

Education and Health in Gorakhpur: Trends, Challenges, and Policy Implications for Human Development

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Abstract—This study presents a comprehensive overview of the intertwined domains of education and health in the district of Gorakhpur, located in eastern Uttar Pradesh, India. Drawing on available secondary data; such as enrolment and literacy statistics for education and health-service coverage, facility distribution and demographic indicators for health. This paper examines recent trends, identifies persistent gaps, and explores policy implications. On the education front, Gorakhpur has achieved a city literacy rate of around 83.9 per cent (male 88.7 per cent, female 78.7 per cent) according to the 2011 census, highlighting considerable progress yet showing gender disparities.¹ Enrollment in primary and upper-primary schools continues to increase, but infrastructure, teacher-student ratios, and gender parity remain key concerns.² In the health sector, the district exhibits both strengths and challenges: all 19 blocks have functional primary health centres or community health centres, showing structural reach of the health system. Yet, indicators such as under-five mortality and maternal service utilization have historically lagged behind state and national levels, pointing to gaps in access, quality and social equity.³ Using a mixed-method analytical lens, this paper considers the interaction between educational attainment and health outcomes and the mutually reinforcing nature of the relationship, as well as how deficits in one area affect the other. It also examines policy frameworks and district-level institutional capacity, to highlight possible points for where we can implement an integrated approach to human-development efforts. The findings explain that while Gorakhpur has made a worthy step in human development, targeted efforts are needed; particularly in rural and poor communities to ensure inclusive progress. The study gives recommendations for improving gender parity in education, strengthening early-childhood health and nutrition services, enhancing school-health linkages, and reinforcing governance mechanisms for sustained outcomes.

Keywords: Education, Health, Policy, Gorakhpur, Uttar Pradesh

I. INTRODUCTION

Human development is fundamentally underpinned by the twin pillars of education and health, which are deeply interlinked and mutually reinforcing.⁴ Improvements in educational outcomes tend to lead to better health behaviours, greater utilisation of health services, and enhanced capacity to participate in economic life; conversely, improved health facilitates learning, school-retention, and cognitive development. In the Indian context, the ambitious agenda of ensuring inclusive growth and achieving Sustainable Development Goals (SDGs) places special emphasis on strengthening both sectors simultaneously.⁵

The district of Gorakhpur is located in eastern Uttar Pradesh, presents a compelling case for in-depth study of these linkages. With a sizable rural population, socio-economic challenges, and recent infrastructure developments, Gorakhpur both reflects the larger developmental constraints of the region and offers instances of progress. According to district data, literacy in

¹ Census 2011 India. (2011). Gorakhpur city population census 2011 – Uttar Pradesh. Retrieved from <https://www.census2011.co.in/census/city/145-gorakhpur.html>

² IndiaStat District Environment. (2023). Enrolment in primary, basic, and middle education – Gorakhpur district, Uttar Pradesh. Retrieved from <https://www.indiastatdistrictenviron.com/uttarpradesh/gorakhpur/education/enrolmentinprimarybasicmiddleeducationalcategoriesofstudents/data-year/all-years>

³ Centre for Public Policy Research (CPPR). (2021, March 8). Gorakhpur: All that is wrong with the public healthcare system. Retrieved from <https://www.cppr.in/centre-for-comparative-studies/gorakhpur-all-that-is-wrong-with-the-public-healthcare-system>

⁴ Sen, A. (1999). Development as Freedom. Oxford University Press.

⁵ International Institute for Population Sciences (IIPS) & ICF. (2021). National Family Health Survey (NFHS-5), India, 2019-21: Uttar Pradesh (Fact Sheet). Government of India, Ministry of Health & Family Welfare. Retrieved from https://dhsprogram.com/pubs/pdf/FR374/FR374_UttarPradesh.pdf

Gorakhpur was recorded as 60.8 per cent (male 69.9 per cent; female 51.1 per cent) in 2011.⁶ Meanwhile, the State of Uttar Pradesh as a whole had a female population of above 6 years age who ever attended school at 76.2 per cent according to the national family health survey 5 (NFHS-5) conducted in 2019-21, up from 64.6% in the previous round.⁷ On the health front, the District Nutrition Profile for Gorakhpur reports alarming figures: in 2020, 30% of children under five year were weak, 23% underweight and 67 per cent anemic, demonstrating persistent public-health challenges.⁸

Despite these challenges, Gorakhpur has shown signs of improvement in service reach, institutional births and healthcare infrastructure. These suggest a dynamic context in which education and health outcomes may both shape and be shaped by local governance, policy implementation and socio-economic change. Yet the persistent gaps in female literacy, early-childhood nutrition, health inequities and school-health linkages underline that progress remains uneven and conditional.

The background of the study is twofold. First, by focusing on Gorakhpur, the study gives a detailed insight about how education and health at the district level developmentally coexists very much within an environment which presents constraints but also opportunities. Second, this research seeks to inform more about the specific policy and institutional framework whereby educational attainment and health can be jointly reinforced, which is a significant concern for policy-makers, practitioners and researchers concerned with human development in Eastern Up.

Accordingly, the objectives of this paper are:

1. To examine recent trends in educational outcomes (literacy rates, school enrolment, gender parity) and health outcomes (nutritional status, maternal and child health indicators) in Gorakhpur.
2. To examine the inter-linkages between education and health in this district; specifically, how deficits in one domain can slow down progress in the other.
3. To identify the key structural, social and policy level constraints inhibiting inclusive progress in both education and health.
4. To offer policy recommendations and practical strategies for strengthening the nexus of education and health in Gorakhpur, with implications for other comparable districts.

The remainder of the paper is structured as follows: Section 2 reviews the relevant literature on education–health linkages and the regional context of north-eastern Uttar Pradesh; Section 3 describes data sources and methodology; Section 4 presents empirical findings for Gorakhpur; Section 5 discusses the findings considering some key constraints and opportunities; and Section 6 concludes with policy implications and future research directions.

II. LITERATURE REVIEW

Education and health are two of the most important foundations of human development. Scholars such as Amartya Sen (1999) argued that both are forms of freedom that expand people's choices and improve their quality of life. In India, many research studies have shown that better education often leads to better health outcomes, while poor health can prevent children from completing schooling.⁹

II.1. EDUCATION IN INDIA AND UTTAR PRADESH

Education in India has improved since the implementation of policies like the Right to Education Act (2009) and Samagra Shiksha Abhiyan. However, large regional differences remain. According to the Unified District Information System for Education Plus (UDISE+) 2022–23, Uttar Pradesh's overall Gross Enrolment Ratio (GER) at the secondary level is lower than the national average, and the state continues to face challenges like high dropout rates and teacher shortages.¹⁰

⁶ Census 2011 India. (2011). Gorakhpur district census data 2011 – Uttar Pradesh. Retrieved from <https://www.census2011.co.in/census/district/547-gorakhpur.html>

⁷ International Institute for Population Sciences (IIPS) & ICF. (2021). National Family Health Survey (NFHS-5), India, 2019-21: Uttar Pradesh (Fact Sheet). Government of India, Ministry of Health & Family Welfare. Retrieved from https://dhsprogram.com/pubs/pdf/FR374/FR374_UttarPradesh.pdf

⁸ NITI Aayog. (2022). District Nutrition Profile: Gorakhpur, Uttar Pradesh. Government of India. Retrieved from <https://www.niti.gov.in/sites/default/files/2022-07/Gorakhpur-Uttar%20Pradesh.pdf>

⁹ Tilak, J. B. G. (2020). Education and development in India: Critical issues in policy and practice. *Economic and Political Weekly*, 55(9), 45–52

¹⁰ Ministry of Education (MoE). (2023). UDISE+ 2022–23 Report. Government of India. Retrieved from <https://udiseplus.gov.in>

In eastern Uttar Pradesh, including Gorakhpur, studies show that rural schools generally has poor infrastructure and multi-grade classrooms.¹¹ Female education is improving, yet social barriers and early marriage continue to limit girls' participation.¹² Despite these constraints, government programmes such as Kasturba Gandhi Balika Vidyalaya (KGBV) and Mid-Day Meal Scheme have played very important role in increasing girls' enrolment and reducing classroom hunger.¹³

II.II. HEALTH AND HEALTHCARE ACCESS

Regional disparities are also visible in health sector. The National Family Health Survey (NFHS-5) claims that Uttar Pradesh has improved in institutional deliveries and immunization coverage, but child malnutrition and maternal anemia remain serious problems.¹⁴ The District Nutrition Profile (2022) for Gorakhpur reports that one-third of children under 5 years are underweight, and more than 60 percent of women of reproductive age are anaemic.

Several researchers have interlinked these outcomes with low public-health spending, shortage of health workers, and limited community awareness.¹⁵ Poor sanitation and drinking-water quality in peri-urban and rural parts of Gorakhpur also contribute to grow disease burden, particularly diarrhoea and vector-borne infections.¹⁶

II.III. EDUCATION–HEALTH INTERLINKAGES

Education and health influence each other in multiple ways. Educated mothers are more keen to seek antenatal care, ensure child's immunity, and follow good hygiene practices.¹⁷ Conversely, healthy children attend school more regularly and perform better academically.¹⁸ The idea of school health programmes, which combine nutrition, hygiene and counselling in schools, has been successful to improve both learning and health outcomes in several Indian districts.¹⁹

In Gorakhpur, efforts such as health check-up camps in schools, nutrition weeks, and community-based awareness drives have shown positive impact, but sustainability and coverage remain weak.²⁰ Literature also points out that public-private partnerships and convergence between the Departments of Education, Health, and Women & Child Development can improve outcomes when well-coordinated.

II.IV. SUMMARY OF GAPS

Most existing studies discuss education or health separately, while very few examine how they interact at the district level. There is necessary requirement for detailed, local studies that could examine how education levels affect health awareness and how poor health constrains learning. This paper aims to fill that gap by providing a joint analysis of both sectors in Gorakhpur, identifying how policy and governance can strengthen this relationship for inclusive human development.

III. METHODOLOGY

III.I. RESEARCH DESIGN

This study applies a descriptive and analytical research design. It points out the relationship between education and health indicators in Gorakhpur district, UP. The main aim is to analyse trends, identify gaps, and explore how improvements in one sector influence the other. The study relies primarily on secondary data, which are collected from government reports, national

¹¹ NITI Aayog. (2022). District Nutrition Profile: Gorakhpur (Uttar Pradesh). Government of India. Retrieved from <https://www.niti.gov.in/sites/default/files/2022-07/Gorakhpur-Uttar%20Pradesh.pdf>

¹² Kumar, A., & Singh, R. (2021). Barriers to girls' secondary education in rural Uttar Pradesh. *Journal of Social Development Studies*, 18(2), 45–60.

¹³ Ministry of Education (MoE). (2023). UDISE+ 2022–23 Report. Government of India. Retrieved from <https://udiseplus.gov.in>

¹⁴ International Institute for Population Sciences (IIPS) & ICF. (2021). National Family Health Survey (NFHS-5), 2019–21: Uttar Pradesh. Government of India. Retrieved from https://dhsprogram.com/pubs/pdf/FR374/FR374_UTTARPRADESH.pdf

¹⁵ Patel, V., Kumar, P., & Desai, S. (2020). Challenges in rural public health delivery in Uttar Pradesh: A review. *Indian Journal of Community Medicine*, 45(3), 315–322.

¹⁶ Sharma, D., & Gupta, M. (2019). Environmental health and sanitation issues in eastern Uttar Pradesh. *Environmental Studies Review*, 12(1), 23–36

¹⁷ International Institute for Population Sciences (IIPS) & ICF. (2021). National Family Health Survey (NFHS-5), 2019–21: Uttar Pradesh. Government of India. Retrieved from https://dhsprogram.com/pubs/pdf/FR374/FR374_UTTARPRADESH.pdf

¹⁸ UNESCO. (2020). Global Education Monitoring Report 2020: Inclusion and Education. UNESCO Publishing.

¹⁹ Ministry of Health and Family Welfare (MoHFW). (2022). School Health and Wellness Programme: Implementation Guidelines. Government of India.

²⁰ District Administration Gorakhpur. (2024). Health initiatives and school programmes in Gorakhpur district. Government of Uttar Pradesh. Retrieved from <https://gorakhpur.nic.in/>

surveys, and district databases. Descriptive statistics are used to summarize the data, and simple analysis is applied to identify patterns between education and health outcomes.

III.II. DATA SOURCES

To maintain accuracy and credibility, only authentic and official data sources were used:

1. National Family Health Survey (NFHS-5, 2019–21): Conducted by the International Institute for Population Sciences (IIPS) and ICF under the Ministry of Health and Family Welfare (MoHFW). It provides data on fertility, maternal and child health, nutrition, and healthcare access for Gorakhpur district and Uttar Pradesh.
2. Unified District Information System for Education Plus: Published by the Ministry of Education (MoE), it provides information on school enrolment, dropout rates, gender parity, infrastructure, and teacher–student ratios.²¹
3. District Nutrition Profile – Gorakhpur (2022): Published by NITI Aayog in collaboration with UNICEF and DataDENT. It presents data on child nutrition, anemia, stunting, and underweight prevalence.²²
4. Census of India (2011): Used to understand population structure, literacy rate, and urban–rural distribution of Gorakhpur district.²³
5. District Administration Reports (2023–24): Official data from the gorakhpur.nic.in website provide updates on health infrastructure, school health activities, and local government programmes.²⁴

These sources together provide a broad and reliable foundation for understanding the present status of education and health in Gorakhpur.

III.III. STUDY AREA

Gorakhpur is situated in the eastern part of Uttar Pradesh and forms part of the Terai region near the Nepal border. It covers an area of about 3,484² kilometers and includes 19 administrative blocks and more than 3,000 villages. The district is a regional centre for education and healthcare in eastern Uttar Pradesh but still faces disparities in access between rural and urban areas.²⁵

IV. RESULTS AND DISCUSSION

IV.I. EDUCATIONAL TRENDS IN GORAKHPUR

Gorakhpur district has shown steady progress in literacy and school enrolment, though rural–urban and gender gaps persist. According to the Census of India (2011), the overall literacy rate in Gorakhpur was 70.8%, with 81.3% male literacy and 59.3% female literacy. This indicates that despite progress, women's education still lags significantly behind.

According to UDISE+ (2022–23) report²⁶, the Gross Enrolment Ratio (GER) at the primary level in Gorakhpur was 98.7%, which is slightly higher than the state average of Uttar Pradesh (96.5%). However, at the secondary level, GER falls to 74.2%, reflecting the challenge of retaining students, especially girls, beyond middle school.

The Gender Parity Index (GPI) at the upper-primary level stands around 0.94, suggesting that almost equal numbers of boys and girls are enrolled, but dropout rates remain higher among girls in rural parts.²⁷ Key reasons for dropout include household responsibilities, early marriages, and lack of transport facilities for higher secondary schools.

²¹ Ministry of Education (MoE). (2023). Unified District Information System for Education Plus (UDISE+) 2022–23 Report. Government of India. Retrieved from <https://udiseplus.gov.in>

²² NITI Aayog. (2022). District Nutrition Profile: Gorakhpur (Uttar Pradesh). Government of India. Retrieved from <https://www.niti.gov.in/sites/default/files/2022-07/Gorakhpur-Uttar%20Pradesh.pdf>

²³ Census of India. (2011). Gorakhpur district census handbook – Uttar Pradesh. Office of the Registrar General & Census Commissioner, Government of India. Retrieved from <https://censusindia.gov.in>

²⁴ District Administration Gorakhpur. (2024). District at a glance – Gorakhpur. Government of Uttar Pradesh. Retrieved from <https://gorakhpur.nic.in/>

²⁵ District Administration Gorakhpur. (2024). District at a glance – Gorakhpur. Government of Uttar Pradesh. Retrieved from <https://gorakhpur.nic.in/>

²⁶ Unified District Information System for Education Plus (UDISE+) 2022–23 Report

²⁷ NITI Aayog. (2022). District Nutrition Profile: Gorakhpur (Uttar Pradesh). Government of India. Retrieved from <https://www.niti.gov.in/sites/default/files/2022-07/Gorakhpur-Uttar%20Pradesh.pdf>

Several government interventions, such as Kasturba Gandhi Balika Vidyalaya (KGBV) and Mid-Day Meal Scheme, have helped improve enrolment and attendance, especially among disadvantaged communities. The quality of education measured through availability of teachers and learning outcomes remains uneven across blocks.²⁸

IV.II. HEALTH INDICATORS AND OUTCOMES

The NFHS-5 (2019–21) data show that Gorakhpur has achieved commendable progress in some health indicators but continues to struggle with nutrition and maternal health.

1. Institutional births increased from 66.5% in NFHS-4 to 82.7% in NFHS-5, showing improvement in maternal healthcare access.
2. Full immunity among children aged 12–23 months improved to 78%, reflecting effective outreach of health programmes.
3. However, stunting (low height-for-age) affects 39% of children under five, and wasting (low weight-for-height) affects 22%, which are poor than the national averages.²⁹
4. Around 62% of women aged 15–49 years in Gorakhpur are anaemic, compared to the national figure of 57%, indicating a serious public-health concern.

The District Nutrition Profile highlights that food insecurity, poor diet diversity, and lack of health awareness contribute to the persistence of malnutrition and anemia. Poor sanitation and open defecation in rural belts aggravate the situation, increasing waterborne diseases.³⁰

IV.III. LINKING EDUCATION AND HEALTH OUTCOMES

Education has direct impact on health outcomes in Gorakhpur. The NFHS-5 shows that women who has secondary or higher education are twice as likely to access antenatal care (four or more visits) and institutional deliveries compared to those with no schooling. Similarly, child immunisation rates and nutritional outcomes improve as the mother's education level increases. The School Health and Wellness Programme, implemented under Ayushman Bharat, is an important step in linking education and health. Schools in Gorakhpur that conduct regular health check-ups and nutrition awareness sessions show lower absenteeism and better hygiene practices among students.

These programmes often face challenges of irregular implementation and shortage of trained health workers in schools. Sustainability requires stronger coordination between the Departments of Education, Health, and Women & Child Development at the district level.

IV.IV. DISCUSSION

The results indicate that while Gorakhpur has made quantitative progress in literacy, enrolment, and healthcare access but qualitative improvements remain limited. Education and health outcomes are closely connected: poor nutrition reduces school performance, and lack of health awareness perpetuates intergenerational cycles of poverty and disease. A major challenge is the urban–rural divide. Urban Gorakhpur enjoys better schooling facilities and hospitals, while rural areas struggles with poor connectivity and teacher or doctor shortages. This imbalance leads to uneven development within the same district.

To move forward, a holistic approach is essential:

1. Integrate school health programmes with nutrition monitoring.
2. Strengthen female education to improve maternal and child health.
3. Improve quality of teaching and ensure local accountability in government schools.
4. Enhance community participation and awareness through panchayat and self-help group involvement.

²⁸ Ministry of Education (MoE). (2023). Unified District Information System for Education Plus (UDISE+) 2022–23 Report. Government of India. Retrieved from <https://udiseplus.gov.in>

²⁹ NITI Aayog. (2022). District Nutrition Profile: Gorakhpur (Uttar Pradesh). Government of India. Retrieved from <https://www.niti.gov.in/sites/default/files/2022-07/Gorakhpur-Uttar%20Pradesh.pdf>

³⁰ Sharma, D., & Gupta, M. (2019). Environmental health and sanitation issues in eastern Uttar Pradesh. *Environmental Studies Review*, 12(1), 23–36.

These measures can promote inclusive and sustainable human development in Gorakhpur, making education and health mutually reinforcing pillars of growth.

V. CONCLUSION AND POLICY RECOMMENDATIONS

V.I. CONCLUSION

This study examined the codependence between education and health in Gorakhpur, a key district in eastern Uttar Pradesh. Using secondary data from NFHS-5, UDISE+, NITI Aayog, and district administration reports, it found that Gorakhpur has made steady but uneven progress across both sectors. On the education front, enrolment rates in primary schools are high, and gender parity has improved. However, challenges remain in quality of education, secondary-level retention, and infrastructure gaps between rural and urban areas. Female literacy, though improving, continues to lag behind male literacy.

In terms of health, Gorakhpur has achieved strong gains in institutional deliveries and immunisation, but malnutrition, anemia, and sanitation problems persist especially in rural blocks. The findings clearly suggest that education and health are interdependent: educated women are more keen to seek medical care, maintain hygiene, and ensure better nutrition for their families, while healthy children perform better in schools and stay enrolled longer. Gorakhpur's path to sustainable development depends on how effectively it integrates these two sectors. Strengthening education and health together can create long-term human development gains.

V.II. POLICY RECOMMENDATIONS

1. Strengthen School–Health Integration: Schools should be used as platforms for promoting health awareness, nutrition, and hygiene. The School Health and Wellness Program under Ayushman Bharat should be expanded to cover all government and aided schools. Regular health check-ups, anemia screening, and deworming camps must be institutionalised.³¹
2. Focus on Female Education and Empowerment: Special scholarships and hostel facilities for girls from rural and minority backgrounds can reduce dropout rates after Class 8. Awareness campaigns through Self-Help Groups (SHGs) and panchayats can address social barriers like early marriage.³²
3. Improve Quality of Teaching and Learning: Recruitment of trained teachers, digital classrooms, and remedial education support are necessary to improve learning outcomes. Partnerships with local NGOs and EdTech initiatives can help bridge teacher shortages.³³
4. Enhance Nutrition and Health Infrastructure: The District Nutrition Profile (2022) highlights widespread undernutrition. Expanding Integrated Child Development Services (ICDS) centres and improving dietary diversity in the Mid-Day Meal Scheme can reduce child stunting and anemia.³⁴
5. Build Local Governance and Data Systems: Block-level planning committees should regularly monitor health and education indicators. Local data dashboards can help track progress in school attendance, anemia rates, and sanitation coverage. It will insure development more evidence-based and accountable.³⁵
6. Promote Public–Private and Community Partnerships: Engaging private hospitals, local industries, and community-based organisations in health and education initiatives can increase resource availability. Corporate Social Responsibility (CSR) projects should prioritise girl education, school sanitation, and nutrition awareness in rural Gorakhpur.

The case of Gorakhpur shows that improvements in education and health cannot occur in isolation. Future strategies should aim to create a “human development ecosystem” where education, health, sanitation, and gender equality reinforce one another. Continued investment in early childhood education, preventive healthcare, and data-driven governance can ensure that every child in Gorakhpur not only goes to school but also grows up healthy, skilled, and empowered.

³¹ Ministry of Health and Family Welfare (MoHFW). (2022). *School Health and Wellness Programme: Implementation Guidelines*. Government of India.

³² Kumar, A., & Singh, R. (2021). Barriers to girls' secondary education in rural Uttar Pradesh. *Journal of Social Development Studies*, 18(2), 45–60.

³³ Ministry of Education (MoE). (2023). *Unified District Information System for Education Plus (UDISE+) 2022–23 Report*. Government of India. Retrieved from <https://udiseplus.gov.in>

³⁴ NITI Aayog. (2022). *District Nutrition Profile: Gorakhpur (Uttar Pradesh)*. Government of India. Retrieved from <https://www.niti.gov.in/sites/default/files/2022-07/Gorakhpur-Uttar%20Pradesh.pdf>

³⁵ District Administration Gorakhpur. (2024). *District at a glance – Gorakhpur*. Government of Uttar Pradesh. Retrieved from <https://gorakhpur.nic.in/>

REFERENCES

1. Census 2011 India. (2011). Gorakhpur city population census 2011 – Uttar Pradesh. Retrieved from <https://www.census2011.co.in/census/city/145-gorakhpur.html>
2. Centre for Public Policy Research (CPPR). (2021, March 8). Gorakhpur: All that is wrong with the public healthcare system. Retrieved from <https://www.cppr.in/centre-for-comparative-studies/gorakhpur-all-that-is-wrong-with-the-public-healthcare-system>
3. District Administration Gorakhpur. (2024). Health facilities in Gorakhpur district. Government of Uttar Pradesh. Retrieved from <https://gorakhpur.nic.in/health/>
4. IndiaStat District Environment. (2023). Enrolment in primary, basic, and middle education – Gorakhpur district, Uttar Pradesh. Retrieved from <https://www.indiastatdistrictenviron.com/uttarpradesh/gorakhpur/education/enrolmentinprimarybasicmiddleeducationallcategoriesofstudents/data-year/all-years>
5. Census 2011 India. (2011). Gorakhpur district census data 2011 – Uttar Pradesh. Retrieved from <https://www.census2011.co.in/census/district/547-gorakhpur.html>
6. District Administration Gorakhpur. (2024). At a glance – Gorakhpur district profile. Government of Uttar Pradesh. Retrieved from <https://gorakhpur.nic.in/at-a-glance/>
7. NITI Aayog. (2022). District Nutrition Profile: Gorakhpur, Uttar Pradesh. Government of India. Retrieved from <https://www.niti.gov.in/sites/default/files/2022-07/Gorakhpur-Uttar%20Pradesh.pdf>
8. International Institute for Population Sciences (IIPS) & ICF. (2021). National Family Health Survey (NFHS-5), India, 2019-21: Uttar Pradesh (Fact Sheet). Government of India, Ministry of Health & Family Welfare. Retrieved from https://dhsprogram.com/pubs/pdf/FR374/FR374_UttarPradesh.pdf
9. The DHS Program. (2021, November). National, State and Union Territory, and District Fact Sheets 2019-21 National Family Health Survey (NFHS-5). Retrieved from <https://dhsprogram.com/publications/publication-OF43-Other-Fact-Sheets.cfm>
10. District Administration Gorakhpur. (2024). Health initiatives and school programmes in Gorakhpur district. Government of Uttar Pradesh. Retrieved from <https://gorakhpur.nic.in/>
11. Kumar, A., & Singh, R. (2021). Barriers to girls' secondary education in rural Uttar Pradesh. *Journal of Social Development Studies*, 18(2), 45–60.
12. Ministry of Health and Family Welfare (MoHFW). (2022). School Health and Wellness Programme: Implementation Guidelines. Government of India.
13. Patel, V., Kumar, P., & Desai, S. (2020). Challenges in rural public health delivery in Uttar Pradesh: A review. *Indian Journal of Community Medicine*, 45(3), 315–322.
14. Sen, A. (1999). *Development as Freedom*. Oxford University Press.
15. Sharma, D., & Gupta, M. (2019). Environmental health and sanitation issues in eastern Uttar Pradesh. *Environmental Studies Review*, 12(1), 23–36.
16. Tilak, J. B. G. (2020). Education and development in India: Critical issues in policy and practice. *Economic and Political Weekly*, 55(9), 45–52.
17. UNESCO. (2020). *Global Education Monitoring Report 2020: Inclusion and Education*. UNESCO Publishing.
18. Census of India. (2011). Gorakhpur district census handbook – Uttar Pradesh. Office of the Registrar General & Census Commissioner, Government of India. Retrieved from <https://censusindia.gov.in>
19. District Administration Gorakhpur. (2024). School health and wellness initiatives in Gorakhpur district. Government of Uttar Pradesh. Retrieved from <https://gorakhpur.nic.in/>
20. Ministry of Education (MoE). (2023). Unified District Information System for Education Plus (UDISE+) 2022–23 Report. Government of India. Retrieved from <https://udiseplus.gov.in>