

## AN ANALYSIS OF SPATIAL VARIATION OF GENDER DISPARITY IN HUGLI DISTRICT OF WEST BENGAL

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### Abstract:

*Freedom of thought, speech and action along with equal access to economic, social and cultural infrastructure to all citizens is essential for the social development of a nation. Yet, gender discrimination and inequality in the socio-cultural and economic fronts exists and acts as a deep rooted evil in the Indian society. In spite of several initiatives by the Government and different NGOs, the relative position of women in comparison to men in the Indian society remains dismal. **Gender disparity** implies denial of equality and human rights to women and the freedom to make decisions which affects their lives and results in widening gaps in the human capabilities and functioning associated between men and women. It also has a critical implication on the economic growth of a nation. It is assumed that the status of women and discrimination against them are inversely related and therefore measuring women's status is strongly related to measuring gender discrimination.*

*Hugli district in the state of West Bengal in India occupies an important position in the gender development ladder of the state. As per West Bengal Human Development Report, 2010, the district occupies the third position in terms of gender development index, although, in overall human development ladder it ranks sixth. It indicates that along with economic development women in the district are marching forward almost equally with men in overall well-being, especially when compared to most of the other districts of the state. However, it does not mean gender disparity is non-existent in the district. In fact, the degree of inequality is more visible at the sub-district block level. The issue of gender disparity is receiving increasing academic and policy attention in the recent years and the present study attempts to investigate and highlight the **spatial variation of gender disparity** in Hugli district.*

**Key Words:** Gender, Disparity, Inequality, Development

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## Introduction:

The word ‘**gender**’ relates to the ways in which society distinguishes between men and women and assigns them their social roles. The distinction between the terms ‘sex’ and ‘gender’ was introduced to deal with the general tendency to attribute women’s subordination to their anatomy. Gender disparity deserves a serious study among media, academia researchers and policy makers since its existence hampers the overall well being of the mass by blocking women from participation in social, political and economic activities. Many developing countries including India display gender inequality in education, employment and health.

Theoretically it is assumed that development is gender-neutral and both men and women could benefit equally from development and that the benefits of developmental interventions spread evenly across society. However, this is just a myth – the historical legacy of gender inequality in all societies across the world implies that there is no “level playing field”.

Awareness related to gender issues gained momentum as a result of post-modernism viewpoint and is strongly influenced by the feminism concept. However, it is virtually impossible to establish gender equality throughout the world, especially in post-colonised India. Gender discrimination and inequality in the socio-cultural and economic fronts exists and acts as a deep rooted evil in the Indian society. Women play a pivotal role in the overall progress of a country as they constitute half the human resources of a nation and the economic wealth of a country is seriously depleted if about half of the nation’s human resource is neglected. Recognising the need for involving women in various development activities, the Government of India has initiated several affirmative measures by way of programmes and schemes to bring them into the mainstream of development. The Constitution of India Guarantees to women all the rights that are enlisted below:

**Article 14** *Equality before the Law*

**Article 15(1)** *No discrimination by the state on grounds of only religion, race, caste, sex, place of birth*

**Article 15(3)** *Special provisions to be made by the state in favour of women and children*

**Article 16**

*Equal opportunity for all citizens in matter relating to employment or appointment to any office under the state*

**Article 39(a)**

*State policy to be directed to securing for men and women equally, the rights to an adequate means of livelihood*

**Article 39(d)**

*Equal pay for equal work for both men and women*

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**Table 1: Study Area at a Glance**

| <i>District</i>            | Hugli                       | <i>Sex Ratio</i>             | 961 females/ 1000 males |
|----------------------------|-----------------------------|------------------------------|-------------------------|
| <i>Latitudinal Extent</i>  | 23°01'20"N –<br>22°39'32"N  | <i>Literacy (in %)</i>       | 71.46                   |
| <i>Longitudinal Extent</i> | 88°30'15" E –<br>87°39'32"E | <i>Density of Population</i> | 1,753 people per sq. km |
| <i>Total Population</i>    | 5,519,145                   | <i>Sub Divisions</i>         | 4                       |
| <i>Male Population</i>     | 2,589,625                   | <i>Blocks</i>                | 18                      |
| <i>Female Population</i>   | 2,452,351                   | <i>Gram Panchayats</i>       | 210                     |
|                            |                             | <i>Villages</i>              | 2585                    |

*Source: Provisional Census of West Bengal, 2011*

### Objectives of Study:

The major objectives of study are as follows:

- To find out the spatial variation in sex ratio in different blocks of the Hugli district
- To measure the disparity in work participation between male and female population
- To measure the disparity in literacy between male and female population
- To measure the status of maternal health among the female population of the district
- To assess the levels of gender inequality and related status of women in the district

### Data Sources:

For the purpose of the study, data were collected mainly from different secondary sources like District Statistical Handbooks, Primary Census Abstracts, Economic Surveys and related websites. The author also visited offices of the Survey of India, NATMO, Economic and Statistical Bureau, Government of West Bengal, District Hospitals and Block Development Offices, Municipalities, Gram Panchayats and local NGOs to collect the relevant information for the study.

### Methodology:

The collected data were classified, tabulated and analysed for the purpose of the study. **The techniques of analysis** include:

- a. **Cartographic Techniques:** this includes diagrams like bar graphs, pie graphs, and maps showing spatial variation with choropleth technique.
- b. **Statistical Techniques:** These include Standard Score Analysis, Disparity Index Analysis and Combinational Analysis.

### Analysis of Gender Disparity:

Nobel laureate Prof. Amartya Sen, in his paper "*The Many Faces of Gender Inequality*" recognises seven types of gender disparity or inequality viz. Mortality Inequality, Natality Inequality, Basic- Facility Inequality, Special Opportunity Inequality, Professional Inequality, Ownership Inequality and Household Inequality. However, for the purpose of current discussion

and availability of data, four aspects of disparity have been taken into consideration, that hampers the overall development of the society.

### Sex Ratio and Missing Women:

The **sex ratio**, defined as the number of females per thousand males, is a very important indicator of health, nutrition and survival status of women. A lower value of sex ratio indicates higher incidence of gender disparity which may be caused by female foeticide, lack of proper maternal care, malnutrition etc.

A simple measure of gender disparity is reflected in uneven sex ratio. Perfect gender equality implies 50:50 sex ratios, in other words, 1000 females per 1000 males. The divergence of the number of females per 1000 males is a measure of gender disparity. Again, the shortfall of the number of adult females per 1000 males can be considered as gender parity missing women and is an important measure of gender disparity.

Following table (**Table 2**) contains the current status of sex ratio and gender parity missing women of different blocks of Hugli District:

**Table 2: Sex Ratio and Gender Parity Missing Women, Hugli District, 2011**

| Block           | Sex Ratio | Gender Parity Missing Women | Block              | Sex Ratio | Gender Parity Missing Women |
|-----------------|-----------|-----------------------------|--------------------|-----------|-----------------------------|
| Goghat I        | 950       | 1532                        | Polba-Dadpur       | 972       | 1501                        |
| Goghat II       | 952       | 1859                        | Haripal            | 981       | 583                         |
| Arambag         | 953       | 3269                        | Singur             | 970       | 998                         |
| Pursurah        | 951       | 1921                        | Serampur-Uttarpara | 959       | 2124                        |
| Tarakeshwar     | 957       | 1989                        | Chanditala I       | 997       | 1284                        |
| Dhaniakhali     | 994       | 1693                        | Chanditala II      | 984       | 2211                        |
| Pandua          | 985       | 1064                        | Jangipara          | 973       | 882                         |
| Balagarh        | 960       | 2850                        | Khanakul I         | 947       | 1297                        |
| Chinsurah-Mogra | 960       | 4199                        | Khanakul II        | 966       | 904                         |

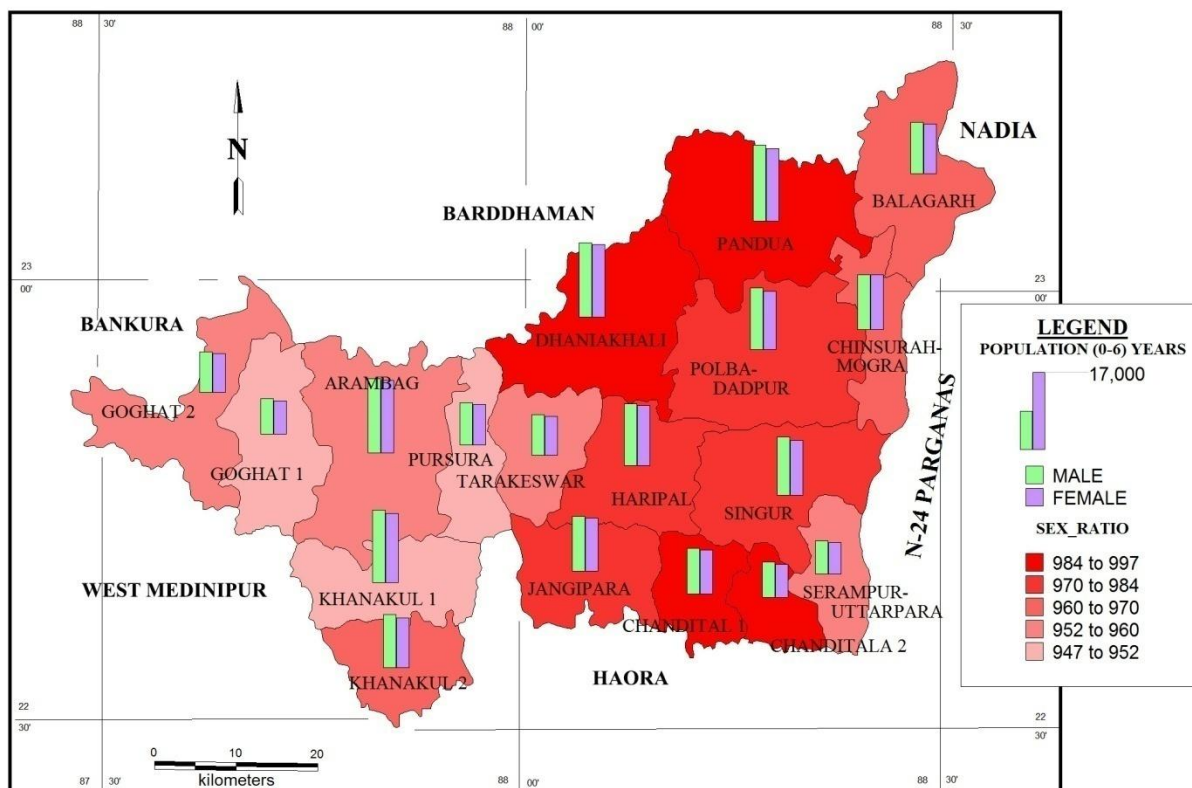
*Source:* Compiled by the Author

*Note:* Gender Parity Missing Women:  $(0.5 * \text{Total Population} - \text{Female Population})$



The population composition and the spatial variation of sex ratio in Hugli district in 2011 is also shown in a map in **Fig.1**.

**Fig. 1 Map showing Sex Composition and Spatial Variation of Sex Ratio, Hugli District, 2011**



From the given data in Table 2 and the map above, it can be seen that Chanditala I, Dhaniakhali, Pandua and Chanditala II have a higher value of sex ratio, indicating lower gender disparity, while the blocks Khanakul I, Goghat I, and Pursurah have lower values of sex ratio resulting in higher gender disparity. Another feature that catches attention is that the blocks having higher percentage of urban population have lower values of sex ratio and consequent higher gender disparity, indicating lesser number of females in urban areas. Broadly speaking, there are significant variations of sex ratio across the blocks in Hugli district.

### Disparity in Work Participation:

Work participation rate is defined as the proportion of working population to total population and is an important indicator of economic well being. Gender disparity in work participation reflects economic inequality between men and women.

Women in Hugli lag behind men in terms of economic independence. The disparity between male-female work participation in different blocks of the district is estimated by the calculation of Sopher's Disparity Index and put in a tabular form in **Table 3**

**Table 3: Disparity in Work Participation, Hugli District, 2011**

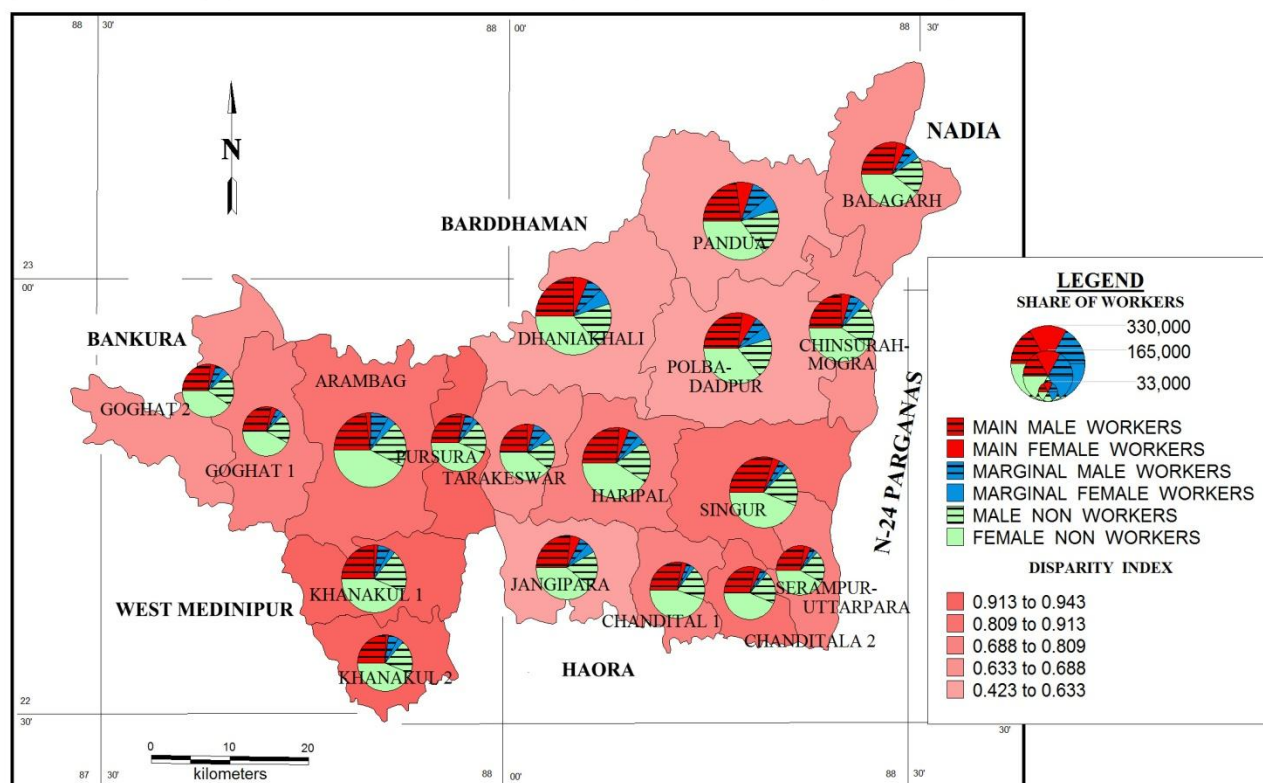
| Block           | % of Male Workers | % of Female Workers | Disparity Index Values | Block              | % of Male Workers | % of Female Workers | Disparity Index Values |
|-----------------|-------------------|---------------------|------------------------|--------------------|-------------------|---------------------|------------------------|
| Goghat I        | 62.1              | 13.6                | 0.79                   | Polba-Dadpur       | 64.4              | 26.6                | 0.49                   |
| Goghat II       | 60.9              | 16.6                | 0.68                   | Haripal            | 62.6              | 17.1                | 0.69                   |
| Arambag         | 60.7              | 12.8                | 0.81                   | Singur             | 64.1              | 10.9                | 0.91                   |
| Pursurah        | 63.5              | 10.2                | 0.94                   | Serampur-Uttarpara | 59.8              | 14.3                | 0.74                   |
| Tarakeshwar     | 64.2              | 19.2                | 0.65                   | Chanditala I       | 60.6              | 12.9                | 0.80                   |
| Dhaniakhali     | 63.2              | 26.6                | 0.48                   | Chanditala II      | 61.8              | 11.9                | 0.84                   |
| Pandua          | 61.6              | 28.8                | 0.42                   | Jangipara          | 62.9              | 20.3                | 0.61                   |
| Balagarh        | 63.1              | 18.9                | 0.64                   | Khanakul I         | 61.0              | 10.0                | 0.93                   |
| Chinsurah-Mogra | 57.8              | 17.2                | 0.63                   | Khanakul II        | 61.9              | 10.4                | 0.91                   |

*Source:* Compiled by the Author

*Note:* Sopher's Disparity Index =  $\log (x_2/x_1) + \log [(Q-x_1)/(Q-x_2)]$  where  $x_1$  and  $x_2$  represent the respective percentage of variables of group 1 and 2 and  $x_2 > \text{or} = x_1$

It can be noted that the highest disparity is in the block of Pursurah followed by Singur and Khanakul I. Comparatively lower disparities exist in the blocks of Dhaniakhali, Pandua and Polba-Dadpur, Pandua recording the lowest disparity. The findings of Table 3 are plotted in **Fig. 2**. The map in the figure also shows the sex composition and types of workers and non-workers in the district.

Fig. 2 Map showing Spatial Variation of Gender Disparity in Work Participation, Hugli District, 2011



Only 52.35 of the women work as main workers compared to 83% of that of men. The worst offender in this regard is Khanakul II where only 34.8% of the working women are main workers while 80.88 % of the working men are main workers. In many instances, women are forced to work for lower wages as temporary or marginal workers.

### Disparity in Literacy:

Access to education is essential for making informed choices and participation in political and economic processes. Gender differences in educational attainment are extremely important indicators of relative well-being of women. In Hugli District, the general literacy rates are quite satisfactory, the average literacy being 71.46%. But there exists marked differences in the literacy rates between men and women and this is explained in **Table 4**. Gaps between percentage of male and female literates in each district are measured and the standard scores of the gaps are calculated to understand the nature of concentration in literacy gaps and plotted in a map (**Fig. 3**).



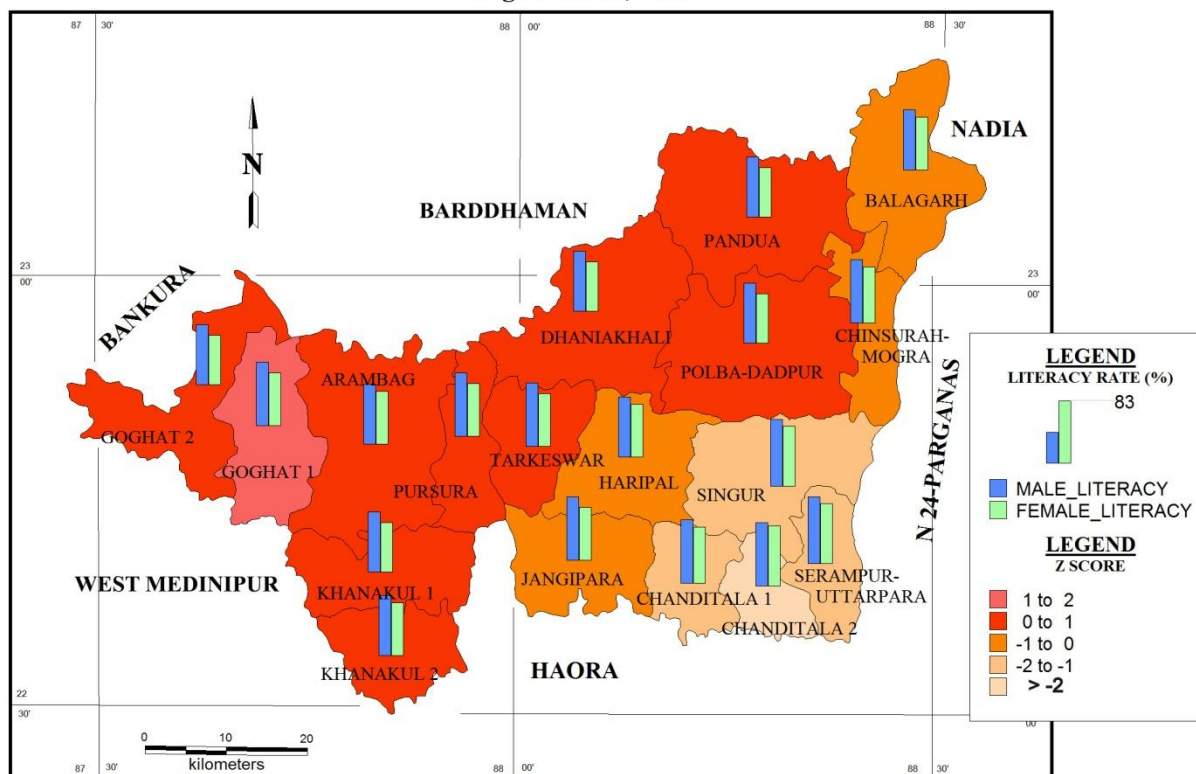
**Table 4: Blockwise Distribution of Gender Gaps in Literacy, Hugli District, 2011**

| Block               | Male- Female<br>Literacy Gap | Standard<br>Score | Block                  | Male- Female<br>Literacy Gap | Standard<br>Score |
|---------------------|------------------------------|-------------------|------------------------|------------------------------|-------------------|
| Goghat I            | 12.68                        | 1.08              | Polba-Dadpur           | 11.51                        | 0.47              |
| Goghat II           | 12.37                        | 0.92              | Haripal                | 10.58                        | -0.02             |
| Arambag             | 11.91                        | 0.68              | Singur                 | 8.57                         | -1.07             |
| Pursurah            | 11.96                        | 0.70              | Serampur-<br>Uttarpara | 7.31                         | -1.73             |
| Tarakeshwar         | 12.07                        | 0.76              | Chanditala I           | 7.65                         | -1.55             |
| Dhaniakhali         | 12.95                        | 0.80              | Chanditala II          | 6.25                         | -2.28             |
| Pandua              | 11.28                        | 0.35              | Jangipara              | 10.43                        | -0.09             |
| Balagarh            | 10.03                        | -0.31             | Khanakul I             | 12.18                        | 0.82              |
| Chinsurah-<br>Mogra | 9.83                         | -0.41             | Khanakul II            | 12.32                        | 0.89              |

*Source:* Compiled by the Author

*Note:*  $z \text{ score} = (x - \bar{x}) / s$ , Where  $\bar{x}$  and  $s$  are arithmetic mean and standard deviation

**Fig . 3 Map showing Composition of Literate Population and Concentration of Literacy Gaps Hugli District, 2011**



It can be seen from the map and the calculated standard score values that the literacy gap is low in Chanditala II, Chanditala I, Serampur-Uttarpara and Singur blocks where major urban centres are located and there are better educational infrastructure. These blocks also have a higher percentage of literates. On the other hand blocks namely Goghat I, Goghat II, and Dhaniakhali have quite high concentration of literacy gaps. These blocks also lag behind in literacy percentage and educational infrastructure.

### Gender and Health:

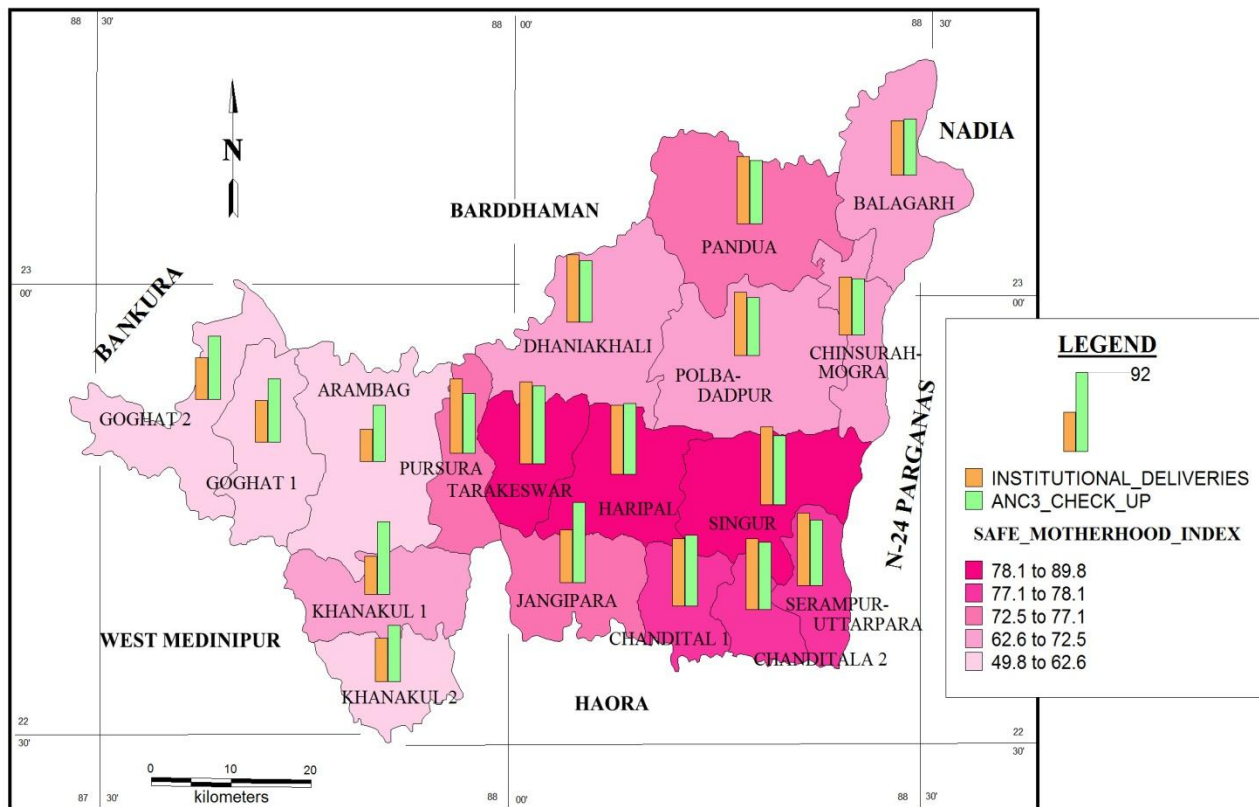
Nourishment and health care facilities available to women are of major concern in estimating the levels of gender disparity. However, constraints in availability of data narrows the area of analysis and thus, estimation of the situation is made based on maternal health care available to women in different blocks of the district. Based on the data available on percentage of women availing ante-natal checkups and institutional delivery of babies, safe motherhood indices are calculated, which is the average of the two variables and put in a tabular form in **Table 5**.

**Table 5: Safe Motherhood Index (SMI), Hugli District, 2009**

| Block           | % of ANC Checkup | % of Institutional Delivery | SMI   | Block              | % of ANC Check up | % of Institutional Delivery | SMI   |
|-----------------|------------------|-----------------------------|-------|--------------------|-------------------|-----------------------------|-------|
| Goghat I        | 72.07            | 47.1                        | 59.51 | Polba-Dadpur       | 65.54             | 70.9                        | 68.22 |
| Goghat II       | 72.2             | 47.5                        | 59.82 | Haripal            | 78.73             | 77.5                        | 78.14 |
| Arambag         | 62.76            | 36.9                        | 49.82 | Singur             | 77.27             | 88.9                        | 83.08 |
| Pursurah        | 67.83            | 84.7                        | 76.26 | Serampur-Uttarpara | 72.97             | 82.4                        | 77.69 |
| Tarakeshwar     | 88.07            | 91.4                        | 89.76 | Chanditala I       | 78.80             | 75.4                        | 77.10 |
| Dhaniakhali     | 70.23            | 74.8                        | 72.49 | ChanditalaII       | 75.10             | 79.10                       | 77.12 |
| Pandua          | 70.95            | 75.2                        | 73.06 | Jangipara          | 89.99             | 60.0                        | 75.02 |
| Balagarh        | 64.16            | 62.0                        | 63.10 | Khanakul I         | 81.57             | 43.7                        | 62.63 |
| Chinsurah-Mogra | 64.05            | 65.1                        | 64.58 | Khanakul II        | 64.3              | 48.7                        | 56.48 |

Source: Office of CMOH, Hugli

Fig. 4 Map showing Spatial Variation of Safe Motherhood Index, Hugli District, 2009



The findings about the status of safe motherhood in Table 5 have been plotted in a map (Fig. 4). It can be seen that the percentage of institutional deliveries is still quite low in many areas. It should also be borne in mind that there occurs many child deliveries at home which are unregistered. So the actual percentages of institutional deliveries are much lower than they seem. The worst situation are in Khanakul I and II whereas Tarakeshwar is in a very good position in this regard followed by Singur, Pursurah and Serampur-Uttarpara.

Another area of concern is the ante-natal care delivered to women. As proper estimates of pregnant women are not available, the available figures are estimated ones based on those who registered for ANC checkups. The best performance in this regard is by Jangipara followed by Tarakeshwar. Worst situation is in Arambag.

Analyzing the Safe Motherhood Index that is calculated from these two variables the status of maternal health varies significantly across the blocks of the district. Taraleshwar occupies the topmost position in terms of Safe Motherhood Index, followed by Singur, Haripal and Serampur-Uttarpara. On the other hand, the blocks viz. Arambag, Khanakul II, and Goghat I and II have been observed as the most vulnerable blocks as regards the health status of reproductive mothers.

### Spatial Trend of Gender Disparity:

The findings of the analyses made so far can be interpreted and summarised as follows:

- There exists significant spatial variation in gender disparity in Hugli district at the block level.
- Based on the four discussed criteria, an absolute pattern cannot be established because there are variations in the nature of concentration and occurrence of the selected parameters.
- The sex ratio is notably low in the blocks where there is a higher percentage of urban population. This may be due to the fact that urban areas provide job opportunities which suit the male population more and thus the percentage of male population is higher in those areas than the rural areas. A large number of male populations migrate to the urban areas in search of jobs that disturb the sex balance of the concerned centres.
- As regards the disparity in work participation rates, the blocks having higher percentage of urban population have lower disparity rates. The urban areas are more open to the concept of women opting for jobs outside their homes than the rural areas, where majority of the women work in agricultural sector or household industries, providing support labour to their families and their participation are mostly not recognised and registered.
- Literacy gaps are more prominent in blocks having higher percentage of rural population. The preference to educate the male child more than the female child coupled with poor educational infrastructure in the rural areas might be responsible for the situation.

- Maternal health conditions are significantly poor in rural area dominated blocks. The residents of the villages are conservative and unaware of the maternal health care facilities available in the health centres. Again, the health infrastructure in rural areas is insufficient and backdated, unable to provide the necessary support.

An attempt is made to summarise the findings in the following **Table 6** and categorise the blocks according to the levels of gender disparity and related status of women.

**Table 6: Summary of the Main Findings**

| Levels of Gender Disparity | Social Status of Women | Name of Blocks   |
|----------------------------|------------------------|--|
| High                       | Poor                   | Chanditala II, Chanditala I, Pandua, Dhaniakhali, Serampur-Uttarpara, Singur |
| Moderate                   | Satisfactory           | Jangipara, Haripal, Polba-Dadpur, Chinsurah-Mogra, Tarakeshwar               |
| Low                        | Good                   | Balagarh, Goghat I, Khanakul I, Pursurah, Arambag, Khanakul II, Goghat II    |

### Conclusion:

Gender inequality in Indian society is a persisting phenomenon and Hugli district is no exception. However, in an effort to reduce the gaps and improve the status of women in society, which is absolutely essential for overall development, concepts and strategies should be re-formulated and sincerely implemented for promoting women's dignity and rights. There is a need for newer thoughts and institutions for formulating and incorporating suitable norms and rules that support equal and justified relations between women and men. Pre-birth sex selection is a crime and should be stopped completely. The mindset of the entire population requires modification. Multi-faceted strategies with the goal of balancing sex ratio are the need of the hour and the issue cannot be dealt by a few but demands mass consciousness.



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