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Gender Inequality in Begusarai District: A Comprehensive Analysis

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ABSTRACT

This study investigates gender inequality in the Begusarai district of Bihar, India, through a detailed analysis of education, demography, and employment dimensions. Drawing from both secondary sources (Census 2011, NFHS-5, UDISE) and a primary field survey across five blocks and twenty villages, the research identifies entrenched gender disparities reinforced by socio-cultural norms, infrastructural deficits, and policy implementation gaps. Although female literacy in Begusarai improved from 18.1% in 1991 to 62.3% in 2020, block-level analysis reveals persistent educational inequality, especially in rural and under-resourced regions. Demographic indicators, including a declining sex ratio (from 1045 in 1901 to 880 in 2020) and skewed child sex ratios in several blocks, highlight pervasive son preference and neglect of girl children. Employment data show that only 7.42% of females are main workers compared to 30.63% of males, with women primarily engaged in low-wage, informal sectors. The primary survey corroborates these findings, indicating high son preference, limited access to sanitation, unsafe work environments, and widespread wage discrimination. Composite rank analyses across all 18 blocks further illustrate spatial disparities in gender inequality. The study concludes that while policy interventions have made modest progress, structural and cultural impediments continue to hinder gender parity. It calls for targeted, block-specific interventions in education, sanitation, and women's economic empowerment to close the gender gap in semi-rural India.

Keywords: Gender Inequality, Begusarai District, Female Literacy, Sex-Ratio Disparities

INTRODUCTION

Gender inequality remains one of the most persistent and multifaceted challenges in India's socio-economic development (Choudhury and Sarkar, 2012). Despite constitutional guarantees, legislative reforms, and an array of targeted policies, gender-based disparities continue to manifest across several dimensions—most notably in education, demographic structure, and employment. These disparities are not just symptoms of individual disadvantage but are deeply rooted in structural, institutional, and cultural systems that have evolved over generations (Chaudhuri, 2008)..

Education is universally recognized as both a driver and a mirror of societal development. It is often projected as a transformative force capable of dismantling inequality, promoting empowerment, and driving economic growth. However, in practice, this transformative potential remains unrealized for many women, particularly in rural India. Despite policy efforts and improved literacy indicators over the decades, large segments of the female population remain educationally marginalized (Gillborn and Mirza, 2000; Chen, 2004; Sen, 2006; World Bank, 2013). Patriarchal norms, socio-economic constraints, early marriages, and poor infrastructure collectively contribute to this scenario (Psaki et al., 2017, World Economic Forum, 2022).

While government programs such as Sarva Shiksha Abhiyan and Beti Bachao Beti Padhao have aimed to enhance female enrollment and retention, their impact is often diluted by entrenched cultural norms that devalue girls' education (Kainth, 2006; Kumar, 2023). Moreover,

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even educated women frequently find their opportunities curtailed due to social constraints, thus limiting the long-term benefits of educational access. Education in such contexts becomes symbolic rather than transformative, failing to translate into economic participation, social mobility, or decision-making power (Schultz, 2003; Kabeer, 2005; Otobe, 2014; Women, 2023).

Demography: A Statistical Reflection of Social Bias

Demographic indicators such as sex ratio, child sex ratio, under-five mortality, and age at marriage provide critical insights into gender inequality. In societies like India, where son preference and gender bias remain culturally embedded, these indicators not only reveal existing disparities but also predict future socio-economic trajectories. According to NFHS and Census data, the sex ratio in many parts of Bihar, including Begusarai, remains skewed, highlighting deep-rooted gender bias (Edwards et al., 2018).

The child sex ratio, in particular, reflects prenatal and postnatal discrimination. Lower ratios are indicative of sex-selective practices and differential child-rearing strategies, where girls often receive less nutrition and healthcare than boys. Such demographic imbalances are not just reflective of cultural norms but are also shaped by policy failures and the lack of community-level interventions to combat gender-based violence and neglect. Studies have shown that regions with skewed sex ratios often face "marriage squeeze" problems and increased violence against women—issues that are already emerging in many rural parts of North India (Ettarhand Kimani, 2012; Bora and Saikia, 2018).Early and child marriage further aggravates the demographic challenges. Girls married before the age of 18 are less likely to complete secondary education and are more likely to experience early pregnancies, increased fertility rates, and poor health outcomes (Jha et al., 2006; Goli et al., 2024). These practices, particularly prevalent in underdeveloped blocks of Begusarai, serve to entrench cycles of gender-based deprivation. Additionally, the rural-urban divide exacerbates these inequalities. Urban pockets within the district show slightly more balanced sex ratios and delayed age at marriage, while rural areas continue to exhibit alarming trends due to lack of awareness, healthcare, and enforcement of protective laws.

International organizations such as the United Nations, WHO, UNICEF, and UN Women have developed frameworks like the Sustainable Development Goals (SDGs) to combat such disparities. SDG 5, in particular, focuses on gender equality and the empowerment of all women and girls. However, as evident from regional case studies like Begusarai, the translation of global goals into local outcomes is inconsistent and slow, necessitating context-specific research and interventions(World Economic Forum, 2021; World Bank, 2021; UN Women, 2020).

Employment: The Unseen Glass Ceiling

Despite gains in education and policy reforms, gender inequality in employment persists as one of the most glaring dimensions of disparity in India. Nationally, the Female Labor Force Participation Rate (FLFPR) remains low—around 25%—and in states like Bihar, this figure drops even further. In Begusarai, female employment is largely concentrated in informal, agricultural, and unpaid family labor, with negligible representation in formal sectors or leadership roles.

Traditional gender roles and patriarchal norms restrict women's mobility and limit their access to job opportunities. The informal sector remains the primary domain for female employment, where women work without contracts, social security, or fair wages. Migration patterns further exacerbate the problem. In Bihar, large-scale male migration leads to a "feminization of responsibility" without a corresponding increase in female economic empowerment. Left behind, women are expected to manage households without gaining financial autonomy or formal employment opportunities.

Government schemes such as MGNREGA have attempted to address this by offering employment guarantees in rural areas, with a mandated quota for women. While the scheme has indeed increased women's participation in the labor force to some extent, issues like wage discrimination, delayed payments, and limited job diversity continue to diminish its impact. Additionally, Bihar's Jeevika program, which mobilizes women through self-help groups, has shown promise but faces scalability and inclusivity challenges.

The disparity is also reflected in occupational segregation—women are predominantly employed in low-paying, low-skill jobs, while high-skill, high-paying sectors such as STEM, administration, and finance remain male-dominated. Wage gaps are another persistent issue, with women earning significantly less than men for the same work, compounded by their

overrepresentation in part-time or seasonal labor. Cultural norms surrounding "honor" and "respectability" often prevent women from seeking employment far from their homes or in male-dominated workplaces.

International efforts led by the International Labour Organization (ILO), World Bank, and UN Women continue to emphasize the economic benefits of closing gender employment gaps. The Global Gender Gap Report by the World Economic Forum regularly highlights India's poor performance in the "economic participation and opportunity" domain. Scholars such as Klasen, Pieters, and Desai have shown that systemic interventions—ranging from workplace safety reforms to gender-responsive budgeting—are critical to reversing current trends(Ridgeway, 1997; Choudhary, and Singh, 2021; World Bank, 2021; WEF, 2022).

The district of Begusarai in Bihar provides a microcosmic view of how gender inequality manifests across education, demography, and employment in semi-rural India. With its blend of urban and rural characteristics, demographic diversity, and on-going development programs, Begusarai serves as a representative case for understanding block-level and village-level disparities. The region's varying access to infrastructure, inconsistent institutional support, and culturally entrenched gender norms make it a fertile ground for empirical research and policy experimentation.

In regions like Begusarai district in Bihar, gender inequalities become more pronounced due to the convergence of poverty, traditional norms, and inadequate infrastructure, making it a critical area for empirical and developmental inquiry. The present work aims to explore gender inequality in these three critical sectors using both secondary data (Census, NFHS, UDISE) and primary data collected from four villages across five blocks in Begusarai. The following sections present a detailed sector-wise analysis, followed by an empirical account that contextualizes these inequalities through field-level observations. Through this integrated approach, the paper seeks not only to document disparities but also to offer insights for policy-level interventions that can move the district—and similar regions—toward greater gender equality.

Study Area:

Begusarai has a diverse socio-economic and cultural landscape, deeply influenced by its historical, agricultural, and industrial development. The district is often referred to as the "Industrial Capital of Bihar", primarily due to its historical connection with industrial enterprises such as the Barauni Refinery, Hindustan Fertilizer Corporation, and thermal power plants (Fig. 1). However, over the years, many industries have either shut down or faced operational challenges, leading to unemployment and economic stagnation.

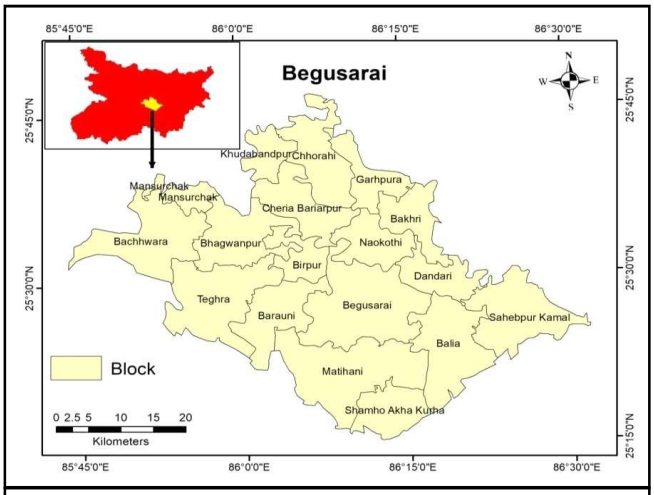

Fig. 1 : Location map of the study area

The primary sector (agriculture) remains the backbone of Begusarai's economy, employing over 60% of the population. The district has highly fertile alluvial soil, making it suitable for the cultivation of rice, wheat, maize, pulses, and oilseeds. The presence of the Ganga River provides ample irrigation facilities, but seasonal floods and water logging often pose challenges for farmers. Women in Begusarai play a significant role in agricultural labor, yet they rarely own land or receive formal wages, reflecting the gender disparities in land ownership and economic independence.

METHODOLOGY

Secondary data:

The present study utilizes both primary and secondary data to ensure a comprehensive analysis of disparities based on gender roles. The sources include Indian census, National Family Health Survey (NFHS) and Unified District Information System for Education (UDISE).

A primary survey was conducted across five villages in Begusarai district, selected for their geographical and socio-economic diversity, to assess gender disparities in education, employment, healthcare, and decision-making.

Using a structured, culturally appropriate questionnaire, data were collected from 500 households through stratified random sampling, ensuring representation across gender, caste, and socio-economic groups. Ethical standards, including informed oral consent, respondent anonymity, and gender-sensitive interviewing practices, were strictly observed. Female respondents were interviewed in secure, comfortable settings to encourage openness. The data were systematically analyzed to identify patterns and inform policy recommendations for reducing gender inequality in the region.

A composite rank analysis was conducted using 13 indicators—including school availability, teacher-student ratios, and gender-wise enrollment—across all 18 blocks to assess the relative educational development of each block. The Sopher's Gender Disparity Index was also calculated to quantify literacy inequality between males and females using the formula:

$$\text{Disparity Indec (DI)} = \log_{10}\left(\frac{F}{M}\right) + \log_{10}(200 - F)$$

where F and M represent female and male literacy rates, respectively. This index was applied to all blocks to establish the extent of literacy-based gender inequality.

RESULTS AND DISCUSSION

Gender Inequality in Education Sector:

Analysis of census data from 1991 to 2011, along with NFHS 2020 figures, reflects a notable rise in female literacy from 18.1% in 1991 to 62.3% in 2020 (Fig. 2). However, despite narrowing, the literacy gap between males and females remains significant. In 2011, while male literacy stood at 71.6%, the female literacy was 55.2%, underscoring persistent educational disparity particularly in rural areas.

Block-level data reveal sharp spatial disparities. Blocks such as Shamho Akha Kurha (45%) and Garhpura (45.5%) exhibit the lowest female literacy rates and widest gender gaps, while more urbanized or better-resourced blocks like Teghra (60%) and Barauni (59.4%) demonstrate narrower gaps. The urban-rural divide is evident in literacy patterns: blocks with larger urban populations tend to perform better in terms of gender parity (Fig. 3). Infrastructure disparities further compound the issue. Blocks like Bhagwanpur and Begusarai have the highest number of primary (Bhagwanpur – 79 and Begusarai - 41) and middle schools (Bhagwanpur – 58 and Begusarai - 34), while others—especially Shamho AkhaKurha (Primary – 4 and secondary - 4) and Dandari (Primary - 14 and secondary - 10)—suffer from acute shortages, limiting girls' early educational access(Fig. 4).

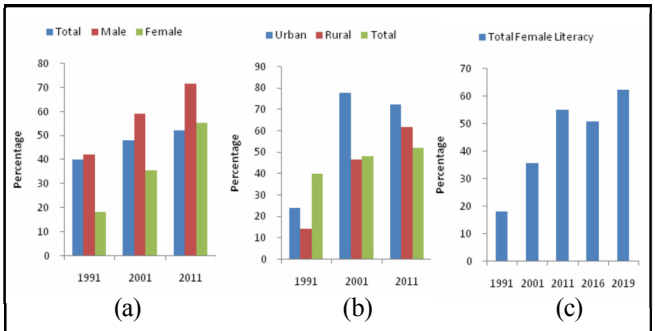

Fig. 2 : Total (a) male and female literacy, (b) urban and rural literacy rate, and (c) rise in female literacy from 1991 to 2019. (Source : Census 2011 and NFHS 2020)

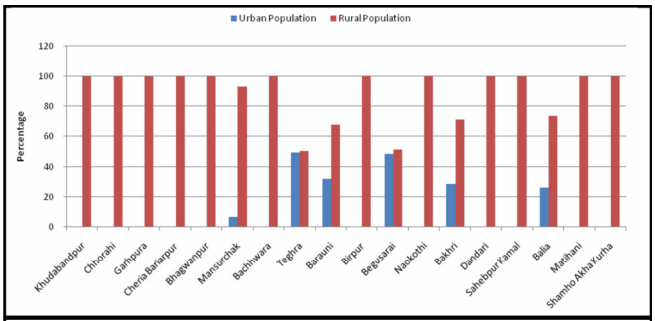

Fig. 3 : Distribution of urban rural population in the blocks of Begusarai district. (Source: Census 2011)

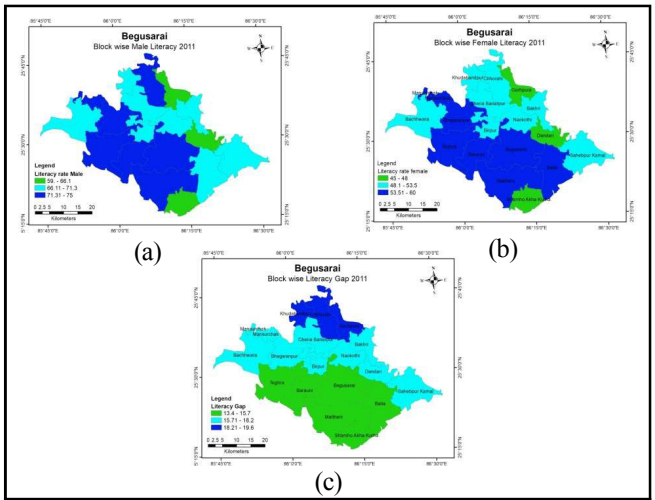

Fig. 4 : Male literacy, (b) female literacy and (c) literacy across the block of Begusarai (Source: Census 2011)

The overall enrollment figures between boys and girls are relatively little contrasting, disparities emerge in retention and progression, particularly in blocks lacking senior secondary institutions. Blocks such as Begusarai (54,596 boys and 50,788 girls), Barauni (32,057 boys and 32,190 girls), and Teghra (25,506 boys and 25,492 girls) report the highest enrollments. However, blocks like Shamho Akha Kurha show lower overall enrollment numbers (3,767 boys and 3,338 girls), which may indicate under-enrollment or limited access to educational facilities in these blocks. The gender distribution of teachers also plays a role. Female teacher representation is lower inblockslike Shamho AkhaKurha (67 male and 44 female teachers) and Dandari (140 male and 150 female teachers), which may affect girls' school attendance and continuation, especially in conservative communities.

The composite ranking of educational development highlights these inequalities. While blocks like Barauni and Begusarai rank highest due to better infrastructure and balanced enrollment, low-ranking blocks like Shamho Akha Kurha, Dandari, and Khudabandpur require urgent attention. The Sopher's Gender Disparity Index further confirms widespread gender imbalance, with all blocks exhibiting high disparity values (ranging from 2.03 to 2.07) (Table 1).

Composite Rank Analysis:

The composite rank analysis of the 18 blocks of Begusarai district provides a comprehensive view of the development and socio-economic conditions across the district.

High-Performing Blocks:

The high-performing blocks are Barauni (36), Begusarai (49), Bhagwanpur (67), and Balia (78). These blocks have the best socio-economic indicators, suggesting they are relatively more developed. The presence of better infrastructure, educational institutions, and employment opportunities likely contribute to their superior rankings (Fig. 5).

Medium-Performing Blocks:

The blocks that fall under the medium category include Teghra (95), Sahebpur Kamal (93), Matihani (112), Garhpura (110), and Chhorahi (117). These blocks exhibit moderate levels of development, performing better than some but still falling short compared to the top-ranked blocks.

Table 1: Indicators of gender disparity in education sector in the blocks of Begusarai

Name_	Male literacy	Female literacy	Literacy gap	Primary school	Middle school	Secondary	Senior econdary school	Boys enrolment	Girls enrolment	Male teacher	Female teacher	Total teacher	Student-Teacher ratio_Boys	Student-Teacher ratio_Girls
Khudabandpur	71.3	52	19.3	17	15	2	1	7915	7169	188	180	368	21.51	19.48
Chhorahi	73	53.5	19.5	28	25	3	2	15600	15099	319	231	550	28.36	27.45
Garhpura	65.1	45.5	19.6	28	17	6	4	14075	13565	252	222	474	29.69	28.62
Cheria Bariarpur	69.8	52.5	17.3	25	20	6	1	17816	17034	318	347	665	26.79	25.62
Bhagwanpur	74.4	56.8	17.6	79	58	8	8	21855	20694	425	395	820	26.65	25.24
Mansurchak	75	57.7	17.3	20	18	2	2	10011	9658	236	195	431	23.23	22.41
Bachhwara	68.8	51	17.8	37	22	2	1	23547	22099	432	424	856	27.51	25.82
Teghra	73.7	60	13.7	22	16	2	1	25506	25492	478	446	924	27.60	27.59
Barauni	72.8	59.4	13.4	34	24	6	2	32057	32190	477	486	963	33.29	33.43
Birpur	67.7	49.5	18.2	19	14	4	0	10736	10715	191	149	340	31.58	31.51
Begusarai	73.8	59.8	14	41	34	12	1	54596	50788	851	1055	1906	28.64	26.65
Naokothi	68.7	50.6	18.1	21	13	2	2	11649	11074	223	183	406	28.69	27.28
Bakhri	67.2	50.6	16.6	27	9	1	0	15826	14832	226	172	398	39.76	37.27
Dandari	66.1	48	18.1	14	10	1	0	8670	8132	140	150	290	29.90	28.04
Sahebpur Kamal	70.4	53.2	17.2	27	21	4	0	22784	21983	422	332	754	30.22	29.16
Balia	71.1	55.8	15.3	33	24	9	1	21601	20689	379	303	682	31.67	30.34
Matihani	72.3	56.6	15.7	29	19	3	0	19952	18744	360	277	637	31.32	29.43
Shamho Akha Kurha	59.6	45	14.6	4	4	1	0	3767	3338	67	44	111	33.94	30.07

Source: UDISE, 2013

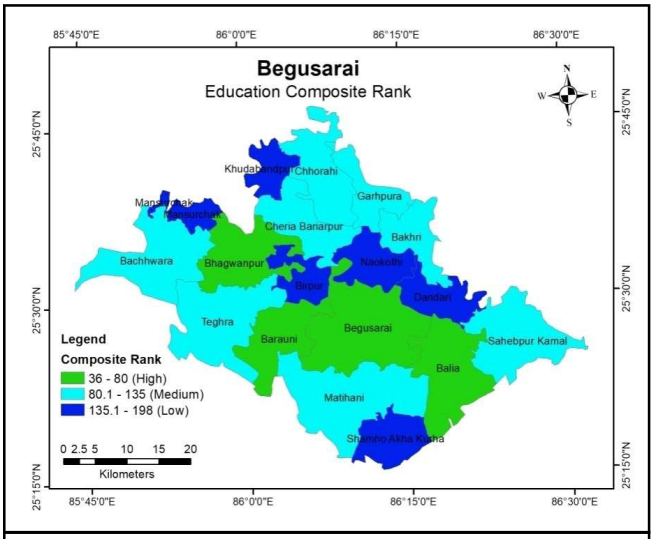

Fig. 5 : Map showing composite rank of each block in the blocks of Begusarai districts

Low-Performing Blocks:

The low-performing blocks are those with the highest composite ranks, such as Dandari (195), Shamho Akha Kurha (198), Khudabandpur (181), and Naokothi (155). These blocks face significant development challenges and require focused interventions to uplift their socio-economic status.

Gender Inequality in Demographic Scenario:

Sex Ratio:

Analyzing the historical trends in Bihar and Begusarai reveals significant shifts over the decades, influenced by socioeconomic and cultural factors. Begusarai's sex ratio trends generally follow Bihar's pattern, though with notable differences. Starting from 1,045 in 1901, Begusarai experienced a gradual decline, reaching 898 by 1991 (Fig. 5). Unlike Bihar, Begusarai did not show any unusual increase in the 1981 census, indicating a more stable but steadily declining trend in gender balance (Fig. 6). By 2001, the sex ratio was 912, closely aligning with Bihar's overall ratio. However, post-2011, Begusarai consistently recorded a lower sex ratio compared to Bihar, indicating greater gender disparity. In recent years, it further declined to around 880 by 2020.

Comparing Bihar and Begusarai rural sex ratios, Begusarai consistently records lower ratios, especially in recent decades. The gradual recovery in Bihar's rural sex ratio after 1981 is less pronounced in Begusarai, indicating that gender disparity might be more entrenched or influenced by local socio-cultural norms (Fig. 7).

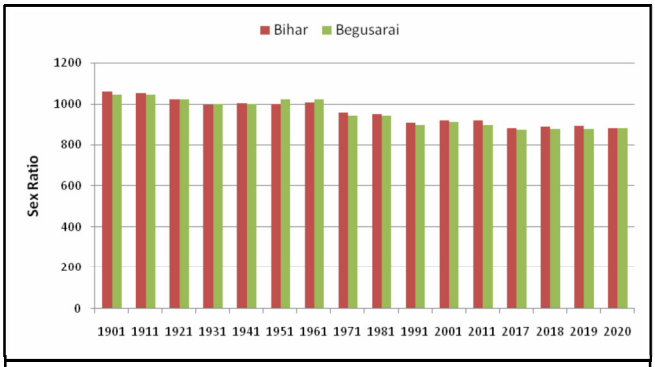

Fig. 6 : Sex ratio in Bihar and Begusarai (Source: Census, 2011 and Electoral Office, Bihar).

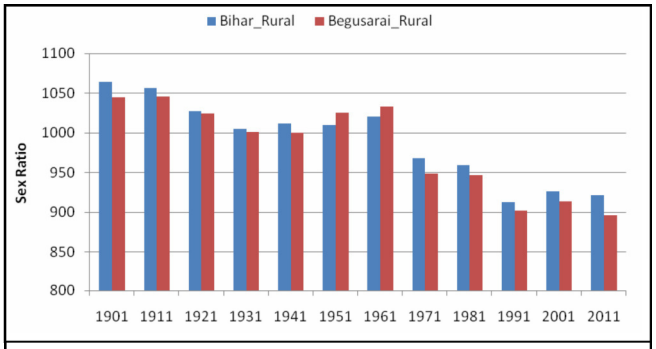

Fig. 7 : Rural sex ratio trend in Bihar state and Begusarai district. (source: Census, 2011)

Child Sex Ratio:

The national CSR declined steadily from 945 in 1991 to 927 in 2001 and further to 914 in 2011.The CSR in Bihar also showed a decline but was consistently higher than the national average, starting at 953 in 1991 and decreasing to 942 in 2001, then to 935 in 2011.In Begusarai, the CSR was relatively high at 961 in 1991, higher than both Bihar and India. However, it dropped to 946 in 2001 and then to 919 in 2011, indicating a rapid decline in gender balance among children (Fig. 8).

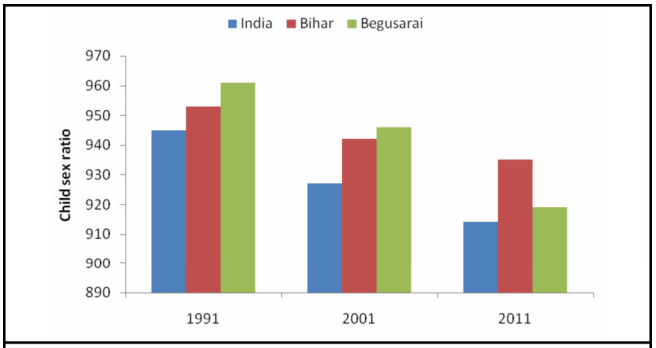

Fig. 8 : Child sex ratio in India, Bihar and Begusarai (Source: Census, 2011)

Block Level Analysis of Demographic Indicators:

Sex Ratio of Blocks of Begusarai:

The high sex ration blocks include Mansurchak, Naokothi, Chhorahi, and Khudabandpur, with figures of 931, 923, 920, and 919, respectively. These blocks exceed both the district's overall sex ratio (896) and the national sex ratio in rural areas. Blocks like CheriaBariarpur (913), Bakhri (909), and Dandari (906) show moderately high sex ratios. Blocks like Sahebpur Kamal (873), Balia (881), and Matihani (879) have significantly lower sex ratios than the district average (Fig. 9).

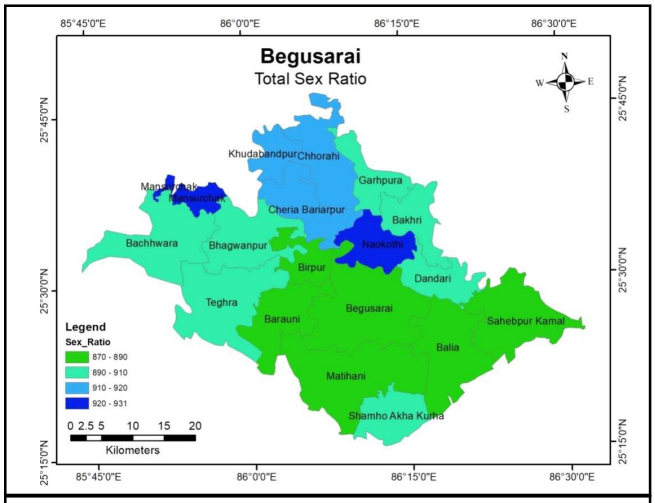

Fig. 9 : Total sex ratio for blocks of Begusarai district (Source: Census, 2011)

Child Sex Ratio of Blocks of Begusarai:

Relatively high child sex ratio was found in Blocks such as Khudabandpur (950), Naokothi (940), Bakhri (939), Dandari (941), and Chhorahi (943) (Fig. 10).

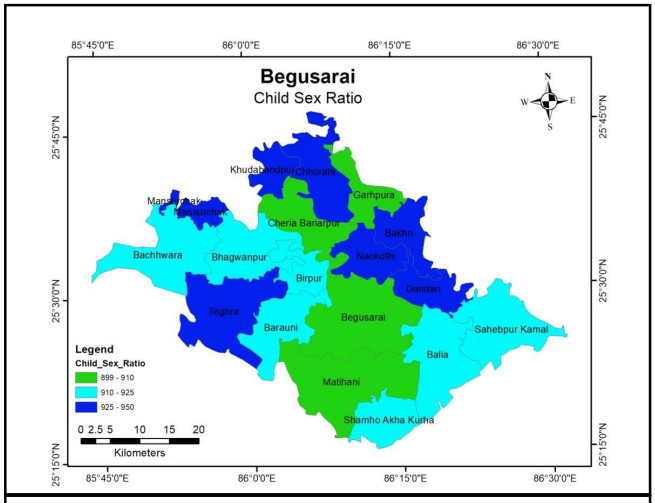

Fig. 10 : Child Sex Ratio of blocks of Begusarai district. (source: Census, 2011)

Several blocks, including Bhagwanpur (925), Shamho Akha Kurha (924), Bachhwara (921), Balia (920), and Birpur (918), have child sex ratios that are close to the district average. Blocks with child sex ratios below the district average include Cheria Bariarpur (899), Garhpura (901), and Begusarai (901).

Among the 18 blocks, only a few have recorded urban populations with available sex ratios. These blocks include Mansurchak (928), Teghra (893), Barauni (890), Begusarai (887), Bakhri (897), and Balia (898) (Fig. 11).A significant number of blocks, including Khudabandpur, Chhorahi, Garhpura, CheriaBariarpur, Bhagwanpur, Bachhwara, Birpur, Naokothi, Dandari, Sahebpur Kamal, Matihani, and Shamho Akha Kurha, have zero recorded urban populations.

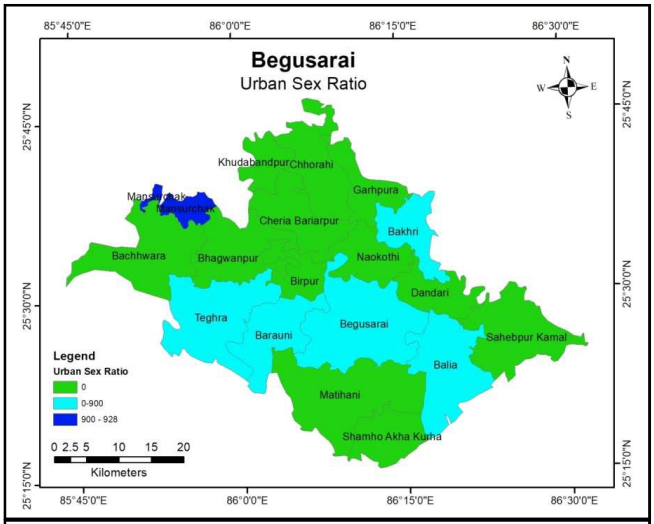

Fig. 11 : Urban Sex Ratio of blocks of Begusarai district (Source: Census, 2011)

The rural sex ratio among the blocks ranges from a high of 931 in Mansurchak to a low of 873 in Sahebpur Kamal (Fig. 12). Mansurchak, with a ratio of 931.Sahebpur Kamal's sex ratio of 873, significantly below the district average, suggests possible gender disparities, which may stem from social biases, economic factors, or differential access to healthcare.

Begusarai's population growth trends reveal a district in transition, with certain blocks advancing toward gender equity while others lag behind (Fig. 13). High-growth blocks like Chhorahi and Garhpura would benefit from targeted policies aimed at female empowerment, whereas low-growth areas like Shamho AkhaKurha serve as examples of how socio-economic development and gender equality can lead to more sustainable demographic

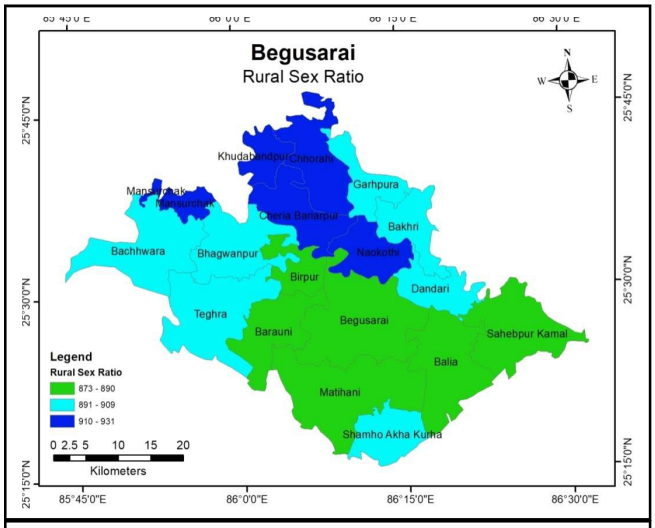

Fig. 12 : Rural Sex Ratio of blocks of Begusarai district (Source: Census, 2011)

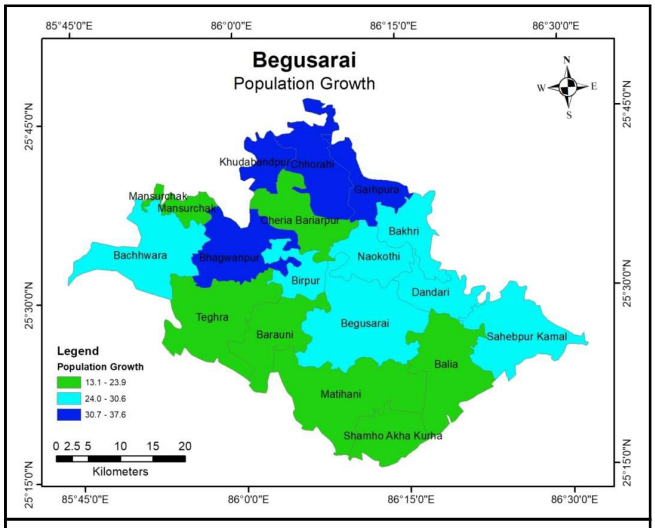

Fig. 13 : Population Growth of blocks of Begusarai district (Source: Census, 2011)

patterns.

Composite Rank Analysis for Demographic Indicators if Gender Inequality:

The composite rank data for Begusarai district provides a detailed snapshot of the gender inequality scenario across 18 blocks, revealing significant disparities (Table 2). Blocks such as Chhorahi, Mansurchak, and Naokothi perform relatively well, with ranks of 27, 27, and 34, respectively. These lower ranks suggest that these areas have managed to achieve better gender balance across multiple demographic indicators. On the other hand, blocks like Matihani, Sahebpur Kamal, and Begusarai, with ranks of 103, 99, and 86, respectively, show considerable gender inequality.

Gender Inequality in Employment Sector:

In Begusarai, only 30.63% of males and 7.42% of

Table 2 : Composite Rank for demographic indicators for the study area

Name	Rank							
	SR	CSR	SC SR	ST SR	SR Urban	SR Rural	Pop growth	Composite_Rank
Khudabandpur	4	1	5	17	7	4	3	41
Chhorahi	3	2	5	6	7	3	1	27
Garhpura	9	16	3	6	7	9	2	52
CheriaBariarpur	5	18	2	3	7	5	13	53
Bhagwanpur	12	8	10	16	7	12	4	69
Mansurchak	1	2	1	9	1	1	12	27
Bachhwara	10	10	8	14	7	10	10	69
Teghra	11	7	12	4	4	11	15	64
Barauni	13	13	14	5	5	13	17	80
Birpur	14	12	9	12	7	14	5	73
Begusarai	15	16	15	11	6	15	8	86
Naokothi	2	5	3	6	7	2	9	34
Bakhri	6	6	7	15	3	6	7	50
Dandari	7	4	10	2	7	7	6	43
Sahebpur Kamal	18	14	18	13	7	18	11	99
Balia	16	11	15	10	2	16	14	84
Matihani	17	15	13	18	7	17	16	103
ShamhoAkhaKurha	8	9	17	1	7	8	18	68

SR= sex ratio, CRS =child sex ratio, SCSR= schedule cast sex ratio, ST SR= schedule tribe sex ratio.

females are categorized as main workers, reflecting the limited access to full-time employment for women. Comparatively, Bihar state has higher male participation in main work (80.86%) but still a low percentage for females (19.14%)(Fig. 14). Marginal workers in Begusarai account for 15.33% of males and 9.75% of females, emphasizing that many women remain confined to irregular, part-time work. This is consistent with Bihar's broader trends, though specific state-level data for marginal workers is unavailable. In Begusarai, 19.58% of males and 11.22% of females are engaged as cultivators. For Bihar, the corresponding figures are higher at 86.61% and 13.38% for males and females, respectively.

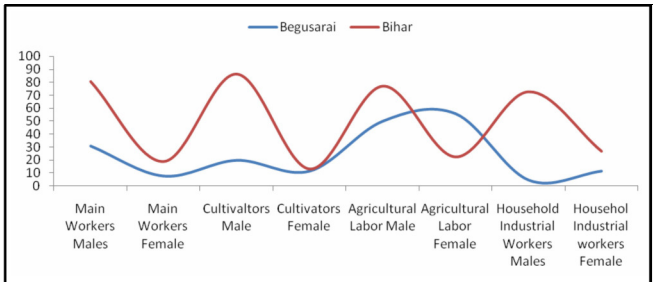

Fig. 14 : Contribution of genders in different economic activities in Begusarai and Bihar (Source: Census 2011)

Analysis of Blocks of Begusarai district:

The percentage of male main workers varies across the blocks, ranging from 22.55% in Dandari to a high of 41.08% in Shamho Akha Kurha (Fig. 15). On average, most blocks show male main worker participation rates between 28% and 34%, with only a few outliers. Blocks like Garhpura (33.96%), Birpur (33.59%), and Matihani (33.2%) show relatively higher male participation, while blocks such as Dandari (22.55%), Cheria Bariarpur (24.37%), and Sahebpur Kamal (28.76%) have lower percentages. Blocks like Garhpura and Khudabandpur show relatively high percentages for both male and female main workers. Even in blocks with relatively higher female participation, such as Garhpura, the male percentage (33.96%) still significantly outpaces the female percentage (11.84%).

The percentage of male non-workers across the blocks varies from 51.88% in Bhagwanpur to 56.68% in Barauni. Blocks such as Sahebpur Kamal (56.58%), Dandari (55.81%), and Chhorahi (54.72%) report higher non-worker rates among men, indicating significant male

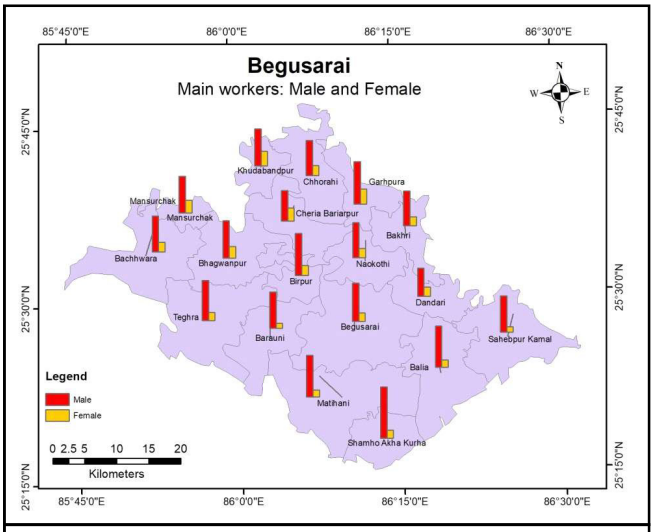

Fig. 15 : The contribution of males and female main workers across blocks (Source: Census 2011)

disengagement from economic activities in these regions (Fig. 16). On the other hand, blocks like Garhpura (52.31%), Bhagwanpur (51.88%), and Khudabandpur (52.66%) show relatively lower percentages of male non-workers. The high percentage of female non-workers reflects the prevailing socio-cultural norms and limited access to employment opportunities for women.

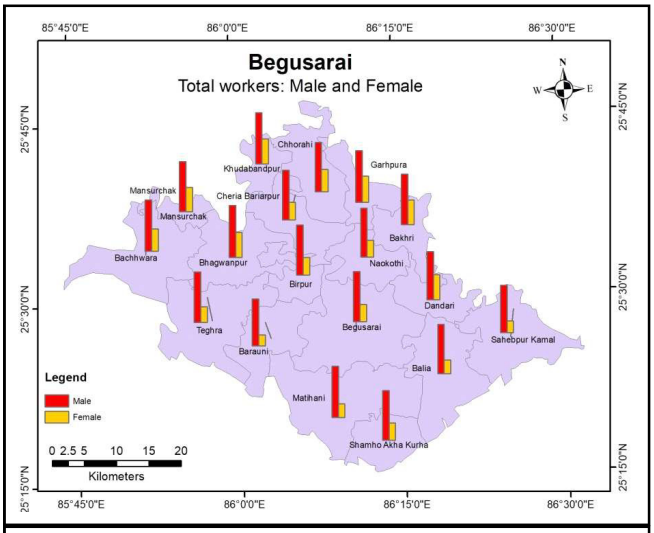

Fig. 16 : The contribution of males and female in total working population across blocks (Source: Census 2011)

The percentage of male total workers ranges from 43.32% in Barauni to 48.12% in Bhagwanpur. The percentage of female total workers is significantly lower than that of males, ranging from 10.18% in Barauni to

24.41% in Garhpura. This stark contrast highlights the limited economic participation of women in the district. Garhpura (24.41%), Bhagwanpur (23.09%), and Dandari (23.06%) report the highest female worker participation. These blocks may have better opportunities for women in agriculture, small-scale industries, or self-employment. Barauni (10.18%), Sahebpur Kamal (10.56%), and Matihani (12.62%) record the lowest percentages of female total workers (Fig. 17).

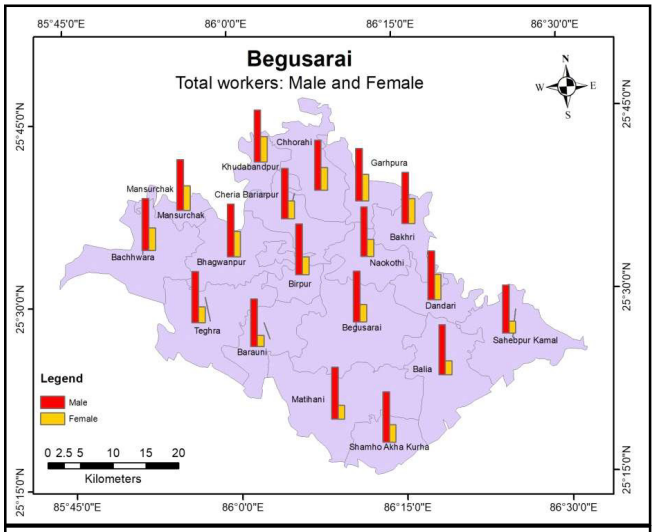

Fig. 17 : The contribution of males and female in total working population across blocks (Source: Census 2011)

The percentage of female agricultural laborers ranges from 33.23% in Mansurchak to 84.7% in Shamho Akha Kurha. Shamho Akha Kurha (84.7%), Garhpura (68.11%), and Naokothi (65.26%) have the highest percentages of female agricultural laborers (Fig. 18). These figures underscore women's critical role in agricultural activities in these areas, often driven by economic necessity and a lack of alternative employment options. Mansurchak (33.23%) and Teghra (41.13%) report the lowest percentages of female agricultural laborers.

Primary Survey findings:

The primary survey conducted across five selected blocks of Begusarai district—Bachhwara, Begusarai, Khudabandpur, Garhpura, and Dandari—revealed multifaceted gender inequalities rooted in socio-cultural norms, infrastructural deficiencies, and economic disparities. A total of 500 respondents (100 from each block, with both male and female participants) were

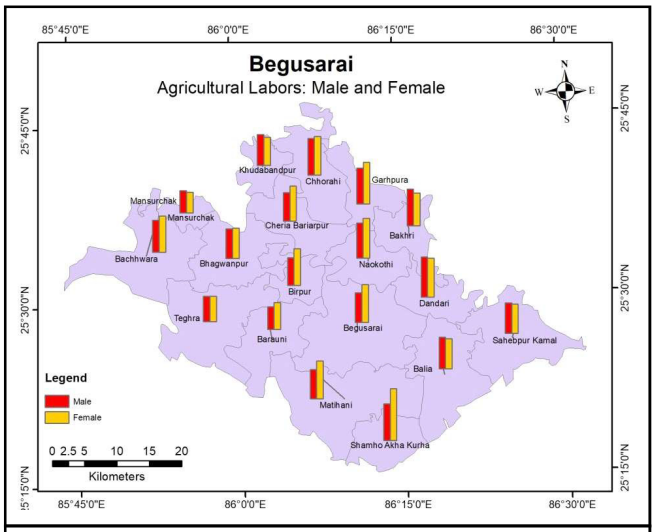

Fig. 18 : The contribution of males and female in agricultural labor across blocks (Source: Census 2011)

interviewed from 20 villages using purposive sampling, covering gender dimensions in education, demography, and employment (Table 3).

In the education sector, significant gaps persist between male and female literacy rates. Female literacy was particularly low in rural and marginalized areas such as Garhpura and Dandari. Respondents indicated that girls were often withdrawn from schools post-primary level due to household responsibilities, poor school infrastructure, and early marriage. The lack of separate toilets in schools for girls was mentioned as a critical barrier, especially in Dandari and Khudabandpur.

Demographic findings further reflect entrenched gender bias. In Begusarai block, 81% of respondents admitted trying for a male child after the first pregnancy if the firstborn was a girl. Similarly, son preference remained overwhelmingly high in Khudabandpur (82%), Garhpura (77%), and Dandari (87%). The practice of open defecation was prevalent across all blocks, with over 50% of respondents in Dandari and Khudabandpur reporting no access to household toilets. Alarmingly, only 19% of respondents in Dandari and 18% in Garhpura confirmed the availability of separate toilets for women in the community. Moreover, in Garhpura and Dandari, more than 60% of women expressed feeling unsafe while using toilets, indicating serious gaps in sanitation and safety.

Employment data revealed gendered disparities in work participation, income levels, and workplace

Table 3 : General profile of the surveyed villages of selected blocks

Block name	Bachhwara				Begusarai				Khudabandpur			
Village	Godhna	Arwa	Chiranjipur	Bachhwara	Mohanpur	Rajaura	Sikandarpur	Rajadumri	Sagi	Daulatpur	Meghaul	Khodawandpur
No. of Household	1233	1219	1193	1127	1262	1022	1101	980	1049	1557	2066	2076
Total Population	6376	5711	5499	5320	6671	5443	5363	5291	5408	7365	9284	10231
Literacy Total	76.87	59.53	69.63	66.7	65.56	59.16	71.2	61.53	60.76	56.37	55.16	68.96
Child sex ratio total	880.3571	870.1923	844.7937	875.7637	861.3139	899.1935	911.5226	846.4351	919.6078	937.018	1005.031	995.4023

Table 3 contd…

Contd… Table 3

Block name	Garhpura				Dandari			
Village	Malipur	Karai	Kuriawan	Sujanpur	Rajopur	Tetri	Katahri	Mehpatol
No. of Household	1398	1154	1181	1022	1121	1559	1100	1230
Total Population	6329	5183	5230	5068	5760	7510	6173	6554
Literacy Total	58.11	62.23	50.95	45.62	62.61	70.95	51.17	61.79
Child sex ratio total	982.3435	960.739	879.9213	879.6296	945.1827	939.8907	930.8682	934.2466

conditions. In Begusarai block, 55% of respondents were female, yet 24 out of 55 reported having no job, and the majority worked in low-paying primary sectors. Across blocks, most women earned below Rs. 5000 per month, and wage disparities between men and women were consistently reported. For example, in Khudabandpur, 25 out of 53 female respondents earned under Rs. 5000, compared to only 12 of 47 males. Additionally, over 60% of women in Dandari and Garhpura reported the absence of toilet facilities at workplaces and unfriendly work environments, highlighting gender-insensitive employment conditions.

Conclusion:

The current study offers a comprehensive analysis of gender inequality in Begusarai district, Bihar, by examining disparities across education, demographic patterns, and employment, supported by both secondary data and empirical evidence from a primary field survey. While improvements have been observed in female literacy rates, access to basic education, and health indicators over the past three decades, the persistence of gender-based disparities—particularly at the block and village levels—underscores the limitations of policy reach and infrastructural equity. Educational inequality remains a central concern, with significant gaps in female literacy, limited access to secondary schools, and an uneven distribution of qualified female teachers. Demographic indicators such as skewed sex ratios, early marriage, and high under-five mortality rates for girls highlight deep-rooted socio-cultural biases. Similarly, in the employment domain, female labor force participation remains low, with women primarily engaged in informal and low-paying sectors, facing restricted mobility and limited decision-making power. The findings from the primary survey reveal a disconnect between policy frameworks and lived realities. Despite government interventions, patriarchal norms, economic dependency, and infrastructural deficits continue to hinder women's advancement. Blocks with better infrastructure and urban features show marginally lower gender gaps, indicating that investment in education, health, and economic opportunities can contribute to improved gender outcomes.

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