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Ministry of Housing and Public Works
Urban Development Directorate
82 Segunbagicha, Dhaka-1000

PREPARATION OF DEVELOPMENT PLAN FOR MEHERPUR ZILLA

REPORT ON ASSIGNMENT-1

Analysis on Demographic and Population of Gangni and Meherpur Pourashava

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Demographic and Population Analysis of Gangni and Meherpur Pourashava

1 Demographic Condition of Gangni Pourashava

1.1 Population and Household

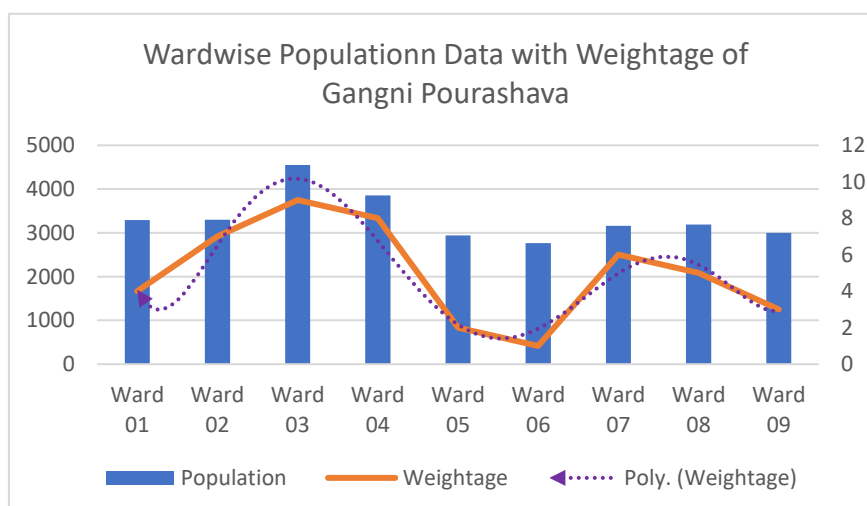
1.1.1 Population Status

According to Population Census, 2022, the total population of the Gangni Pourashava is 30063 of which 14548 males and 15515 females and number of total households are 8143. The Sex Ratio of the Pourashava is 94 and the literacy rate is 76.89%. The following table shows the distribution of Population and Household in different wards of the Pourashava.

Table 1-1: Population of Gangni Pourashava according to BBS, 2022

Ward No	Population 2022			Households	Sex ratio	Literacy Rate
	Total	Male	Female			
Ward No- 1	3289	1599	1690	866	95	74.98%
Ward No- 2	3303	1538	1765	928	87	72.05%
Ward No- 3	4549	2163	2386	1265	91	74.91%
Ward No- 4	3855	1902	1953	1038	97	89.98%
Ward No- 5	2941	1460	1481	768	99	80.34%
Ward No- 6	2767	1330	1437	760	93	71.76%
Ward No- 7	3164	1537	1627	853	94	69.09%
Ward No- 8	3193	1565	1628	860	96	88.80%
Ward No- 9	3002	1454	1548	805	94	70.10%
Total	30063	14548	15515	8143	94	76.89%

Source: Bangladesh Bureau of Statistics, 2022



The chart illustrates the **ward-wise population data with weightage in Gangni Pourashava**, where blue bars represent total population, the orange line indicates assigned weightage, and the purple dotted line shows the polynomial trendline for weightage distribution. Notably, **Wards 3 and 4** have the highest population, while weightage follows an increasing trend until Ward 3 before declining sharply and stabilizing around Ward 7. The trendline highlights fluctuations in weightage distribution, providing a clearer understanding of demographic variations across different wards.

1.1.2 Housing Structure

About more half of the housing in the Pourashava is Pucca. Pucca structure is 53.45 percent, Semi-permanent (Semi-Pucca) 28.29 percent, katcha is about 18.20 percent and jhupri only 0.6 percent

Table 1-2: Average Household Structure in the Gangni Pourashava

Ward No	Housing Structure			
	Pucca	Semi- Pucca	Katcha	Jhupri
Ward No- 1	35.12	34.89	29.99	0.00
Ward No- 2	60.71	21.54	17.53	0.22
Ward No- 3	47.69	30.33	21.89	0.08
Ward No- 4	73.99	21.59	4.32	0.10
Ward No- 5	50.33	31.74	17.80	0.13
Ward No- 6	49.27	27.49	23.24	0.00
Ward No- 7	51.65	26.59	21.76	0.00
Ward No- 8	68.25	28.18	3.57	0.00
Ward No- 9	40.85	33.75	25.40	0.00
Pourashava Total	53.45	28.29	18.20	0.06

Source: Bangladesh Bureau of Statistics, 2022

1.2 Socio-Economic Characteristics

1.2.1 Religion Status

Like most part of Bangladesh, the dominant populations by number are the Muslims. Hindus come next and then the other religions. The following table shows the population distribution among religions in Gangni Pourashava.

Table 1-3: Population distribution among Religious in the Gangni Pourashava

Ward No	Muslim		Hindu		Christan		Buddhist		Others	
	Pop	%	Pop	%	Pop	%	Pop	%	Pop	%
Ward No- 1	3288	99.97	1	0.03	0	0	0	0	0	0
Ward No- 2	3295	99.76	8	0.24	0	0	0	0	0	0
Ward No- 3	4290	94.31	84	1.85	175	3.85	0	0	0	0
Ward No- 4	3741	97.04	103	2.67	11	0.29	0	0	0	0
Ward No- 5	2923	99.39	18	0.61	0	0	0	0	0	0
Ward No- 6	2732	98.74	21	0.76	0	0	0	0	14	0.51
Ward No- 7	2967	93.77	197	6.23	0	0	0	0	0	0
Ward No- 8	3076	96.34	116	3.63	1	0.03	0	0	0	0
Ward No- 9	2940	97.93	62	2.07	0	0	0	0	0	0
Pourashava Total	29252	97.30	610	2.03	187	0.62	0	0	14	0.05

Source: Bangladesh Bureau of Statistics, 2022

In the table above it can be seen that about 97.30 percent of the people are Muslim. Ward No.7 has the highest percentage of Hindu population in the Pourashava. It is almost 6.23 percent among the ward. Christian and Buddhist number is very negligible.

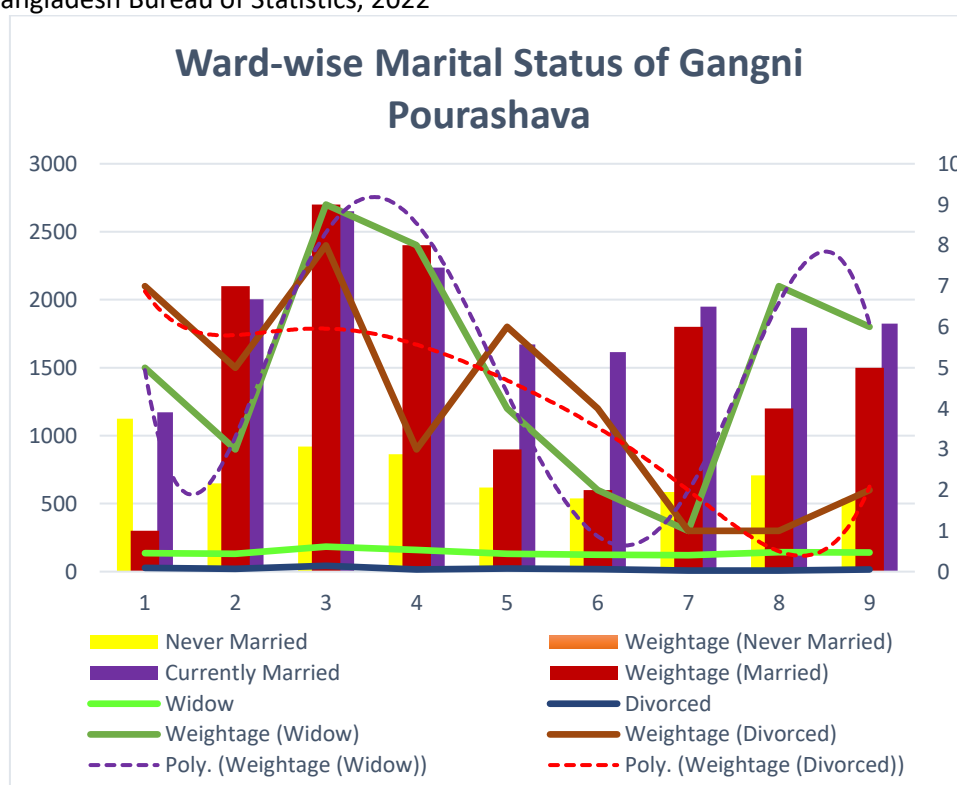
1.2.2 Marital Status

The following table shows the marital status of people in Gangni Pourashava. The data source is the population census, 2022. The table shows that about total 3657 males are never married and 8259 males are married. For female these numbers are 2462 and 8259. Number of unmarried male is highest in ward 1 and female is also in ward no. 1

Table 1-4: Marital Status of Gangni Pourashava

Ward No	Never Married		Currently Married		Widow		Divorced		Seperated	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Ward No- 1	698	428	270	901	11	126	7	20	3	6
Ward No- 2	353	296	922	1082	7	124	5	15	1	2
Ward No- 3	522	399	1225	1426	21	163	10	33	1	8
Ward No- 4	502	361	1071	1166	12	148	5	11	1	5
Ward No- 5	397	221	778	893	11	121	7	16	1	7
Ward No- 6	335	204	746	868	11	113	6	13	6	11
Ward No- 7	364	222	911	1037	16	105	1	7	0	2
Ward No- 8	423	285	846	948	14	128	0	8	3	15
Ward No- 9	333	204	859	966	12	128	3	12	1	4
Total	3657	2462	8259	9412	115	1156	44	135	17	60

Source: Bangladesh Bureau of Statistics, 2022



The chart presents the **ward-wise marital status of Gangni Pourashava**, displaying different categories such as **Never Married, Currently Married, Widows, and Divorced individuals** across various wards.

The colored bars represent the actual numbers, while weightage trends are illustrated with respective lines. The polynomial trendlines for **widow and divorced weightages** highlight variations in distribution. Wards **3 and 4** have the highest number of currently married individuals, whereas widow and divorced populations remain relatively low but fluctuate across different wards. This visualization provides an insightful demographic comparison of marital status within Gangni Pourashava.

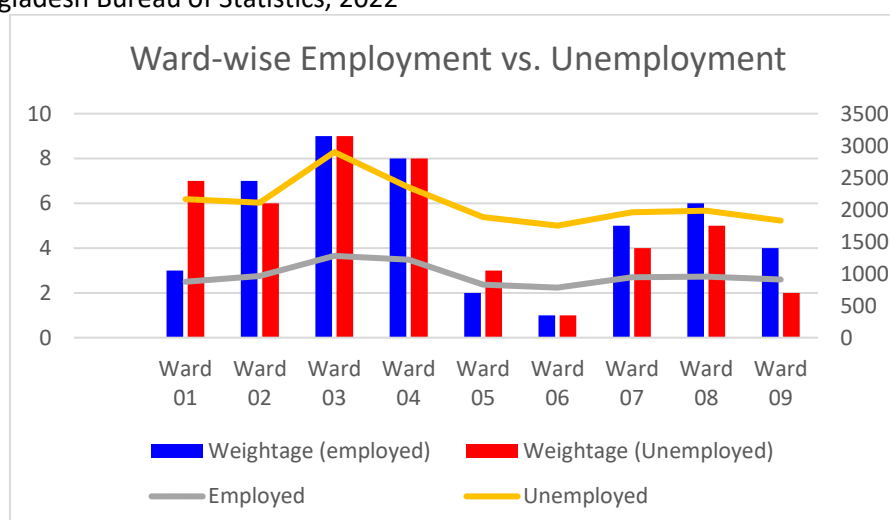
1.2.3 Employment Status

The employment status of Pourashava shows male are engaged in different occupations than female whereas most of the female are engaged in household work. The following table shows the employment status of Gangni Pourashava

Table 1-5: Employment Status of Gangni Pourashava

Ward No	Employed		Household Work		Looking For work		Do not Work	
	Male	Female	Male	Female	Male	Female	Male	Female
Ward No- 1	824	49	83	1047	11	3	540	482
Ward No- 2	854	110	31	948	15	6	526	583
Ward No- 3	1118	160	72	1281	25	20	756	745
Ward No- 4	1004	214	8	975	38	23	696	611
Ward No- 5	751	76	11	916	9	2	572	372
Ward No- 6	714	68	5	825	11	11	487	411
Ward No- 7	872	73	17	937	17	9	498	479
Ward No- 8	841	114	19	865	19	14	550	518
Ward No- 9	866	45	40	965	20	7	391	406

Source: Bangladesh Bureau of Statistics, 2022

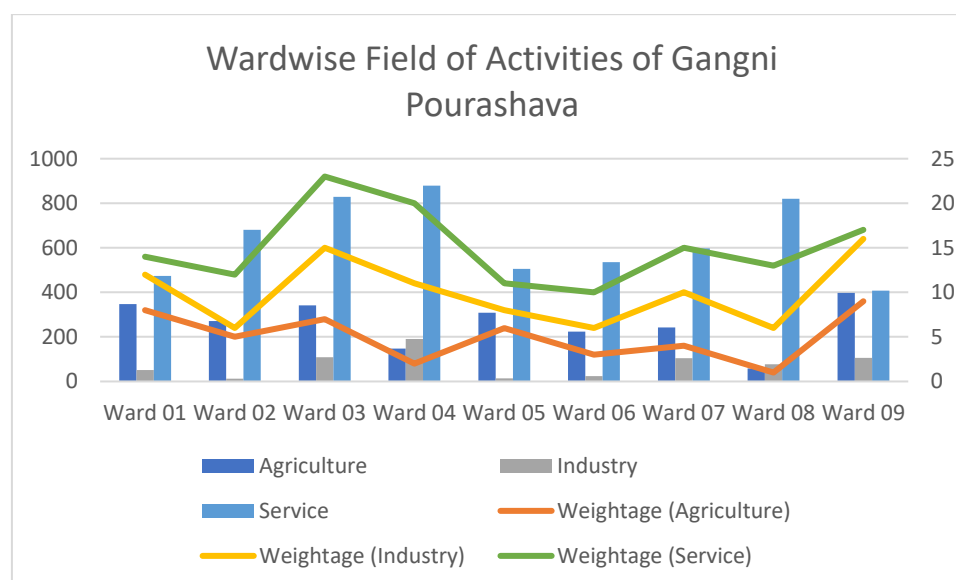


The chart illustrates the **ward-wise employment vs. unemployment scenario** in Gangni Pourashava. The **blue bars** represent the weightage of employed individuals, while the **red bars** show the weightage of unemployed individuals across different wards. The **gray line** indicates the total number of employed individuals, whereas the **yellow line** represents the unemployed population. Wards **03 and 04** have the highest employment and unemployment rates, while **Ward 06** has the lowest unemployment. The trendlines highlight the fluctuations, giving a comparative view of employment status across the wards.

Table 1-6: Employment Field of Gangni Pourashava

Ward No	Agriculture		Industry		Service	
	Male	Female	Male	Female	Male	Female
Ward No- 1	344	4	50	1	430	44
Ward No- 2	266	5	13	0	575	105
Ward No- 3	333	8	101	7	684	145
Ward No- 4	146	2	183	8	675	204
Ward No- 5	302	6	14	0	435	70
Ward No- 6	218	5	24	0	472	63
Ward No- 7	238	5	105	0	529	68
Ward No- 8	57	1	77	0	707	113
Ward No- 9	394	4	104	2	368	39

Source: Bangladesh Bureau of Statistics, 2022



The data highlights the employment distribution across different sectors in various wards, showing that **Ward 04** is highly **agriculture-dependent**, while **Ward 09** is strongly **service-oriented**. **Ward 07** has a **balanced economy** with significant employment in all three sectors. The **industry** sector is most prominent in **Ward 07 and Ward 09**, whereas **Ward 05** has minimal industrial activity. **Ward 01 and Ward 07** also have a high service sector presence, reflecting urbanization. The findings suggest a need for **targeted economic planning**, where industry can be expanded in underdeveloped areas, and service sector growth can be leveraged for urban development.

1.3 Result

Based on the analysis of employment, marital status, and population weightage, **Wards 06, 07, and 09** are in a relatively better socio-economic position, exhibiting lower unemployment rates, a stable employment-to-unemployment ratio, and balanced marital demographics with fewer widowed and divorced individuals. In contrast, **Wards 03 and 04** face challenges such as higher unemployment, significant numbers of widowed and divorced individuals, and population instability, indicating potential social and economic vulnerabilities. In terms of sectoral employment distribution, Ward 04 is highly agriculture-dependent, while **Ward 09** is strongly service-oriented. **Ward 07** maintains a

balanced economy, with significant employment across agriculture, industry, and services. The industry sector is most prominent in **Wards 07 and 09**, whereas **Ward 05** has minimal industrial activity. Additionally, **Wards 01 and 07** have a high service sector presence, reflecting urbanization. These insights suggest a need for targeted economic planning, where industry can be expanded in underdeveloped areas, and the service sector's growth can be leveraged for urban development, while social welfare initiatives should focus on Wards 03 and 04 to enhance stability.

2 Demographic Condition of Meherpur Pourashava.

2.1 Population and Household

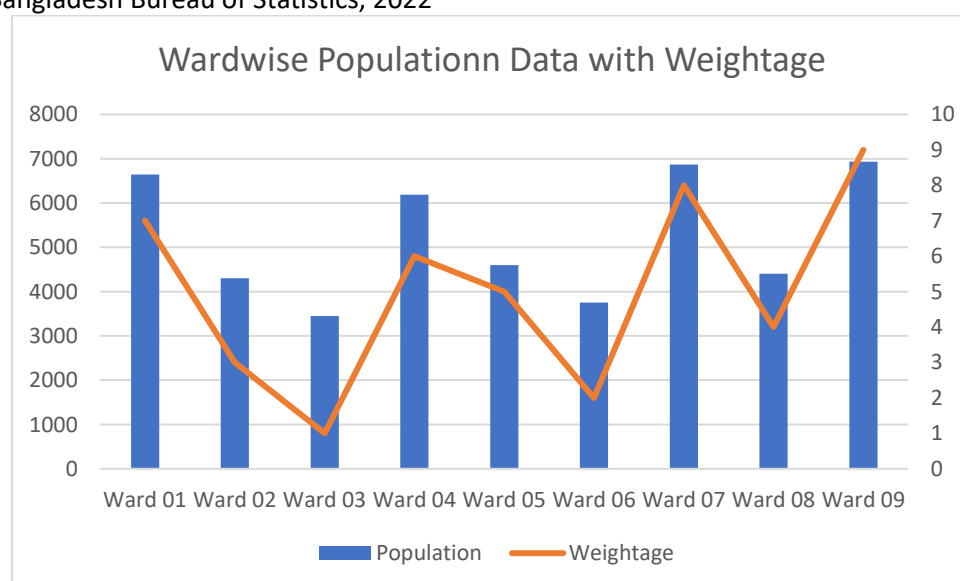
2.1.1 Population Status

According to Population Census, 2022, the total population of the Meherpur Pourashava is 47133 of which 23218 males and 23915 females and number of total households are 12494. The Sex Ratio of the Pourashava is 97 and the literacy rate is 82.03 percent. The following table shows the distribution of Population and Household in different wards of the Pourashava.

Table 2-1: Population of Meherpur Pourashava according to BBS, 2022

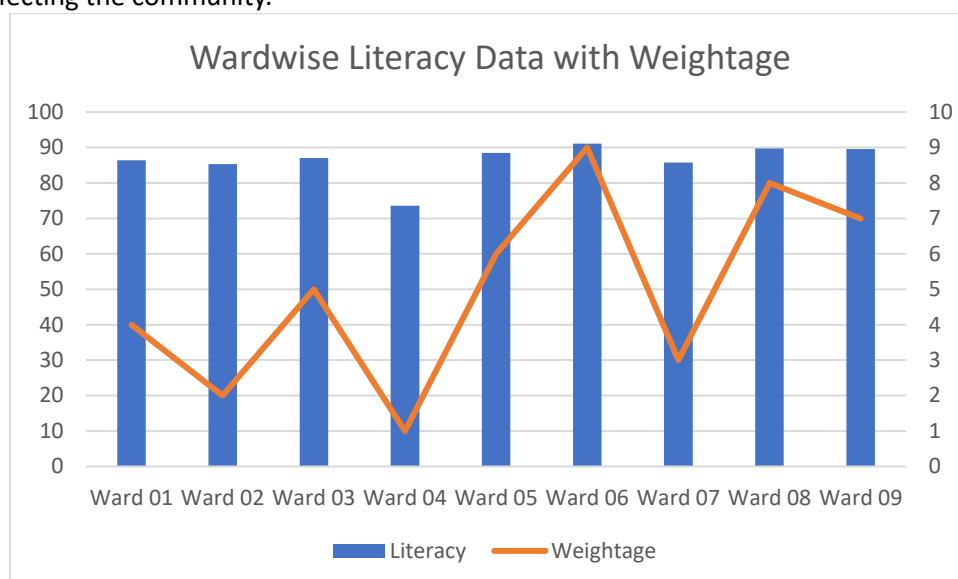
Ward No	Population 2022			Households	Sex ratio	Literacy Rate
	Total	Male	Female			
Ward No- 1	6645	3315	3330	1761	100	86.43
Ward No- 2	4299	2123	2176	1087	98	85.33
Ward No- 3	3449	1666	1783	894	93	87.02
Ward No- 4	6191	2981	3210	1655	93	73.62
Ward No- 5	4596	2248	2348	1210	96	88.47
Ward No- 6	3749	1769	1980	998	89	91.14
Ward No- 7	6870	3301	3569	1908	92	85.75
Ward No- 8	4405	2286	2119	1153	108	89.75
Ward No- 9	6929	3529	3400	1828	104	89.55
Total	47133	23218	23915	12494	97	82.03

Source: Bangladesh Bureau of Statistics, 2022



This graph presents **ward-wise population data** along with their respective **weightage** in Meherpur Pourashava. The blue bars indicate the total population in each ward, while the orange line represents

the assigned weightage. Wards **01, 04, 07, and 09** have the highest population, whereas **Ward 06** has the lowest. The weightage follows a fluctuating trend, peaking in **Ward 07 and Ward 09**, suggesting that these wards hold significant demographic importance. The alignment between population and weightage varies across wards, indicating potential differences in social, economic, or infrastructural factors affecting the community.



This graph illustrates **ward-wise literacy rates** alongside their **weightage** in Meherpur Pourashava. The blue bars indicate the literacy percentage in each ward, while the orange line represents the weightage assigned. Most wards exhibit **high literacy rates**, with **Ward 06, 08, and 09** reaching nearly **90%**. However, **Ward 05** shows a noticeable dip in literacy levels. The weightage fluctuates significantly, peaking at **Ward 06 and Ward 08**, indicating their higher importance in literacy-related demographics. The contrast between literacy and weightage suggests that some areas with lower literacy may require more attention in educational policies.

2.1.2 Housing Structure

About more half of the housing in the Pourashava is Pucca. Pucca structure is 7930 in number, Semi-permanent (Semi-Pucca) 2677 nos, katcha is about 1701 nos and jhupri only 48 in number.

Table 2-2: Average Household Structure in the Gangni Pourashava

Ward No	Housing Structure			
	Pucca	Semi- Pucca	Katcha	Jhupri
Ward No- 1	1187	393	160	0
Ward No- 2	706	211	160	0
Ward No- 3	533	242	118	0
Ward No- 4	884	260	511	0
Ward No- 5	710	261	220	5
Ward No- 6	733	187	61	10
Ward No- 7	1263	428	198	4
Ward No- 8	836	207	57	11
Ward No- 9	1078	488	216	18
Pourashava Total	7930	2677	1701	48

Source: Bangladesh Bureau of Statistics, 2022

2.2 Socio-Economic Characteristics

2.2.1 Religion Status

Like most part of Bangladesh, the dominant populations by number are the Muslims. Hindus come next and then the other religions. The following table shows the population distribution among religions in Meherpur Pourashava.

Table 2-3: Population distribution among Religious in the Gangni Pourashava

Ward No	Muslim		Hindu		Christan		Buddhist		Others	
	Pop	%	Pop	%	Pop	%	Pop	%	Pop	%
Ward No- 1	6307	94.90	318	4.78	20	0.30	1	0.02	0	0
Ward No- 2	3379	78.60	920	21.40	0	0	0	0	0	0
Ward No- 3	3260	94.52	189	5.48	0	0	0	0	0	0
Ward No- 4	6171	99.68	20	0.32	0	0	0	0	0	0
Ward No- 5	4501	98.13	84	1.83	2	0.04	0	0	0	0
Ward No- 6	3417	91.14	332	8.86	0	0	0	0	0	0
Ward No- 7	6689	97.45	171	2.49	4	0.06	0	0	0	0
Ward No- 8	4245	96.54	145	3.30	7	0.16	0	0	0	0
Ward No- 9	6740	97.60	143	2.07	22	0.32	1	0.01	0	0
Pourashava Total	44709	94.95	2322	4.93	55	0.12	2	0.00	0	0

Source: Bangladesh Bureau of Statistics, 2022

In the table above it can be seen that about 94.95 percent of the people are Muslim. Ward No.6 has the highest percentage of Hindu population in the Pourashava. It is almost 8.86 percent among the ward. Christian and Buddhist number is very negligible.

2.2.2 Marital Status

The following table shows the marital status of people in Meherpur Pourashava. The data source is the population census, 2022. The table shows that about total 6433 males are never married and 12092 males are married. For female these numbers are 4123 and 14295. Number of unmarried males is highest in ward 1 and female is also in ward no. 1

Table 2-4: Marital Status of Meherpur Pourashava

Ward No	Never Married		Currently Married		Widow		Divorced		Seperated	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Ward No- 1	1415	870	545	1915	28	277	7	14	8	14
Ward No- 2	557	380	1207	1264	26	219	9	14	2	4
Ward No- 3	403	261	998	1124	19	151	10	14	1	3
Ward No- 4	721	447	1758	1982	28	313	18	41	1	15
Ward No- 5	518	351	1354	1464	16	204	6	25	5	7
Ward No- 6	426	335	1037	1132	18	200	5	26	3	6

Ward No- 7	833	602	1899	2078	30	339	5	40	3	20
Ward No- 8	740	381	1201	1276	19	153	5	8	1	12
Ward No- 9	820	496	2093	2060	24	294	11	42	8	24
Total	6433	4123	12092	14295	208	2150	76	224	32	105

Source: Bangladesh Bureau of Statistics, 2022

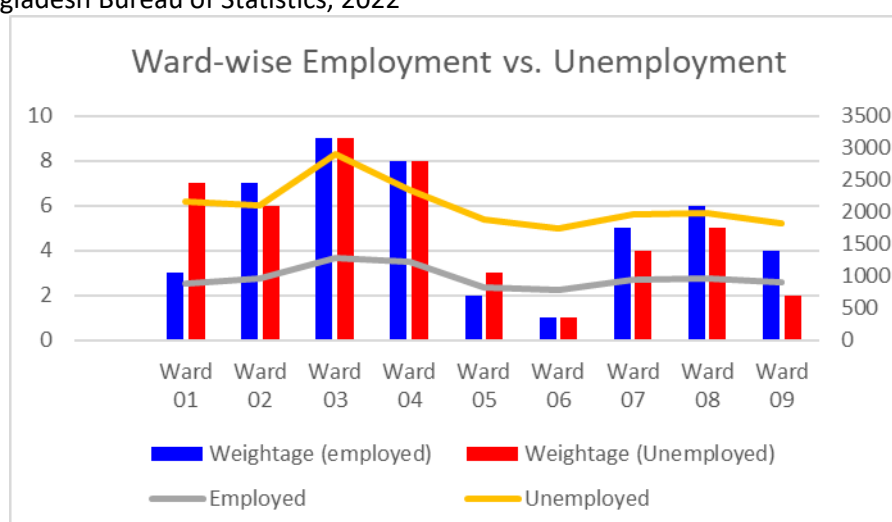
2.2.3 Employment Status

The employment status of Pourashava shows male are engaged in different occupations than female whereas most of the female are engaged in household work. The following table shows the employment status of Meherpur Pourashava

Table 2-5: Employment Status of Meherpur Pourashava

Ward No	Employed		Household Work		Looking For work		Do not Work	
	Male	Female	Male	Female	Male	Female	Male	Female
Ward No- 1	1881	175	11	1891	68	45	1111	1003
Ward No- 2	1236	138	12	1295	30	18	690	576
Ward No- 3	976	82	9	1087	25	8	531	486
Ward No- 4	1810	129	17	1982	28	20	888	853
Ward No- 5	1367	137	9	1469	37	7	663	571
Ward No- 6	1011	162	5	1011	39	33	569	646
Ward No- 7	1837	315	95	1921	27	6	1066	1063
Ward No- 8	1204	154	4	1210	31	8	907	596
Ward No- 9	1956	331	13	1707	40	23	1231	1093

Source: Bangladesh Bureau of Statistics, 2022



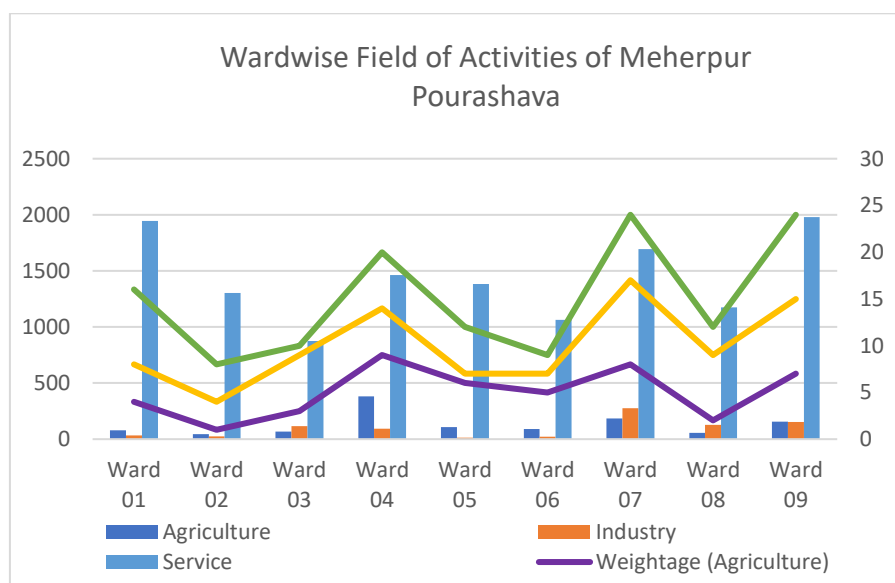
his graph presents **ward-wise employment and unemployment data** in Meherpur Pourashava. The **blue bars** represent employment weightage, while the **red bars** indicate unemployment weightage. The **gray line** shows the actual number of employed individuals, whereas the **yellow line** represents the unemployed population. **Ward 03 and Ward 04** exhibit the highest employment rates, but they also show significant unemployment, suggesting a larger workforce. **Ward 06 has the lowest unemployment rate**, indicating better job distribution. However, **Wards 01, 02, and 08** display a

relatively balanced employment-unemployment ratio. This data highlights the disparity in job opportunities across different wards.

Table 2-6: Employment Field of Meherpur Pourashava

Ward No	Agriculture		Industry		Service	
	Male	Female	Male	Female	Male	Female
Ward No- 1	80	4	32	4	1944	8
Ward No- 2	46	1	24	3	1304	4
Ward No- 3	67	3	115	6	876	1
Ward No- 4	381	9	94	5	1464	6
Ward No- 5	108	6	13	1	1383	5
Ward No- 6	89	5	22	2	1062	2
Ward No- 7	184	8	275	9	1693	7
Ward No- 8	55	2	127	7	1176	3
Ward No- 9	156	7	152	8	1979	9

Source: Bangladesh Bureau of Statistics, 2022



The graph illustrates the **ward-wise employment distribution across agriculture, industry, and service sectors** in Meherpur Pourashava, along with the **weightage for agriculture**. **Ward 09 has the highest employment in the service sector**, followed by **Ward 01 and Ward 07**, indicating their urbanized nature. **Ward 04 and Ward 07 show significant agricultural employment**, while industrial employment is highest in **Ward 07 and Ward 09**, highlighting their economic diversity. The **weightage for agriculture** follows a fluctuating pattern, with **Ward 04 and Ward 07 having the highest values**, emphasizing their reliance on farming. In contrast, **Wards 02 and 05 have lower employment in all sectors**, indicating possible economic underdevelopment. Overall, the data suggests **Wards 07 and 09 as economic hubs**, while **Wards 02 and 05 may require targeted development initiatives to enhance industrial and service sector opportunities**.

2.3 Result

The analysis of population, literacy, and employment distribution across Meherpur Pourashava suggests that **Wards 06, 07, and 09 are in the most favorable socio-economic conditions**. **Ward 06**

stands out with the **highest literacy rate, low unemployment, and a balanced population**, making it a strong performer. **Ward 07** also demonstrates **high literacy, stable employment, and economic diversity**, while **Ward 09** has a **strong service sector presence and relatively low unemployment**, contributing to its better socio-economic standing.

In contrast, **Wards 03 and 04, despite having higher employment, also exhibit significant unemployment**, indicating instability. **Wards 01 and 02 struggle with moderate literacy and relatively high unemployment**, suggesting room for improvement. The employment distribution data further highlights that **Ward 09 is the most service-oriented, while Ward 04 and Ward 07 have a strong reliance on agriculture**. The **industry sector thrives in Wards 07 and 09**, showcasing their economic diversity. However, **Wards 02 and 05 have lower employment across all sectors, indicating potential economic underdevelopment**.

Overall, the data suggests that **Wards 07 and 09 act as economic hubs** due to their industrial and service sector strengths, while **Wards 02 and 05 may require targeted development initiatives** to boost economic opportunities in industry and services. Strategic planning can enhance underdeveloped areas while leveraging the economic strengths of the more developed wards.

3 Population Projection of Meherpur District

The cohort-component method is a widely used approach for projecting population growth and demographic changes over time. This method leverages demographic data, including birth rates, mortality rates, and migration patterns, to estimate future population sizes and structures. By analyzing population dynamics through age and gender cohorts, the cohort-component method provides a comprehensive framework to predict demographic shifts at both national and sub-national levels. The method's ability to incorporate various components of population change, such as births, deaths, and net migration, allows for consistent and easily updatable projections. Its outputs include key demographic indicators, such as population size, age distribution, dependency ratios, and rates of population growth, making it an essential tool for policymakers, urban planners, and researchers studying population trends. In this study, the cohort-component method will be utilized to forecast population changes, providing valuable insights into future demographic patterns and helping to inform decision-making processes. The population projection is done based on the cohort component method for Meherpur District. The procedure is given below:

3.1 Cohort component method

The cohort-component method is a commonly used and straightforward approach for population projection. It leverages available data and theoretical insights into population dynamics, considering both causal factors and compositional elements as its core components. This method enables the creation of consistent and comparable projections at both national and sub-national levels, which can be easily updated. It involves a thorough analysis and the development of assumptions for each component of change. Given these advantages, this study adopts the cohort-component method. The summary equation for the population at time (t+n) is defined as follows:

$$P_{t+n} = S[t, t+n] + B[t, t+n] + NM[t, t+n],$$

where $S[t, t+n]$ is the survived population at time $t+n$, $B[t, t+n]$ is the number of births observed in the period $[t, t+n]$ and $NM[t, t+n]$ is the net migration observed in the period $[t, t+n]$. To project the total population size, and the number of males and females by 5-year age groups, this study found the number of people who survive or are expected to be alive in the future. Then the survived population number, the number of births that took place and the number of net migrants is added.

3.2 Inputs and Outputs of the Cohort Component Method

To apply cohort component method, we need base year population by age, assumptions on birth; assumptions on mortality: survival ratios by age; net migration rates. We expect to get a number of

outputs from a population projection using cohort component method: age structure of the population; population aggregates: population size, population in selected broad age groups, mid-interval population size, number of person years lived, population growth, births, deaths, net change due to migration, indicators of the population structure: proportions by broad age groups, dependency ratios, median age of the population, proportion of women in childbearing ages, sex ratio of the population; indicators of the population distribution (national; if urban and rural populations are being projected): proportion urban, proportion rural; rates of population change: crude birth rate, crude death rate, rate of natural increase, crude net migration rates, rate of population growth etc.

To apply the cohort-component method, we need base year population data by age also by sex, along with assumptions regarding birth rates, mortality (expressed as survival ratios by age), and net migration rates. This method allows us to produce a range of outputs, including the age structure of the population and various population aggregates, such as total population size, population in broad age groups, mid-interval population size, and the number of person-years lived. We also obtain indicators of population structure, like dependency ratios, median age, the proportion of women of childbearing age, and the sex ratio. Additionally, the method provides insights into population distribution, such as the proportion of urban versus rural, crude birth rate, crude death rate, rate of natural increase, crude net migration rate, and overall population growth rate.

3.3 Steps of the Cohort Component Method

The cohort component method consists of a number of steps, which are described below:

Step 1- Collecting Information: The cohort component method requires information from both the most recent and the prior census. Information on the number of death rate is also required. Ideally the total death is calculated from the information on death rate of the particular place or from the documented death certificates. But the local level data is unavailable, so that the divisional death rate has been used for the calculation. These rates are used to project the total number of deaths that occur during the particular year. A life table or calculated survival population are also needed to calculate the mortality rates in the projected years. For this the existing population has been calculated by subtracting death from the present population then multiply it to the survival rate.

Existing Population = $\text{Population}_{t+n} - \text{Death}$

Survived Population = Existing Population X Survival rate

For the calculation of the Survived Population of Meherpur, the assumed survival rate is 1.

Step 2- Calculation of Birth: Information on the number of birth rate is also required. Ideally the total birth is calculated from the information on birth rate of the particular place. But the local level data is unavailable, so that the divisional birth rate has been used for the calculation. These rates are used to project the number of births that occur during the projection period.

Step 3- Calculation of Net Migrants: For the calculation of net migrants the following calculation has been used

Net Migrants = $(\text{Population}_{t+n} - \text{Population}_t) - (\text{Births} - \text{Deaths})$

Step 4- Calculation of Projected Population: By adding the above calculations the projected population is calculated for each particular year for an area.

Projected Population = Survived Population + Birth + Net Migrants

3.4 Population Projection

Table 3-1: Survived Population of the Upazilas

Gangni						Meherpur Sadar				Mujibnagar			
Age	Death Rate	Population 2022	Death *	Existing Population	**Survived Population	Population 2022	Death *	Existing Population	**Survived Population	Population 2022	Death *	Existing Population	**Survived Population
00-04	1.12	24041	27	24014	24014	20629	23	20606	20606	7879	9	7870	7870
05-09	0.58	23686	14	23673	23673	20325	12	20313	20313	7762	5	7758	7758
10-14	0.6	28462	17	28445	28445	24423	15	24408	24408	9327	6	9322	9322
15-19	0.94	30043	28	30015	30015	25780	24	25755	25755	9846	9	9836	9836
20-24	0.92	25106	23	25083	25083	21543	20	21523	21523	8228	8	8220	8220
25-29	0.77	23848	18	23829	23829	20463	16	20447	20447	7815	6	7809	7809
30-34	1.1	23041	25	23016	23016	19771	22	19749	19749	7551	8	7542	7542
35-39	1.29	27430	35	27394	27394	23537	30	23506	23506	8989	12	8977	8977
40-44	2.8	24654	69	24585	24585	21155	59	21096	21096	8079	23	8057	8057
45-49	4.54	20717	94	20623	20623	17777	81	17696	17696	6789	31	6758	6758
50-54	7.47	20040	150	19890	19890	17196	128	17067	17067	6567	49	6518	6518
55-59	13.83	14973	207	14766	14766	12848	178	12671	12671	4907	68	4839	4839
60-64	15.89	13908	221	13687	13687	11935	190	11745	11745	4558	72	4485	4485
65-69	24.65	9423	232	9191	9191	8086	199	7886	7886	3088	76	3012	3012
70-74	34.83	6519	227	6292	6292	5593	195	5399	5399	2136	74	2062	2062
75-79	61.31	2807	172	2635	2635	2409	148	2261	2261	920	56	864	864
80-84	79.47	2227	177	2050	2050	1911	152	1759	1759	730	58	672	672
85-89	117.39	807	95	712	712	692	81	611	611	264	31	233	233
90+	117.4	968	114	854	854	831	98	733	733	317	37	280	280
		322701	1946	320755	320755	276903	1670	275233	275233	105752	638	105114	105114

*Death= population X Death rate of Khulna Division

**Survival Rate=1

Note:

Total Population 2022: 705330

Total Population 2011: 655392

Table 3-2: Projected Population in Cohort Method

Upazila	Year					
	2024	2026	2031	2036	2041	2046
Gangni	345940	371125	396311	421496	446681	471866
Meherpur Sadar	293933	315988	338043	360099	382154	404209
Mujibnagar	112409	119703	126997	134291	141586	148880
Projected Population	752282	806816	861351	915886	970420	1024955
	Total		Gangni	Meherpur Sadar	Mujibnagar	
Number of Birth	13119		6002	5150	1967	
Number of Death	4572		2091	1794	685	
Net Migrants	41391		19183	16905	5327	

The population projection for the Meherpur District from 2024 to 2046 indicates consistent growth across all three upazilas—Gangni, Meherpur Sadar, and Mujibnagar—with the total population expected to rise from 752,282 in 2024 to 1,024,955 in 2046. Gangni remains the most populous upazila, growing from 345,940 in 2024 to 471,866 in 2046, followed by Meherpur Sadar and Mujibnagar. The birth rate is highest in Gangni (13,119 births), reflecting a higher fertility trend compared to Meherpur Sadar (6,002 births) and Mujibnagar (1,967 births). However, Gangni also experiences the highest number of deaths (4,572), followed by Meherpur Sadar (2,091) and Mujibnagar (685). The net migration data suggests that Gangni is the primary destination for migrants, with a net inflow of 41,391 people, indicating better employment or living conditions. Similarly, Meherpur Sadar and Mujibnagar also experience positive net migration of 19,183 and 5,327, respectively, suggesting overall regional attractiveness for settlement and economic activities.

Table 3-3: Population Projection of Meherpur Paurashava in Cohort Method Based on Population 2011

	Population 2011	Population 2001	Survived Population	Number of Birth	Number of Death	Net Migrants
Ward 1	6236	4873	6193	116	43	1289
Ward 2	4136	3594	4108	77	28	493
Ward 3	3350	3443	3327	62	23	-133
Ward 4	6156	4324	6114	115	42	1760
Ward 5	3860	3037	3834	72	26	778
Ward 6	3511	3140	3487	65	24	330
Ward 7	6140	4890	6098	114	42	1178
Ward 8	4114	3897	4086	77	28	169
Ward 9	5640	3426	5602	105	39	2148
Meherpur Pourashava Total	43144	34624	42849	802	295	8012

Table 3-4: Projected Population

Ward	Year					
	2024	2026	2031	2036	2041	2046
Ward 1	7599	9004	10409	11815	13220	14626
Ward 2	4678	5249	5819	6390	6960	7530
Ward 3	3256	3186	3115	3045	2975	2904

Ward	Year					
	2024	2026	2031	2036	2041	2046
Ward 4	7988	9863	11737	13611	15485	17360
Ward 5	4683	5533	6382	7232	8081	8931
Ward 6	3883	4278	4674	5069	5465	5860
Ward 7	7390	8682	8724	8766	8808	8850
Ward 8	4331	4576	4618	4660	4702	4744
Ward 9	7855	10107	10149	10191	10233	10275
Meherpur Pourashava Total	51663	60478	65629	70780	75930	81081

The population projection for Meherpur Pourashava from 2024 to 2046 shows significant growth, with the total population increasing from 51,663 in 2024 to 81,081 in 2046. Wards 1 and 4 exhibit the highest growth, with Ward 4 rising from 7,988 to 17,360, indicating rapid urbanization. Ward 1 also experiences substantial growth, reaching 14,626 by 2046. Wards 2, 5, and 6 show moderate but steady increases, while Wards 7, 8, and 9 have more stable populations. Notably, Ward 3 is the only ward with a declining trend, dropping from 3,256 in 2024 to 2,904 in 2046, indicating possible migration or demographic shifts. These trends highlight the uneven distribution of population growth, which may impact future urban planning and resource allocation.

Table 3-5: Population Projection of Gangni Paurashava in Cohort Method Based on Population 2011

Ward	Population 2011	Population 2001	Survived Population	Number of Birth	Number of Death	Net Migrants
Ward 1	2769	2029	2753	54	16	702
Ward 2	3102	2385	3084	60	18	675
Ward 3	3603	2622	3581	70	21	932
Ward 4	3096	520	3078	60	18	728
Ward 5	2618	4133	2603	50	15	257
Ward 6	2301	1919	2288	45	13	350
Ward 7	3158	3030	3138	61	18	85
Ward 8	2526	898	2512	49	15	268
Ward 9	2327	2121	2314	45	14	175
Gangni Paurashava Total	25500	34624	25352	802	495	5496

Table 3-6: Projected Population

Ward	2016	2021	2026	2031	2036	2041	2046
Ward No = 01	3509	4265	5021	5777	6533	7289	8045
Ward No = 02	3819	4554	5289	6024	6759	7494	8229
Ward No = 03	4583	5585	6587	7589	8591	9593	10595
Ward No = 04	3866	4654	5442	6230	7018	7806	8594
Ward No = 05	2910	3217	3524	3831	4138	4445	4752
Ward No = 06	2683	3078	3473	3868	4263	4658	5053
Ward No = 07	3284	3430	3576	3722	3868	4014	4160
Ward No = 08	2829	3146	3463	3780	4097	4414	4731

Ward No = 09	2534	2754	2974	3194	3414	3634	3854
Gangni Paurashava Total	31343	37334	43325	49316	55307	61298	67289

The population data of Gangni Pourashava from 2016 to 2046 indicates a steady growth across all wards. Wards **01, 02, 03, and 04** exhibit significant population increases, with Ward 03 experiencing the highest growth, reaching **10,595** by 2046. Wards **05 and 06** show moderate growth, with Ward 06 expanding from **2,683 in 2016** to **5,053 in 2046**, reflecting a more controlled population rise. Wards **07, 08, and 09** have the slowest growth rates, with Ward 09 remaining the least populated, reaching only **3,854** by 2046. The overall population of Gangni Pourashava is projected to more than double, increasing from **31,343 in 2016** to **67,289 in 2046**, highlighting substantial demographic expansion and potential future urbanization challenges.