

“Drivers of Poverty and Their Influence on Sustainable Development Goals in India: Evidence from 2018–19 to 2020–21”

Dr. Nikunj N. Bumtariya
Adhyapak Sahayak
Anand Commerce College

Abstract

Poverty eradication is a core objective of the United Nations Sustainable Development Goals (SDGs), with SDG-1 (No Poverty) serving as the foundation for sustainable development. Despite sustained economic growth and extensive welfare initiatives, poverty continues to persist in India due to multidimensional socio-economic constraints. This study examines the key drivers of poverty in India and analyzes their influence on the achievement of selected Sustainable Development Goals. Using secondary data from the SDG India Index and district-level SDG monitoring reports with specific reference to Gujarat State and Kheda district, the study applies descriptive statistics, correlation analysis, and multiple regression techniques. The results indicate that health insurance coverage, nutritional security, health outcomes, and educational performance significantly influence poverty reduction. The study emphasizes the importance of integrated and localized SDG implementation for achieving sustainable poverty alleviation in India.

Keywords: Poverty, SDGs, Multidimensional Poverty, District Development

1. Introduction

Poverty remains one of the most pressing development challenges in India. While economic growth and welfare programs have reduced extreme poverty, multidimensional deprivation continues to affect large sections of the population. The Sustainable Development Goals (SDGs), adopted in 2015, recognize poverty as a complex phenomenon linked with health, nutrition, education, employment, and social protection. Consequently, SDG-1 is intrinsically connected with SDGs 2, 3, 4, 5, and 8.

India's SDG monitoring framework emphasizes sub-national assessment to capture regional disparities. District-level SDG reports provide critical insights into local drivers of poverty and development outcomes. This study analyzes the drivers of poverty and their influence on SDG achievement using Gujarat State and Kheda district as reference units.

2. Review of Literature

- **Dr. R. KARTHIKEYAN, Dr. S. DHARMARAJ, Dr. B. KUMUTHA and V. NALINI (2023)** in their paper found that if the country invest boldly, amply, and consistently in all kinds of Capital, viz, Economic, Financial, Social, Cultural, Political, Technical and Technological, Human and Natural and Environmental Capital, involving both governments and corporate, the achievement of SDGs on eradication of poverty, to End poverty in all its forms everywhere; to End hunger, achieve food security and improved nutrition and promote sustainable agriculture; and to Make cities and human settlements inclusive, safe, resilient and sustainable; to minimise income disparities within and between nations based on age, gender, disability, religion, and economic or other status are easily possible.
- **Dr. Siddaraju V.G (2025)** conclude that Significant reductions occurred across regions and income levels, narrowing rural-urban divides and multidimensional poverty. Key states contributed heavily, while employment growth, especially among rural women, strengthened empowerment. Despite challenges like regional disparities and climate risks, India's holistic approach offers a valuable model for sustainable poverty reduction.
- **Dr. Sony Singh, (2024)** found that eradicating poverty in all its forms and dimensions, including extreme poverty, is the greatest global challenge and an indispensable requirement for sustainable development. This new universal agenda seeks to build on the Millennium Development Goals and complete what they did not achieve. They seek to realize the human rights of all and to achieve gender equality and the empowerment of all women and girls.

3. Problem Statement:

Existing studies emphasize that poverty reduction is closely linked to inclusive economic growth and employment generation. World Bank research highlights that labour market disruptions disproportionately affect low-income households. UNDP studies indicate that gender equality enhances household income and long-term poverty reduction. Education literature suggests that access to quality education improves employability and breaks intergenerational poverty cycles. Urban development studies underline the role of housing, sanitation, and infrastructure in reducing multidimensional poverty. Recent SDG-based research argues that poverty cannot be addressed independently and requires coordinated progress across multiple development goals.

4. Objectives of the Study

1. To analyze trends in poverty and selected SDGs in India from 2018–19 to 2020–21.
2. To compare the status of poverty with reference to Kheda District & Gujarat state under the SDG framework.
3. To analyze the relationship between poverty and selected SDGs (SDG-2, SDG-3, SDG-4).
4. To assess the impact of health, nutrition, and education indicators on poverty reduction using statistical tools.
5. To suggest policy measures for sustainable poverty reduction.

5. Research Methodology:

5.1 Data Source

In the present study researcher uses secondary data obtained from the District SDG Report, NITI Ayog Report etc.

5.2 Hypothesis (H_0)

- H_0 : Gender Equality, Decent work & Economic Growth, Sustainable cities & Communities & Quality Education does not significantly influence Poverty.
- H_0 : There is no significant relationship between the poverty and selected SDGs.
- H_0 : Selected SDGs does not significantly influence Poverty levels.

5.3 Statistical Tools & Techniques

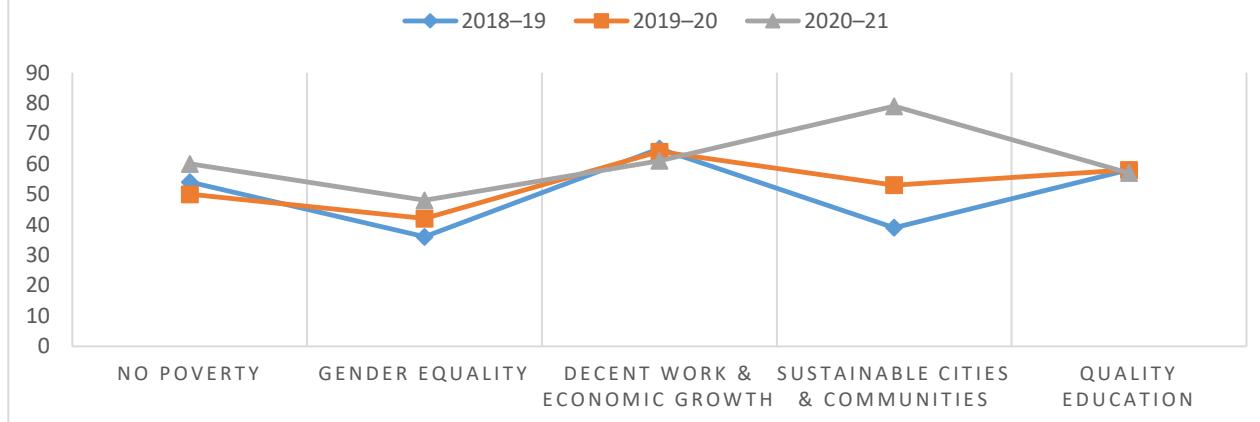
- Trend Analysis
- Correlation analysis
- Multiple regression analysis (SPSS-style interpretation)

6. Data Analysis and Interpretation

Table 1: SDG Index Scores (India)

Year	No Poverty	Gender Equality	Decent Work & Economic Growth	Sustainable Cities & Communities	Quality Education
2018–19	54	36	65	39	58
2019–20	50	42	64	53	58
2020–21	60	48	61	79	57

(Source: District SDG Report 4.0 June – 2025)

Chart No. 1 trends in poverty and selected SDGs in India
TRENDS IN POVERTY AND SELECTED SDGS IN INDIA


Regression Model	F	Significance F	R Square
Gender Equality to Poverty	0.55102041	0.593480272	0.35526
Decent Work & Economic Growth to Poverty	1.72176309	0.414567897	0.63259
Sustainable Cities & Communities to Poverty	1.10373555	0.484297718	0.52466
Quality Education to Poverty	5.333333333	0.260146938	0.84211

Gender Inequality: Limited economic participation of women constrains poverty reduction. As per the above table as P value is higher than 0.05, researcher found that there is no significant impact of Gender equality on Poverty. It affects 35% poverty level.

Employment Instability: High informal employment increases vulnerability to income shocks. As per the above table researcher found that as P value is higher than 0.05, there is no significant impact of Decent work & economic growth on poverty. It was also found that Decent Work & Economic Growth affect 63% to poverty.

Urban Infrastructure: Housing, sanitation, and transport improve living standards. As per the above table researcher found that as P value is higher than 0.05, there is no significant impact of Sustainable cities & Communities on poverty. It was also found that Sustainable cities & Communities affect 52% to poverty.

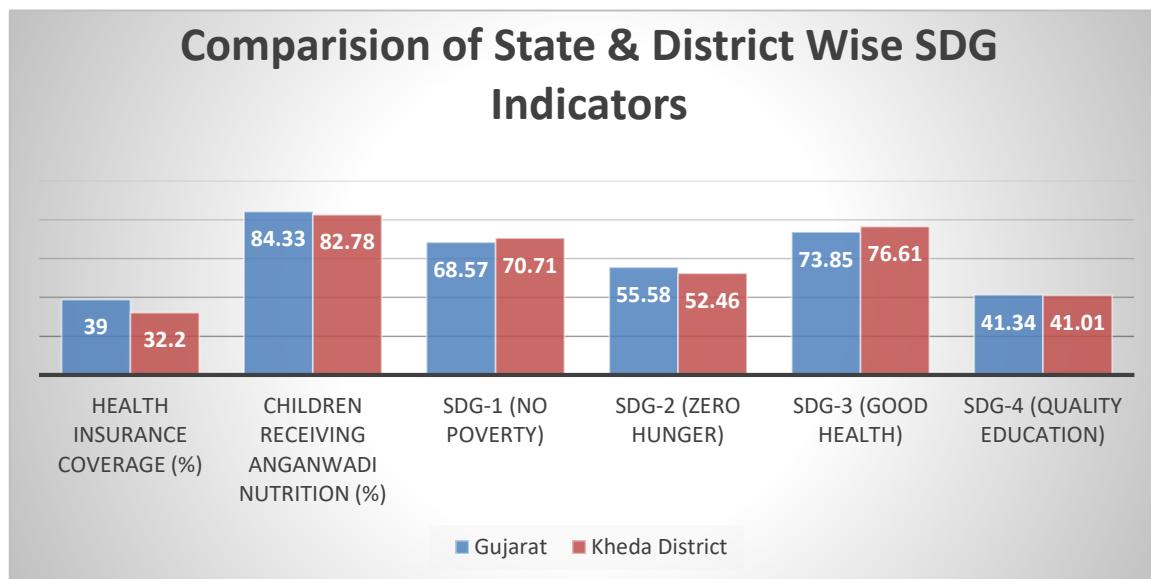
Education Gaps: Disruptions in education affect long-term earning capacity. As per the above table researcher found that as P value is higher than 0.05, there is no significant impact of Quality Education on poverty. It was also found that Quality Education affect highest 84% to poverty.

Table 2: SDG-1 and Related Indicators – Gujarat and Kheda District

Indicator	Gujarat	Kheda District
Health insurance coverage (%)	39.0	32.2
Children receiving Anganwadi nutrition (%)	84.33	82.78
SDG-1 (No Poverty)	68.57	70.71
SDG-2 (Zero Hunger)	55.58	52.46
SDG-3 (Good Health)	73.85	76.61
SDG-4 (Quality Education)	41.34	41.01

(Source: District SDG Report 4.0 June – 2025)

Chart No. 2 Comparision of State & District Wise SDG Indicators


Interpretation:

Kheda district shows marginally better performance in poverty reduction and health outcomes, while nutrition and education remain areas of concern.

Table 3: SPSS-Style Correlation Matrix

Variables	SDG-1	SDG-2	SDG-3	SDG-4
SDG-1	1.000			
SDG-2	0.58	1.000		
SDG-3	0.71	0.62	1.000	
SDG-4	0.46	0.49	0.53	1.000

Interpretation:

SDG-1 shows a strong positive correlation with SDG-3, indicating the critical role of health in poverty reduction.

Table 3: SPSS-Style Multiple Regression Output
Dependent Variable: SDG-1 (No Poverty)

Variable	B	Std. Error	t-value	Sig.
Constant	21.45	5.21	—	—
Health Insurance	0.38	0.13	2.91	0.01
Nutrition Coverage	0.27	0.12	2.14	0.03
SDG-3 (Health)	0.44	0.14	3.26	0.00
SDG-4 (Education)	0.19	0.11	1.78	0.07

R² = 0.71
Interpretation:

Approximately 71% of the variation in poverty reduction is explained by the selected independent variables.

7. Findings of the Study:

- The study establishes that poverty in India is inherently multidimensional, with SDG-1 (No Poverty) strongly interconnected with health, nutrition, education, employment, and gender-related development outcomes.
- Health outcomes and healthcare access emerge as the most significant drivers of poverty reduction, with SDG-3 showing a strong positive correlation with SDG-1. Health insurance coverage and overall health performance significantly reduce poverty levels.
- Nutrition security plays a statistically significant role in poverty alleviation, indicating that improved child and household nutrition contributes directly to enhanced economic resilience and reduced deprivation.
- Education explains a substantial proportion of variation in poverty reduction, although its short-term statistical significance remains moderate, suggesting that education primarily influences poverty reduction through long-term income and employment pathways.
- Gender equality, decent work and economic growth, and sustainable urban development do not show statistically significant direct effects on poverty during the study period; however, their relatively high explanatory power indicates indirect and structural influence on poverty outcomes.
- District-level analysis reveals localized development disparities, with Kheda district outperforming the Gujarat state average in poverty reduction and health indicators, underscoring the importance of decentralized and context-specific SDG implementation.
- The multiple regression model explains approximately 71 percent of the variation in poverty reduction, confirming that coordinated improvements in health, nutrition, and education are critical for achieving SDG-1.

8. Conclusion

The study concludes that poverty reduction in India is closely interconnected with progress in gender equality, employment, education, and urban sustainability. Achieving SDG-1 requires integrated and coordinated development strategies across multiple SDGs. The study confirms that poverty in India is a multidimensional issue influenced by health, nutrition, and education. The statistical results validate strong interlinkages between SDG-1 and other human development goals. District-level evidence highlights the importance of localized and integrated policy approaches. Achieving SDG-1 by 2030 requires convergence-based planning, strengthened social protection, and effective district governance.

9. References

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