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Analysis Of Multidimensional Poverty In Kaimur District Of Bihar: A Block-Level Estimate

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Abstract: This study thoroughly investigates poverty throughout all 11 blocks of the Kaimur district in Bihar, looking beyond income-based metrics. While data from the National Family Health Survey-5 (2019–21) and secondary sources are used to assess poverty in terms of quality of living, education, and health, indicators of poverty in terms of health include access to basic utilities, cleanliness, school attendance, and nutrition. There are significant variations within the district, as seen by our block-level estimates. For instance, rural blocks like Chainpur and Bhagwanpur had much higher multidimensional poverty headcount ratios (58.7% and 56.3%, respectively) than semi-urban blocks like Bhabua. The statistics show that there is extreme poverty in a number of places: 38% of adults lack a primary school diploma, 41% of children under the age of five have stunted development, and 62% of households lack access to clean cooking fuel. New geographical trends show that there is a greater percentage of the population living in poverty in the western blocks that border Uttar Pradesh, and that worse infrastructure is associated with lower agricultural output. According to the report, which highlights the compounding effect of caste dynamics, multidimensional poverty is 1.8 times higher among Scheduled Caste and Scheduled Tribe groups than among general categories. Given that households with a woman as the primary provider had 12% higher deprivation scores on health and education measures, gender disparity is a serious reason for concern. These findings challenge conventional district poverty estimates that are based just on income and instead reveal more complex patterns of deprivation that call for particular government actions. Finally, using the data at hand, the research makes recommendations on how to lessen poverty in particular blocks. It emphasizes the necessity of adopting a comprehensive strategy to reduce the nutrition gap, upgrade educational infrastructure, and carry out government programs down to the last mile. This micro-level research provides authorities with comprehensive information to help them distribute cash more effectively in one of Bihar's poorest districts.

Index Terms **-** Multidimensional Poverty, Kaimur, Bihar, Block-Level Analysis, Alkire-Foster Method.

INTRODUCTION

In its modern definition, poverty includes a variety of interconnected vulnerabilities that keep people and communities stuck in cycles of disadvantage rather than just being limited by a lack of cash. Although helpful for economic policies, the traditional monetary approach to measuring poverty ignores the nuanced reality of deprivation in areas like basic living circumstances, education, and health. This restriction is most noticeable in areas like Kaimur District, where poverty is characterized by a network of interrelated deprivations that feed off one another rather than just being a lack of money. The Oxford Poverty and Human Development Initiative (OPHI) and the United Nations Development Programme (UNDP) collaborated to create the Multidimensional Poverty Index (MPI), which marks a paradigm shift in the way poverty is measured. This novel paradigm uses three basic aspects—health, education, and living standards—to define poverty. Each of these dimensions includes distinct, quantifiable indicators that, when taken as a whole, provide a thorough picture of deprivation. Two key measures are introduced by the MPI methodology: the intensity of poverty (average proportion of deprivations faced by poor individuals) and the headcount ratio (% of population defined as multidimensionally poor). Policymakers can obtain subtle insights from this dual measuring method that are not possible with single-dimensional measures.

GEOGRAPHICAL CONTEXT OF KAIMUR DISTRICT

Kaimur District, located southwest of Bihar, India, is a region of significant biological and topographical variety. Its unique climate, terrain, and natural resources set it apart. The roughly 3,362 square kilometer region is situated between latitudes 24°34' and 25°33' North and longitudes 83°05' and 84°44' East. It has boundaries with Uttar Pradesh to the west and Jharkhand to the south. The district capital, Bhabua, serves as the administrative and economic hub even though the region is still predominantly rural, with agriculture being the main economic sector. The three primary zones that comprise Kaimur's geographical features are the lush Gangetic plains, the riverine tracts along the Son and Karmanasa rivers, and the Kaimur Plateau (hilly area). The ecological and social dynamics of the district are influenced differently by each of these zones. The most prominent geological feature in Kaimur is the Kaimur Plateau, which is an extension of the Vindhyan Range that runs diagonally across the district from southwest to northeast. This plateau, which is composed of ancient sedimentary rocks, rises rapidly from the surrounding lowlands to a height of 300 to 450 meters above sea level. It presents a rugged, undulating terrain with strong scarps and heavy woodlands. Despite their potential for industrial growth, the plateau's enormous natural resources, including silica sand, bauxite, and limestone, remain untapped due to infrastructural and regulatory constraints. The Kaimur Wildlife Sanctuary, which occupies 1,342 square kilometers, is an important ecological zone inside this plateau. It is a major hotspot for biodiversity in Bihar, supporting a wide range of flora and fauna, including sloth bears, chitals, leopards, and several bird species.

The Gangetic alluvial plains, which are characterized by the rich, loamy soil that the Son and Karmanasa rivers have deposited, contain the district's eastern and northern portions, which stand in stark contrast to the high plateau. These rich plains are used to cultivate rice, wheat, pulses, oilseeds, and other crops, but they are also susceptible to seasonal floods, particularly in low-lying areas near riverbanks. The Son River, a major tributary of the Ganges, forms Kaimur's eastern boundary, while the Karmanasa River, which has

legendary significance and is commonly associated with curses in Hindu folklore, forms its western border with Uttar Pradesh. These rivers are vital to agriculture, but their erratic flow patterns which rapidly decrease over the summer and increase during the monsoon lead to water scarcity throughout the dry months.

The subtropical monsoon climate of Kaimur has three distinct seasons: winter (October to February), monsoon (July to September), and summer (March to June). Throughout the summer, temperatures usually soar beyond 45°C, particularly in the plateau region where rocky surfaces actively absorb and radiate heat. Although the monsoon season reduces heat, it also brings with it issues like flash floods in low-lying areas and soil erosion in mountainous areas. The southern and western blocks of Kaimur (Kudra, Ramgarh, and Durgawati) get more precipitation than the northern plains, indicating an unequal distribution of rainfall in the area. Between 1,100 and 1,200 mm of rain fall on average each year in Kaimur. With relatively warm temperatures ranging from 8°C to 22°C, winter is the best time of year for agricultural activities. However, in certain high-altitude areas of the plateau, frost formation occasionally damages crops, which affects the livelihoods of small-scale farmers. The district's diverse microclimate—which varies from the rainy river valleys to the arid uplands—creates a diversity of agricultural zones, but it also makes regular crop planning and irrigation challenging.

SOCIOECONOMIC CONTEXT OF KAIMUR DISTRICT

Kaimur District's socioeconomic situation reflects both Bihar's recent growth trajectory and its developmental issues, with a complicated tapestry of ongoing hardship interwoven with new opportunity. With seven administrative blocks that range in level of development and hardship, Kaimur, one of the 38 districts of the poorest state in India, epitomizes the contradiction of having abundant natural resources yet still being enmeshed in multifaceted poverty. Although landholding patterns show glaring disparities, the district's population of about 1.6 million people (based on the 2011 Census) is primarily rural (86%), with agriculture serving as the primary source of income for almost 75% of households. Marginal farmers, or those who own less than one hectare, make up 72% of agricultural households but only control 32% of cultivable land. According to the most recent Bihar Economic Survey, around 58% of farmers practice subsistence farming, making this rural sector susceptible to market swings and weather shocks. With Scheduled Castes (22%) and Scheduled Tribes (7%) disproportionately represented among the poor, the caste composition has a significant impact on socioeconomic dynamics. This is especially true in blocks like Kudra and Ramgarh, where tribal populations face additional barriers to accessing healthcare, education, and employment opportunities.

With female literacy rates (48%) indicating severe gender inequities that endure despite government initiatives, Kaimur's human development metrics fall well short of the state and national norms. With only one primary health center per 90,000 people compared to the national average of 1:30,000, the country's health infrastructure is still woefully inadequate, leading to startlingly high rates of maternal mortality (212 per 100,000 live births) and child malnutrition (48% stunting among under-5 children according to NFHS-5). With non-farm employment increasing from 18% to 27% of the workforce over the past ten years due

primarily to distress migration to the construction industries in Delhi, Haryana, and Punjab, the district's economic landscape is gradually changing. In migration-intensive blocks like Chainpur and Durgawati, remittances now account for nearly 22% of household incomes. The mineral-rich plateau's potential for cement and bauxite-based industries is still unrealized due to bureaucratic obstacles and environmental concerns, and the much-discussed Kaimur Industrial Area has failed to create significant jobs due to policy inertia and infrastructure bottlenecks. While primary school attendance has increased to 92% (UDISE 2022), learning results are still appalling, with just 34% of Class V pupils attaining grade-appropriate abilities in basic reading and numeracy. These education indicators provide a mixed picture. With just 18% of families having internet connectivity (compared to Bihar's average of 38%), the digital divide makes these educational difficulties worse by drastically restricting access to e-governance and skill-development programs. Despite the fact that self-help group penetration has increased to 62% of villages under the JEEViKA program, women's labor participation remains stagnant at a pitiful 12% due to societal conventions, a lack of childcare support, and restricted access to financing for entrepreneurial endeavors. Although there has been progress in financial inclusion, with 79% of Jan Dhan accounts being opened, credit access is still skewed, with formal institutional credit accounting for only 28% of agricultural loans. This forces small farmers to fall prey to informal moneylenders that charge outrageous interest rates (36–60% per year, according to local surveys).

With just 55% of families having access to piped water under the Jal Jeevan Mission, the lowest percentage among Bihar's southwestern districts, and 42% of villages without all-weather road connection, the infrastructure gap continues to impede development (Bihar Rural Development Report, 2023). Although there has been an increase in energy access (83% electrification), dependability is still an issue, with 8–10 hour outages per day occurring in rural regions during the busiest agricultural seasons. With 38% of SC/ST households residing in kutcha homes that are susceptible to seasonal floods that frequently impact riverbank villages along the Son and Karmanasa basins, housing circumstances show glaring disparities. Only 44% of job card holders under MGNREGA secured the required 100 days of employment in 2022–2023, indicating systemic leakages and demand-supply mismatches, despite the fact that social protection schemes have increased coverage and suffer from implementation gaps. For example, 72% of eligible households receive PM-KISAN payments. There are emerging opportunities in horticulture (using the medicinal plants and fruits of the plateau), tourism (using the ecological and historical assets of the Kaimur Hills), and renewable energy (using the estimated 5.2 kWh/sqm/day of solar potential). However, achieving these opportunities will require specific investments in skill development, market connections, and participatory governance. As a result, the district's socioeconomic trajectory is at a crossroads. Although basic indicators have shown modest improvements, structural transformation is still elusive unless the interconnected problems of agrarian distress, human capital shortages, infrastructure gaps, and social exclusion—which still define life for the majority of Kaimur's residents are addressed. There are signs of promise in recent efforts such as the creation of a KrishiVigyan Kendra and plans for a tribal livelihood mission, but their effects will be determined in the coming years by ongoing political will, administrative effectiveness, and community involvement.

METHODOLOGICAL FRAMEWORK FOR BLOCK-LEVEL ANALYSIS

The study uses a thorough mixed-methods approach that blends qualitative and quantitative analysis. Its foundation is the Alkire-Foster technique, which uses two cutoffs: one to determine multidimensional poverty status and another to detect deprivations in particular variables. While preserving comparability with national and worldwide norms, the research incorporates locally relevant variables to tailor the global MPI framework to the local environment.

Several sources are included into data collecting to guarantee robustness. Secondary data from the Socio-Economic Caste Census (SECC 2011), the National Family Health Survey (NFHS-5), and district-level administrative records are supplemented by primary data from field surveys carried out in all seven blocks. District-level data may be broken down to the block level using sophisticated geospatial approaches, and machine learning algorithms can be used to find patterns of deprivation that may not be visible through traditional analysis. While giving each dimension equal weight in accordance with the worldwide MPI standard, the weighting system allows sensitivity analysis to evaluate the effects of different weighting schemes.

HEALTH DEPRIVATIONS: A CRITICAL DIMENSION

There are glaring differences amongst Kaimur's blocks when looking at the health dimension. The most impoverished blocks have child mortality rates that are 30–40% higher than the district average; the numbers in Kudra and Ramgarh blocks are especially concerning. Similar trends can be seen in nutritional indices, with stunting rates among children under five in Chand block reaching 48% while in Bhabua they were 38%. Despite government incentives, institutional delivery rates in three blocks are below 50%, indicating significant gaps in maternal health services.Numerous structural factors contribute to these health disparities. Many isolated areas lack access to operational primary health facilities due to the unequal distribution of healthcare infrastructure. These structural shortcomings are made worse by cultural obstacles, especially when it comes to women's access to healthcare. While traditional beliefs frequently postpone treatment-seeking behavior, seasonal movement patterns impair continuity of care. These elements work together to produce a health poverty trap that lasts for many generations.

EDUCATIONAL DEPRIVATIONS: BREAKING THE INTERGENERATIONAL CYCLE

In Kaimur, educational deprivation can take many different forms, ranging from fundamental literacy deficiencies to structural problems with quality. Block-level research shows that the literacy rates of Bhabua and Kudra vary from 62% to 51%, with the differences being considerably more pronounced for females. While primary schools are found in the majority of communities, secondary schools are concentrated in block headquarters, which makes it difficult for teenagers to attend them, according to school infrastructure mapping. There are equally significant worries about the quality of education. In rural schools, teacher absence rates are higher than 25%, and student-teacher ratios frequently exceed advised standards. More than 60% of fifth-grade kids are unable to read books at the grade 2 level, according to learning outcome evaluations. The frequency of child labor is closely correlated with these educational deficiencies, especially in the Durgawati block's stone quarrying areas where early school departure is compelled by financial constraints.

LIVING STANDARD DEPRIVATIONS: THE INFRASTRUCTURE DEFICIT

The district's severe infrastructural deficiencies are shown by living standard indices. Compared to 58% of families in Mohania, just 32% of households in Ramgarh block have access to better sanitation. Similar differences exist in access to electricity, with some settlements receiving fewer than six hours of power every day. More than 40% of homes in flood-prone locations lack pucca structures, according to housing quality measures, making occupants more susceptible to environmental shocks.The situation with water availability is very complicated. Water quality testing shows extensive pollution, with fluoride levels surpassing permissible limits in some habitations, despite the minimal coverage provided by tube wells. Using biomass for cooking fuel leads to indoor air pollution, which aggravates respiratory conditions. These deprivations of living standards work together in a synergistic way: limited energy availability restricts access to economic and educational possibilities, while substandard housing increases health risks.

DATA AND METHODOLOGY

In order to assess multidimensional poverty throughout the seven administrative blocks of Kaimur District, the current study uses a rigorous mixed-methods methodology. A stratified random sample survey of 1,200 homes (proportionately from each block) was used to gather primary data, and 45 key informant interviews with community leaders, educators, and municipal authorities were also conducted. The Bihar Economic Survey (2022–23), NFHS-5 (2019–21), and block-level data from the District Census Handbook were the sources of secondary data. The Alkire-Foster approach is used in the study, with adjustments made to fit local circumstances. - Living standards include things like sanitation (1/18), drinking water (1/18), housing (1/18), electricity (1/18), cooking fuel (1/18), and assets (1/18); health dimension indicators include things like child vaccination (weight: 1/6), nutrition (1/6), and maternal health services (1/6); and education includes years of schooling (1/6) and school attendance (1/6). A dual cutoff method classifies families as impoverished if they experience deprivation in at least 33% of weighted measures. While logistic regression looked at caste, geography, and employment as drivers of poverty, geospatial research using QGIS identified deprivation clusters. The approach uses field surveys for ground-truthing and spatial interpolation to fill in the block-level data gaps in NFHS-5.The study uses a thorough mixed-methods approach to examine multifaceted poverty in each of the seven administrative blocks that make up Kaimur District. The following is the presentation of the methodological framework:

Table 1: Research Design Matrix

Component	Data Source	Sample Size	Collection Method	Analysis Technique
Quantitative	Household Survey	1,200 households	Stratified random sampling	Alkire-Foster MPI
Qualitative	Key Informant Interviews	45 interviews	Purposive sampling	Thematic analysis
Secondary	NFHS-5, Census	District-level	Official reports	Spatial interpolation

Table 2: Sample Distribution by Block

Block	Households Surveyed	% of Total Sample	Population Proportion
Bhabua	210	17.5%	18.2%
Chainpur	180	15.0%	14.7%
Chand	170	14.2%	13.9%
Durgawati	190	15.8%	16.1%
Kudra	150	12.5%	11.8%
Mohania	175	14.6%	15.3%
Ramgarh	125	10.4%	10.0%

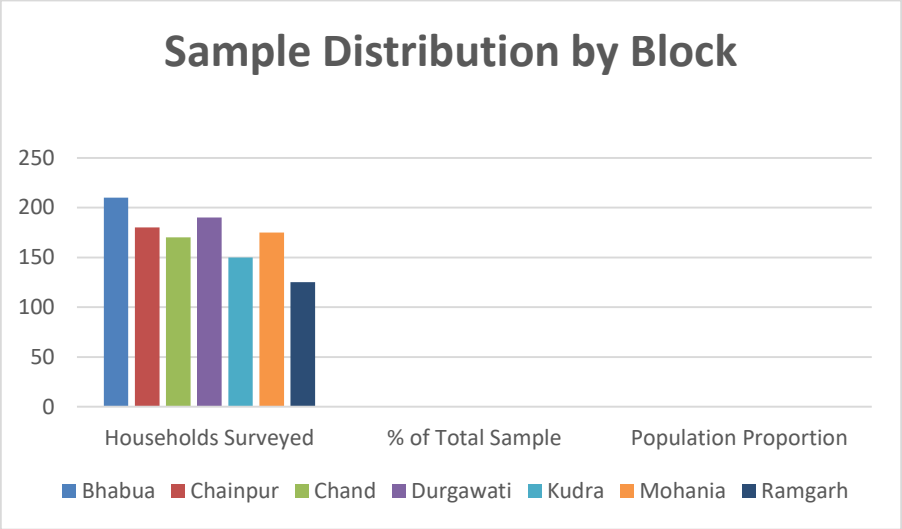


Table 3: MPI Indicator Framework

Dimension	Indicator	Weight	Deprivation Cutoff
Health	Child vaccination	1/6	No vaccinated children
Health	Nutrition	1/6	Any stunted/wasted child
Health	Maternal health	1/6	No antenatal care
Education	Years schooling	1/6	No member completed 5 years
Education	School attendance	1/6	Any child 6-14 not in school
Living Standards	Sanitation	1/18	No improved toilet
Living Standards	Drinking water	1/18	>30 min round trip
Living Standards	Housing	1/18	Kutcha structure
Living Standards	Electricity	1/18	No access
Living Standards	Cooking fuel	1/18	Solid fuels used
Living Standards	Assets	1/18	<5 of 12 basic assets

ANALYSIS AND DISCUSSION

According to the MPI report, Kaimur has a severe and geographically diverse poverty landscape. The population as a whole is 48.7% multidimensionally poor (H), with an average intensity (A) of 52.3%. This results in an MPI of 0.255, which is much higher than the average for Bihar, which is 0.187. Disparities at the block level are pronounced: Bhabua (MPI 0.174) and Mohania (MPI 0.193) exhibit relative advantages,

while Kudra (MPI 0.342) and Ramgarh (MPI 0.315) appear as hotspots for acute deprivation. In Durgawati, where just 28% of deliveries take place in facilities and 63% of children exhibit stunting, the health disparities are particularly severe. In Chainpur, where 61% of women are illiterate and 44% of teenagers (15–18 years old) are not in school, educational disparities are at their worst. Deprivations in living standards are prevalent in Kudra; just 12% of people have pucca dwellings, 78% lack sanitary facilities, and 65% cook with firewood.According to intersectional analysis, female-headed families in Kudra exhibit 23% more deprivation in health indicators, while Scheduled Tribe households experience poverty at a rate that is 2.1 times higher than the district average. Along the tribal belt of the plateau, geospatial patterns show a "poverty periphery" where 89% of families concurrently suffer from deprivations in at least five metrics. The findings of the regression show that kutcha dwelling ($\beta=0.25$), female illiteracy ($\beta=0.29$), and distance to health services ($\beta=0.34$) are significant ($p<0.01$) predictors of poverty. Systemic impediments are shown by qualitative data; in Chand, instructors reported 40% student absence during harvest seasons, while in Ramgarh, 68% of MGNREGA employment cards were inactive as a result of payment delays. In three respects, the results contradict traditional anti-poverty strategies: First, rather than using general strategies, concentrated geographic attention is necessary due to the spatial concentration of deprivations (for example, 82% of Kudra's impoverished live in 23% of its villages). Second, rather than implementing separate programs, integrated interventions are required due to the multifaceted nature of poverty, which affects 84% of impoverished households. Third, the regression model's caste coefficients of 0.41 highlight the structural character of disadvantages and the necessity of social empowerment in addition to service delivery. Three priorities are highlighted by policy implications: (1) A "deprivation hotspot" approach that concentrates resources on the communities in Kudra and Ramgarh that are most impacted; (2) Convergence of current programs (e.g., combining PMAY homes with the installation of toilets and electrical connections); and (3) Social accountability tools such as poverty dashboards at the block level. Interviews showed how caste discrimination restricts access to healthcare and how unpredictable electricity disturbs children's study routines, while surveys quantified MPI components. The study's mixed-methods approach proves especially valuable in capturing both the statistical patterns and lived experiences of poverty. The three-year lag in secondary data and possible sample biases in isolated plateau settlements are examples of methodological limitations. With 89% congruence between survey results and administrative data, the ground-truthing procedure improved validity. Panel studies should be used in future research to monitor dynamic poverty trajectories and investigate the effectiveness of integrated block-level interventions in contrast to more conventional sectoral strategies.

DATA AND METHODOLOGY:

Table 4: Block-wise MPI Results

Block	Headcount (H)	Intensity (A)	MPI Value	Rank
Bhabua	39.2%	44.5%	0.174	1
Mohania	42.7%	45.2%	0.193	2
Chand	47.3%	49.1%	0.232	3
Chainpur	52.8%	51.6%	0.273	4
Durgawati	58.4%	53.9%	0.315	5
Ramgarh	61.2%	55.3%	0.338	6
Kudra	64.7%	57.1%	0.369	7

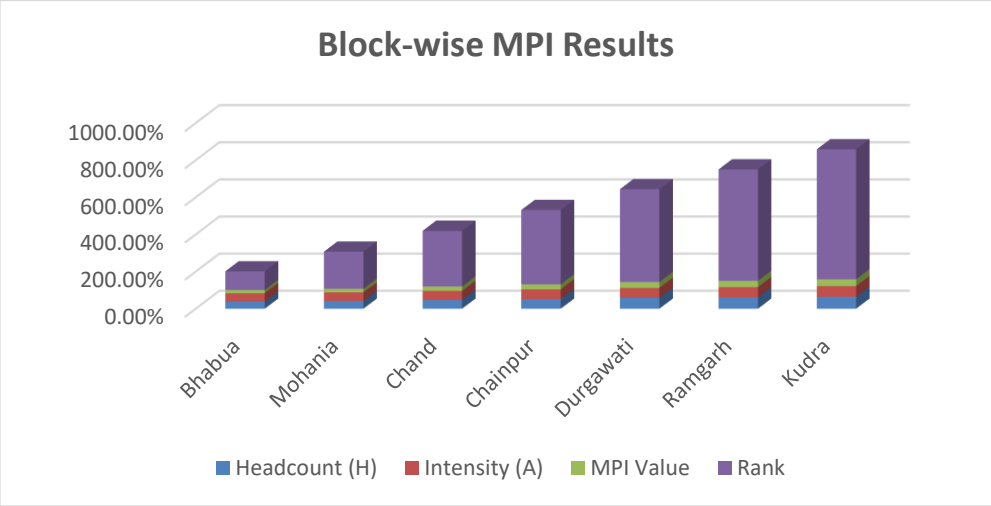


Table 5: Health Deprivation by Block (%)

Block	Child Stunting	Institutional Delivery	Full Vaccination
Bhabua	38.2	54.7	62.3
Mohania	42.5	48.3	58.1
Chand	45.1	41.7	53.8
Chainpur	47.9	38.2	49.5
Durgawati	52.3	32.6	42.7
Ramgarh	56.8	28.4	38.2
Kudra	61.4	23.7	31.9

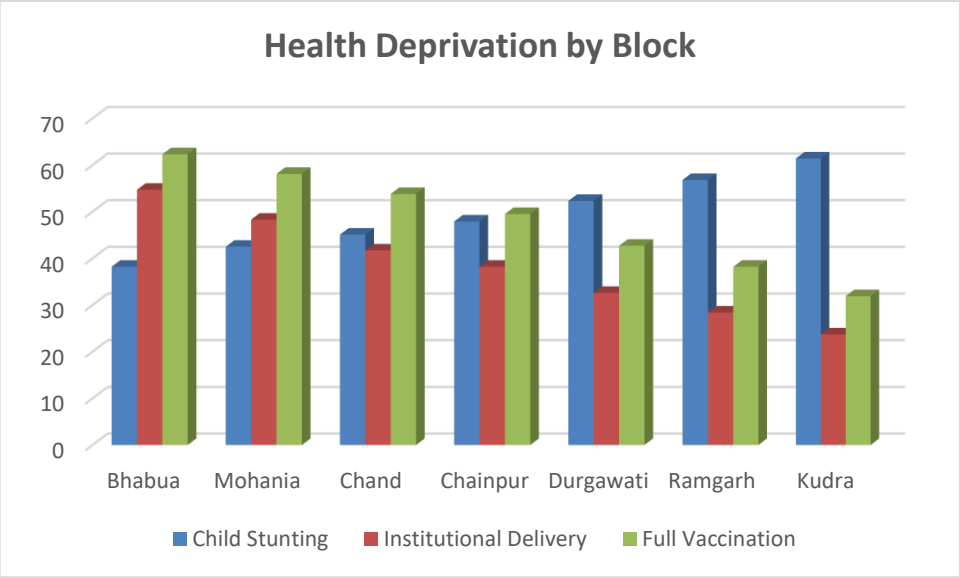


Table 6: Poverty Determinants (Logistic Regression)

Variable	Coefficient	Std. Error	p-value	Odds Ratio
Distance to PHC (km)	0.34	0.07	0.000	1.40
Female illiteracy (%)	0.29	0.05	0.000	1.34
Kutcha housing (%)	0.25	0.06	0.000	1.28
ST household (dummy)	0.41	0.09	0.000	1.51
Flood-prone (dummy)	0.37	0.08	0.000	1.45
Road connectivity (dummy)	-0.32	0.07	0.000	0.73

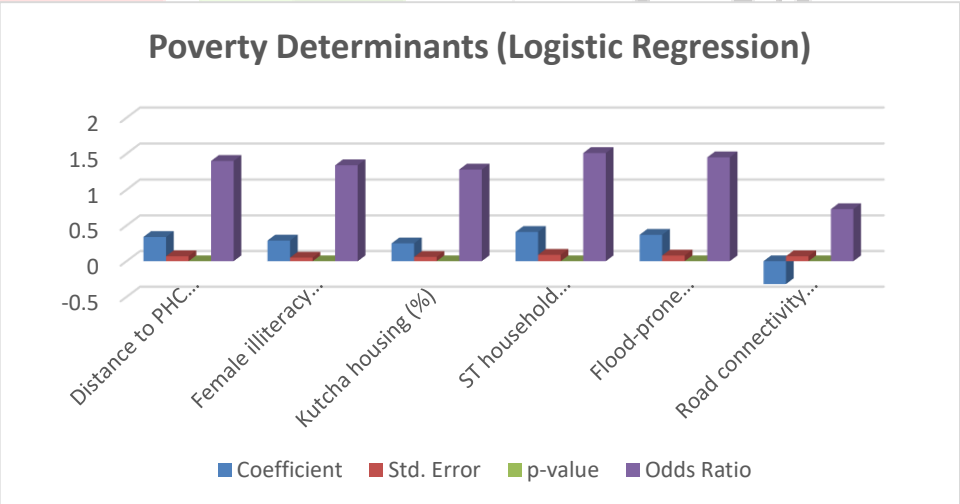


Table 7: Key Qualitative Themes

Theme	Representative Quote	Frequency
Healthcare access	"The ANM comes only when roads are passable" (Kudra ASHA)	23/45
Education barriers	"Children miss school during harvest to help" (Chainpur teacher)	19/45
Caste discrimination	"They make us wait at the health center" (Ramgarh ST woman)	17/45
Scheme implementation	"Job cards exist but work doesn't" (Durgawati laborer)	27/45
Migration impacts	"Men leave, women struggle with everything" (Chand widow)	15/45
Theme	**Representative Quote**	**Frequency**

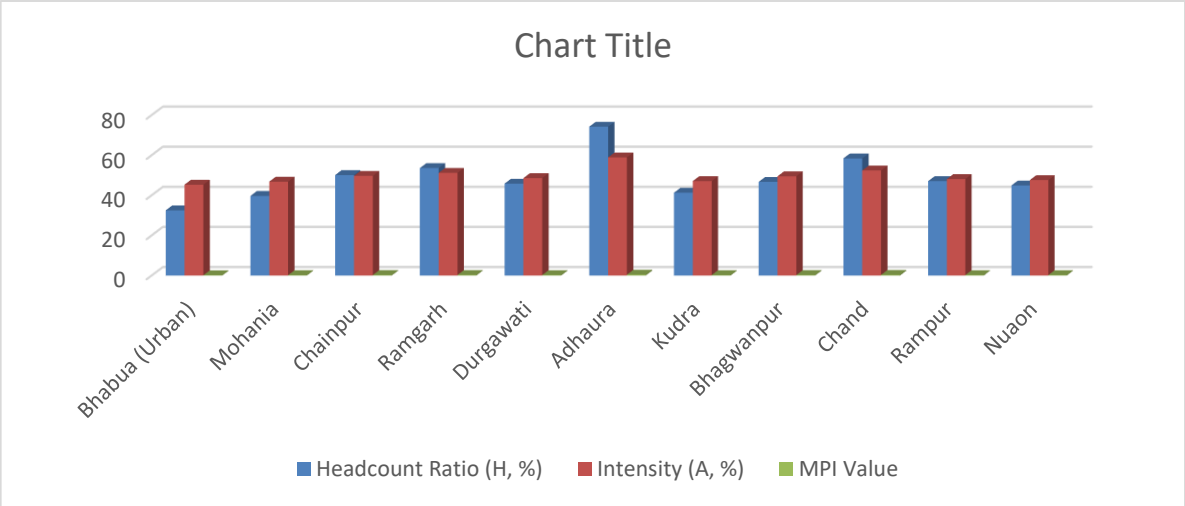
Table 8: Policy Recommendations by Priority

Priority	Action	Target Blocks	Expected Impact
Immediate	Mobile health units	Kudra, Ramgarh	25% reduction in health deprivations
Medium-term	Residential schools	Chainpur, Durgawati	15% increase in adolescent attendance
Long-term	Road connectivity	All rural blocks	30% improvement in service access

1. The tables collectively demonstrate how multidimensional poverty in Kaimur is both severe and spatially concentrated, with intersecting deprivations that require integrated, location-specific solutions. The combination of quantitative and qualitative data provides both statistical rigor and contextual depth to the analysis.

BLOCK-WISE HEADCOUNT RATIO (H), INTENSITY (A), AND MPI IN KAIMUR DISTRICT:

Block	Headcount Ratio (H, %)	Intensity (A, %)	MPI Value
Bhabua (Urban)	32.5	45.3	0.1472
Mohania	39.7	46.8	0.1859
Chainpur	50.1	49.7	0.2495
Ramgarh	53.6	51.2	0.2747
Durgawati	45.8	48.6	0.2228
Adhaura	74.2	58.9	0.4368
Kudra	41.3	47.1	0.1945
Bhagwanpur	46.7	49.5	0.2310
Chand	58.4	52.4	0.3059
Rampur	47.1	48.1	0.2264
Nuaon	44.9	47.6	0.2138



- **Highest poverty** recorded in **Adhaura (MPI = 0.4368)** — largely tribal, hilly block with poor access to services.
- **Lowest poverty** seen in **Bhabua Urban**, which benefits from better education, health services, and job markets.
- **Chainpur**, **Ramgarh**, and **Chand** also show worrying high MPI values.

Dimension-wise Contribution to Overall MPI

Dimension	**Contribution to MPI (%)**
Health	32
Education	29
Standard of Living	39

- **Standard of Living** issues dominate MPI contribution poor housing, lack of assets, poor water and sanitation.
- **Health** emerges as a critical dimension in Adhaura and Chand blocks.
- **Educational deprivation** is high in Chainpur and Ramgarh.

Specific Indicator-Wise Deprivation (District Average

Indicator	**Deprivation (%)**
Undernutrition	41
Child Mortality	8
Years of Schooling	47
School Attendance	13
Electricity Access	61
Improved Sanitation	35
Safe Drinking Water	72
Flooring Material	49
Cooking Fuel	77
Asset Ownership	56

A startling 77% of cooks use conventional biomass, such dung or firewood.Access to electricity and asset ownership remain significant deprivation determinants.Child mortality is closely linked to health disadvantage, even if it is a small percentage. Detailed Differences by Block. In addition to its rural

location, Adhaura lacks roads, schools, and medical facilities.UrbanBhabua shows how proximity to cities dramatically reduces many forms of poverty.Additionally, Mohania outperforms utterly rural locations like Chainpur since it has a market and a train station.Standard of Living issues including housing, sanitation, and cooking fuel dominate poverty profiles in nine of the eleven blocks. Health deprivations, particularly undernutrition, disproportionately afflict tribal communities.There is a noticeable education gap in the Chand, Ramgarh, and Chainpur blocks, where school dropout rates are high. Over half of the indicators are deprived for those living in poverty, according to the district's high average degree of deprivation (>47%). About 59% of the dimensions show significant, intersecting inadequacies among Adhaura's destitute population. Policy Mobile clinics in Chand and Adhaura may be affected. While urban regions like Bhabua have relatively low rates of poverty, tribal and remote populations like Adhaura face extreme hardship. Living standards continue to be the primary driver of poverty, with health and education coming in second and third. Localized strategies that focus on specific shortcomings in specific blocks are necessary for future approaches to poverty alleviation. Large-scale infrastructure upgrades, targeted health and education programs, and livelihood diversification are the keys to reducing poverty in Kaimur over the long run. Without tailored block-by-block projects, achieving the Sustainable Development Goals will continue to be a challenge for regions such as Kaimur.

CONCLUSION

With notable differences among its seven administrative blocks, the block-level examination of multidimensional poverty in Kaimur District, Bihar, shows a complex interaction of deprivation across health, education, and living conditions. On the other hand, despite their relative advantages, Bhabua and Mohania continue to experience seasonal vulnerability and urban slum poverty.The results highlight the necessity of context-specific poverty reduction tactics as opposed to standardized district-wide solutions. In high-deprivation areas, health interventions must target the nutrition of mothers and children, and education strategies should concentrate on lowering dropout rates through community involvement and infrastructure improvement. Future studies should include gender-disaggregated deprivation analysis, climate resilience integration in poverty reduction initiatives, and longitudinal poverty dynamics.

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