1	42.55
Habibpur	46.9	45.83
Old Malda	40	40.37
English Bazar	33.5	36.19
Manikchak	37.3	42.67
Kaliachak 1	58	44.67
Kaliachak 2	43.2	42.41
Kaliachak 3	46.6	31.78

Source: Computed by me from Census of India, 2001 and 2011

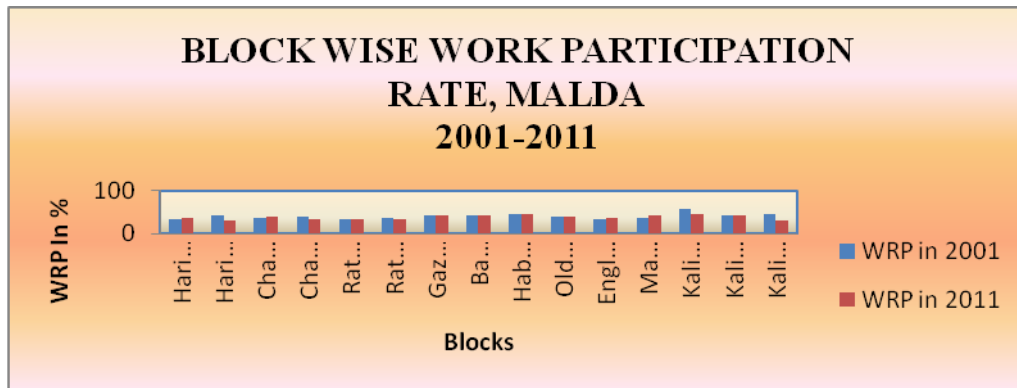


Figure:8. Block Wise WRP, Malda, 2001-2011

Total worker share of Block in Malda district is insignificant change with time. Interesting change is observed in Kaliachak 1 block. There is negative trend of workers .But most of the cases the rate is grown up slowly with changes of time which simplifies that the scope of works is slowly increased with time. So the level and structure of workers has changed with decade change.

Non-Agricultural workers are these workers who are economically engaged in non-agricultural sector. In 2001 census workers are categorized into four categories. These are Cultivators, Agricultural Labourers, Household Industry and Other Workers. First two types are engaged agri cultural activities, but rest two types are engaged non-agricultural activities. Thus, Household Industry and Other Workers is called non-agricultural workers.

7.2 Workforce in Non-Agricultural Sector

7.2.1 All Non-Agricultural Workers (Main + Marginal)

Table.8.Non agricultural Workers (Main + Marginal), Malda

Workers	2001	2011
Total Workers (%)	48.45	47.92
Male (%)	41.9	41.51
Female (%)	61.29	63.34

Source: Computed by me from Census of India, 2001 and 2011

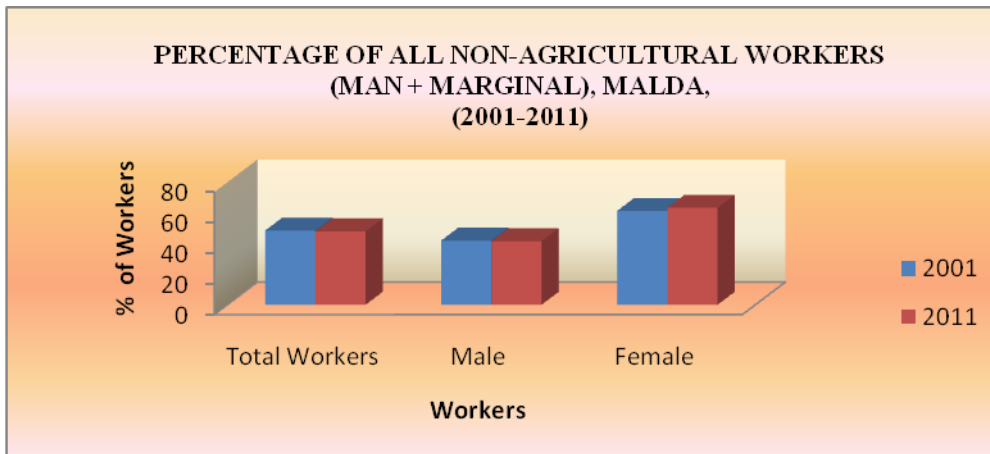


Figure.9. Percentage of Total Non-Agricultural Workers in Total Workers, Malda 2001-2011

This diagram shows that the dependency of men on non-agricultural sector has gradually decreased from 2001 to 2011 census year. But female workers have increased in number.

But the rate of decrease and increase of workers are very little. So it can be said that the change of workers (%) is very low.

7.2.2 Rural Non-Agricultural Workers (Main + Marginal)

Table.9.Rural Non-Agricultural Workers (Main+ Marginal)

Workers	2001	2011
Total Workers (%)	42.85	41.08
Male (%)	37.6	33.56

Female (%)	60.17	58.79
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Source: Computed by me from census of India, 2001 and 2011

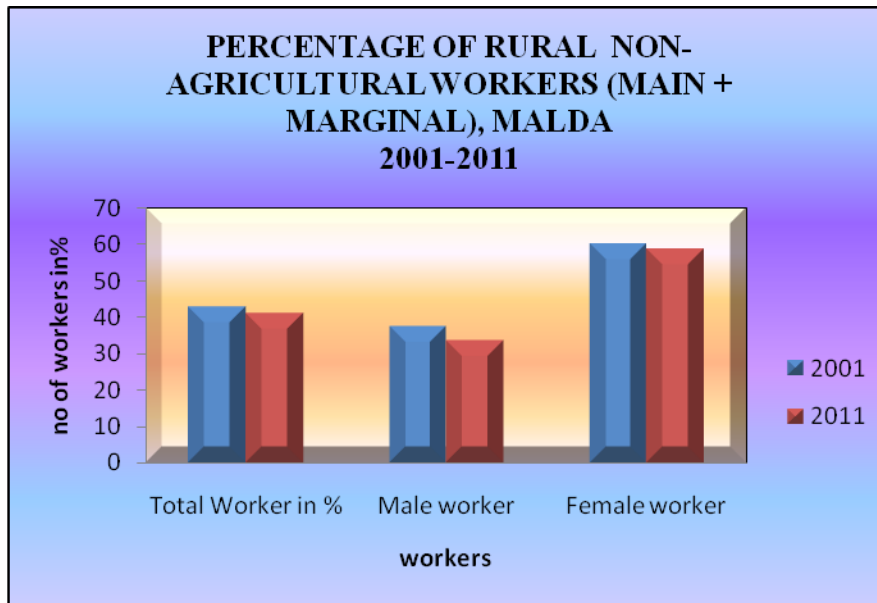


Figure.10. Percentage of Rural Non-Agricultural Workers in Total Workers, Malda 2001-2011

Change of non agricultural workers in rural areas from 2001 to 2011 is towards negative. Both male and female workers are decreased with changes of census year. But the

rate of decreasing is very low. It simplifies that people are running towards agricultural activities.

7.2.3. Urban Non-Agricultural Workers (Main + Marginal)

Table.10. Urban Non Agricultural Workers (Main + Marginal), Malda

Workers	2001	2011
Total Workers(%)	98.14	92.66
Male	98.27	91.05
Female	97.57	96.9

Source: Computed by me from census of India, 2001 and 2011

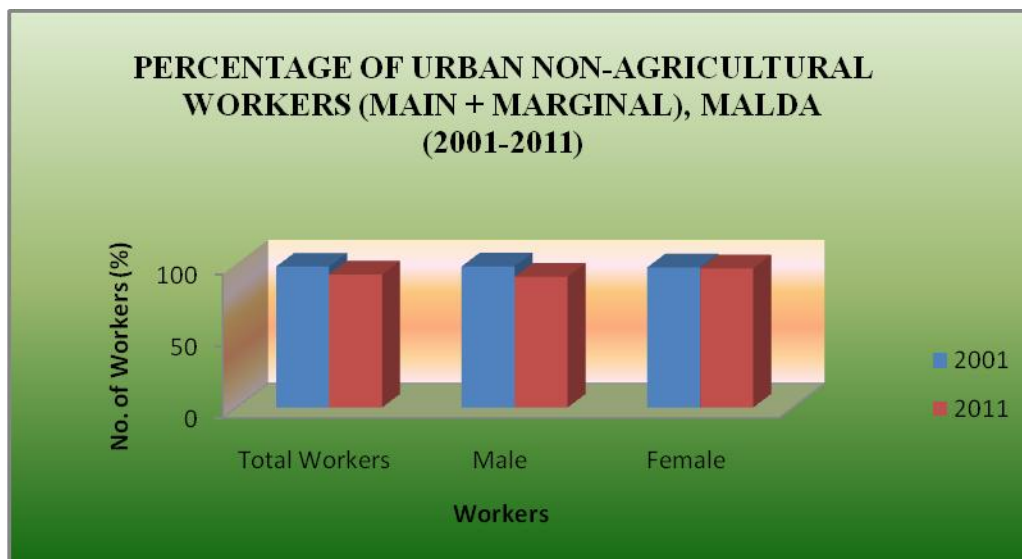


Figure.11. Percentage of Urban Non-Agricultural Workers(Main + Marginal), Malda 2001-2011

The percentage of workers has decreased from 98.14% to 92.66% in total. Not only total workers but also male and female workers are also decreased with changes of time. But there is no significant change of workers in Malda district. This

indicates that population growth and scope of non agricultural work are more or less equal.

7.2.4. Non Agricultural Workers, 2001-2011

Worker's share is a major indicator to show the level and structure of an area. Because every society is stood up on workforce. So if the participation rate is more than non

participation population, it is predicted that the society is independent.

Table:11. Block wise Non agricultural Workers in Malda, 2001-2011

Blocks	2001	2011
Harischandrapur 1	22.5	24.6
Harischandrapur 2	28.9	20.71
Chachal 1	28.1	26.09
Chachal 2	24.5	21.66
Ratua 1	31.4	34.75
Ratua 2	39.5	35.02
Gazole	22.1	25.13
Bamongola	16.1	19.22
Habibpur	23.5	25.39
Old Malda	39.9	42.54
English Bazar	63.3	68.47
Manikchak	75.5	43.55
Kaliachak 1	59.6	83.2
Kaliachak 2	69	65.76
Kaliachak 3	67.1	62.81

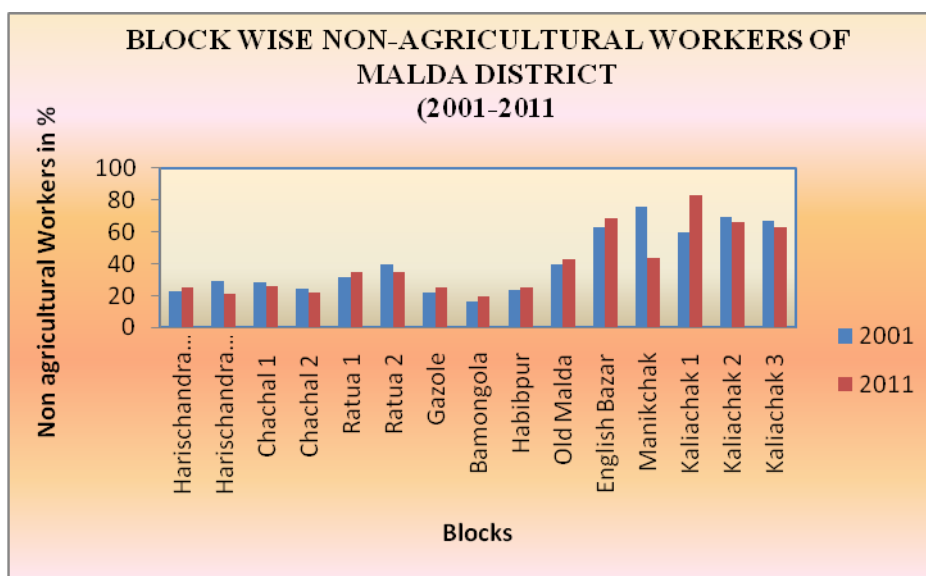


Figure:12. Block wise Non agricultural Worker, Malda, 2001 and 2011

Maximum non-agricultural workers share is observed at Kaliachak I block. The rate is increased from 59.6% to 83.2% It indicates that the possibility of works is increased from earlier to present. There is no significant change of non-agricultural workers. In Most of the block the participation rate is increased from 2001 to 2011. The rate is decreased only in case of Manikchak, Kaliachak3 and Kaliachak3.

8. Industrial Category of the Workers

In 2001 census, workers were categorized into four industrial categories, i.e. cultivators, agricultural labourers, household industries and other workers. The first two types are

related to agricultural activities while the rest are treated as non-agricultural workforce.

I. Cultivators

According to census definition, cultivators included persons engaged in cultivation of land owned or held from government or private persons or institutions for payment in money, kind or share. It includes effective supervision or direction in cultivation.

II. Agricultural labourers

The agricultural labourers are defined as a person who works on another person's land for wages in money or kind or share is regarded as agricultural labourers. He has no risk in the cultivation but merely works on another person's land on wages. The agricultural labourers are usually more economically and socially vulnerable group in our society.

III. Household Industry

A household industry is defined as an industry conducted by one or more numbers 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. The larger proportion of workers in the household industry should consist of household members. The industry should not be run on the scale of registered factory, which would qualify to be registered under the Indian Factory Act.

IV. Other Workers

All those who had worked in any field of economic activity other than cultivation, Agricultural Labourers or workers in the household industry are classified as other workers.

The table:12 shows the industrial classification of workers. The Workers are subdivided into four industrial categories. These are cultivators, agricultural labourers, household industry and other workers. In 2001 census shows that the highest share is of agricultural labourers and the lowest share is of household industry indicating that household industry is not well developed in the study region.

In 2011 census, shows that the highest share of industrial workers is of household industry and lowest share is of cultivators that indicates the cultivators is not well developed in this region at the decade of 2001-2011.

Industrial Classification of Total Workers

Table:12. Industrial Classification of Workers, Malda

Workers	2001		2011	
	Male	Female	Male	Female
Cultivators(%)	27.51	7.74	20.81	6.44
Agricultural Labourers(%)	30.59	30.97	37.68	30.22
Household Industry(%)	4.83	36.75	33.06	35.61
Others Workers(%)	37.07	24.53	38.2	27.73

Source: Computed by me from census of India, 2001 and 2011

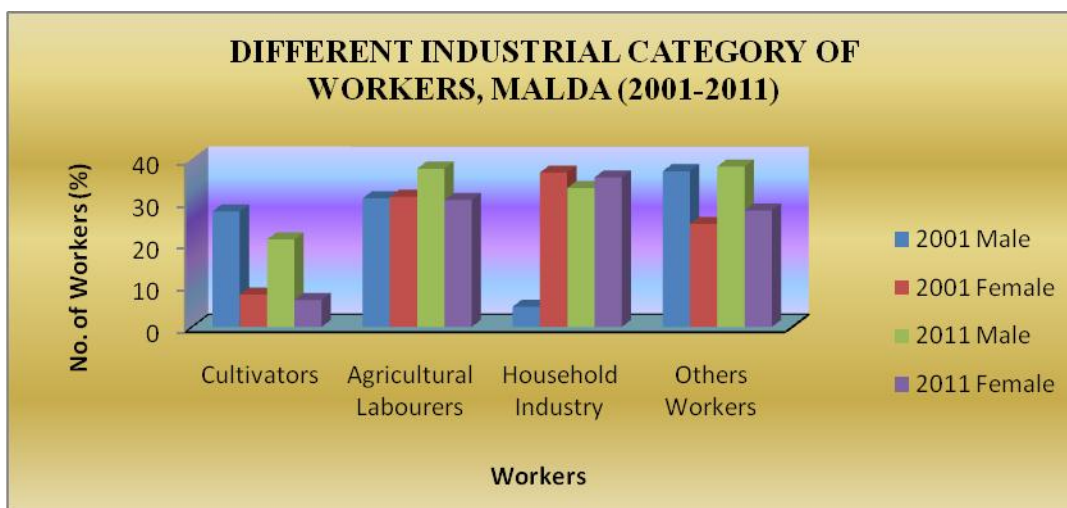


Figure. 13. Different Industrial Category of Workers, Malda 2001-2011

From the examine of above table and represented cartograms it is revealed that in 2001 the share of household industry was very insignificant but in the following decade its share increased and it is the highest share in this decade.

9. Gender Disparity of Workers

Disparity in general refers to inequalities in some quantity between two or more groups. Gender Disparity refers, then, to statistical differences in the possessions, statuses, and opportunities between men and women.

Table:13. Gender Disparity of Workers of the different blocks of Malda

Blocks	Male Worker (%)	Female Worker (%)	Sophers Index Of Gender Disparity
Harischandrapur 1	54.52	14.43	0.619776797

Harischandrapur 2	50.3	10.89	0.703774038
Chachal 1	57.73	17.25	0.56998194
Chachal 2	53.35	14.43	0.609289776
Ratua 1	50.53	14.17	0.591266554
Ratua 2	51.05	8.68	0.80952844
Gazole	56.4	28.15	0.3443793
Bamongola	58.16	26	0.39432676
Habibpur	57.6	33.74	0.275231448
Old Malda	57.22	22.67	0.446237241
English Bazar	53.02	17.97	0.510631806
Manikchak	50.37	20.99	0.418396104
Kaliachak 1	50.49	38.17	0.157661745
Kaliachak 2	50.98	33.96	0.213555917
Kaliachak 3	49.33	39.76	0.128791737

Source: Computed by me from Census of India, 2011

From the calculation of Sopher's Index of Gender Disparity it is observed that Ratua-2 block of Malda district is highest gender disparity among the given blocks of Malda district, 2011. It is also observed that kaliachak-3 have lowest gender disparity (0.128791737).

10. Major Finding

1. The level of work participation rate is not so well like other districts of west Bengal such as Kolkata, Hoogly, Howrah etc. Here, the dependency population is maximum then the working population. Both male and female work participation rate is declined from 2001 to 2011. Perhaps this may occur due to high population growth as compared to increase of working scope.
2. In case of rural and urban sectors the work participation rate is also influenced due to high birth rate and there is no significant change in inter block participation rate.
3. In case of non-agricultural sector almost half of the total working population is employed. The rate is changed from almost 49% to 48% in the decade of 2001-2011. Female participation rate is increased in case of non-agricultural sectors.

4. The growth of cultivator workers in the industrial categories are declined significantly. But there is a few change of working population in the agricultural work. More or less 28.23% male household industry workers are significantly increased. Other workers are also increased significantly.
5. In case of gender disparity of workers in different block of Malda district there is no significant disparity.

11. Conclusion

Malda district is one of the important districts of West Bengal where workers play an important role to stand the society. The participation rate of workers in Malda district is more or less 39%. The dependency rate is maximum in all blocks of the district. Gender Disparity is also seen interestingly. In all cases female participation rate is less than the male participation rate either rural or urban. But in case of non agricultural sector the female work participation rate is increased from 2001 to 2011. So it is no said that the district is a well level of the status of worker. But if the scope of employment in all sectors either agricultural or non-agricultural, the district improves its disparities and rate of participation. Then the District will be developed equally with the blocks.

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