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EDITORIAL

From The Editor Very soon, we would be welcoming the new year. Let me take this opportunity to wish all our readers the best in advance. Once again, we bring to you all another combined (July to September and October to December) Issue of the Journal. This time also, we are coming out with papers on diverse themes. We begin with a paper which analyses more recent evidence on multi-dimensional poverty with respect to Gujarat State. This is followed by one on the blue water economy a term in economics normally used to relate to the exploitation, preservation and regeneration of the marine environment. However, in this paper, the authors analyse the issues with a focus on fresh water bodies and here in the context of a state like Assam. Next comes an interesting piece on the impact of education on the political involvement of the youth in India. One other interesting paper follows and that gives a comprehensive overview of the mystery of Cryptocurrency in a contemporary scenario. And I would like to acknowledge this contribution from our former President and Editor of the ISPE Journal who took a lot of pains to revise many drafts to come up with an excellent piece. And this time we bring out a study undertaken by the ISPE in collaboration with a college in Jaysingpur town in Maharashtra on the long-term employability of graduates who passed out in 2014. The study reveals some very interesting insights that can be useful to policy makers as well as critics. In the Documentation Section, we bring some excerpts from

the Report of the Education Commission (Chairman: Professor D.S. Kothari, University Grants Commission, New Delhi) submitted to the Government of India in 1964 and which have some relevance to the study matter in the ISPE study. Once again, best wishes for the New Year from all of us ISPE.

S. Sriraman December 2025

AN ANALYSIS OF REGIONAL MULTIDIMENSIONAL POVERTY IN INDIA, WITH A SPECIAL CASE OF GUJARAT: RECENT EVIDENCES AND IMPLICATIONS

Amita Shah, Itishree Pattnaik and Hasmukh Joshi

This paper attempts to present a comprehensive analysis of multidimensional poverty across 22 major Indian states, highlighting persistent inter- and intra-state disparities despite national-level economic growth. Using data from the National Multidimensional Poverty Index (MPI), it categorizes states into high, medium, and low poverty groups based on 2015-16 estimates. While all states experienced a decline in multidimensional poverty by 2019-21, the extent of reduction varied significantly, with Goa achieving the highest reduction (78.38%) and Gujarat the lowest among medium-poverty states (37.1%).

Industrialized states like Gujarat, despite impressive economic growth, exhibit limited success in translating this growth into poverty alleviation, especially in rural areas. A detailed case study of Gujarat uncovers intra-state disparities tied to industrial concentration, limited employment generation, rural-urban migration, and the socio-economic exclusion of Scheduled Castes and Tribes.

Sectoral analysis indicates that economic diversification into manufacturing and services has not consistently resulted in poverty reduction, especially where informal employment dominates. Strong correlations were found between poverty levels and variables such as per capita NSDP, irrigation coverage, and landlessness. The paper also underscores the need for improved access to education, health, sanitation, housing, and employment in high-poverty districts.

This study advocates for context-specific, spatially nuanced poverty alleviation strategies that integrate regional development, sectoral diversification, and inclusive governance. By illuminating the gaps between growth and equity, the findings offer crucial insights for policy design and implementation in the pursuit of sustainable and inclusive development in India.

Key Words: Poverty, Gujarat, multidimensional poverty Index, Poverty across states, Poverty in India.

Amita Shah is Professor at Centre for Development Alternatives, Ahmedabad Email: amitagidr@gmail.com

Itishree Pattnaik is Assistant Professor at Gujarat Institute of Development Research, Ahmedabad. Email: itishree@gidr.ac.in

Hasmukh Joshi is Research Associate at Centre for Development Alternatives, Ahmedabad. Email: hasmukhjoshi2000@gmail.com

1. Introduction

The measurement of poverty has deepened, moving beyond simple economic measures to recognize its complex, dynamic nature. Extensive research emphasizes the interconnectedness of poverty, inequality, and development at the individual level [Mehta et al., 2018; The World Bank, 2003]. While studies have explored pathways linking economic growth, sustainable resource use, and poverty reduction [Bhaduri and Marglin, 1990, Pp. 375-393], translating these into practical, context-specific solutions remains a significant challenge, especially in India. Poverty eradication is not merely an economic concern; it is deeply intertwined with socio-political factors.

Effective poverty reduction necessitates strong political will, prioritizing equity and sustainable natural resource management. Further, climate change exacerbates food security issues, adding another layer of complexity. The UN Sustainable Development Goals (SDGs) provide a comprehensive framework for tackling poverty in all its dimensions [Technology and Action for Rural Advancement (TARA), 2015]. However, as Dasgupta and Maler [2000, Pp. 69-93] highlighted, achieving "socially necessary growth" in developing economies requires a delicate balance between political and ecological considerations, a crucial challenge for India. Moreover, understanding poverty-dynamics, including the vulnerability of those just above the poverty line is vital [Mehta et al., 2018].

This paper aims to bridge this gap by examining multidimensional poverty across various levels and extracting crucial lessons. While India has achieved notable poverty reduction, evolving socio-economic and climatic conditions, which disproportionately impact the poor, demand a reassessment of current strategies. This re-evaluation must be informed by past experiences, scale, and regional nuances.

This study examines the socio-economic factors driving poverty across 22 major Indian states, analysing changes within these factors over five-year period. It presents multidimensional poverty data (health, education, and living standards) for 2015-16 and 2019-21, using 2015-16 as the baseline for comparison due to data limitations for other indicators in more recent years. A case study of Gujarat, a high-growth state with significant pockets of poverty, provides further contextual insight. The study aims to contribute new insights for effective poverty reduction in India, fostering informed academic and policy discussions.

States are categorized based on their 2015-16 poverty rates: high (above 20%), medium (10-20%), and low (below 10%). This analysis reveals that multidimensional poverty in India remains a significant challenge, marked by substantial inter-state variation. Notably, stark disparities persist between states and, even more acutely, between rural and urban areas. Urban areas have witnessed faster poverty reduction compared to rural areas, and a concentration of poverty is observed at the sub-regional level [Dutta, 2024, Pp. 45-53].

2. Multidimensional Poverty: Recent Trends across States

2.1 Comparative Analysis of Poverty across States

Nationally, 24.85% of the population lives in multidimensional poverty, with significant state and regional variations in 2015-16. Specifically, the India-National Multidimensional Index Baseline Report [NITI Aayog, 2021], based on NFHS-4 data from 2015-16, indicates that 32.75% of the rural population and 8.81% of the urban population experience multidimensional poverty (which might be under reported as the these estimates are based on data from 2011 Census).

Analysis of multidimensional poverty across Indian states reveals a divergence between economic growth and poverty reduction. While Punjab, Jammu & Kashmir, Rajasthan, Andhra Pradesh, Himachal Pradesh, and Kerala have surpassed expectations in poverty reduction relative to their economic growth, Gujarat, Karnataka, and Chhattisgarh have lagged behind [Radhakrishna and Mishra, 2020, Pp. 372-393]. In high-growth states like Gujarat, critical questions arise: Who are the primary beneficiaries of this growth crucially, who will champion the needs of those left behind?

In 2019-20, the Multidimensional Poverty Index (MPI), based on NFHS-5 [NITI Aayog, 2023] ranged from 0.6 in Kerala to 33.8 in Bihar (Table 1). While the*extent*of poverty declined across all states, the *relative ranking* of states within the high and low-poverty categories remained largely consistent between the two periods. However, Karnataka, Andhra Pradesh, and Haryana saw their rankings worsen (within their respective categories). Gujarat ranked highest *within*the medium poverty category in both the period though the growth rate of per capita NSDP has increased significantly. This raises questions about the impact of its growth on poverty reduction. Of the 22 major states, nine categorized as "high poverty" achieved

significant poverty reductions, ranging from 34.87 per cent in Bihar to 55.8 per cent in Madhya Pradesh (Table 1). These changes are noteworthy, and their connection to major economic sectors warrants investigation. Bihar, Jharkhand, and Uttar Pradesh remain high-poverty states, representing 28 per cent of India's population and forming the nation's "poverty heartland."

The highest reductions in this category occurred in Jammu & Kashmir (61.6%) and Telangana (56.93%). Within the "high poverty" category, Madhya Pradesh saw a substantial decline (55.69%). Goa experienced the greatest poverty reduction (78.38%), not only within its category but across all states. Gujarat is an outlier in the "medium poverty" category, exhibiting the lowest poverty reduction (37.1%) between 2015-16 and 2019-21, compared to other states in this group. However, Gujarat, despite high economic growth, has not seen correspondingly significant poverty reduction. This highlights substantial regional variations in growth requiring innovative approaches within the context of climate change and a rapidly evolving geopolitical landscape.

A comparative study of changing employment structures across states shows a significant shift from the primary to the secondary sector [Jose, 2018], with Gujarat ranking highly in this transition. However, such shifts do not necessarily translate into improved quality of life or significant positive impacts on the well-being of the poor [Pattnaik, 2020, Pp. 57-83].

Notably, four of the nine high-poverty states (Madhya Pradesh, Chhattisgarh, Rajasthan, and Odisha) rely heavily on the primary sector for livelihoods. Among the medium-poverty states, five (Telangana, Karnataka, Gujarat, Maharashtra, and Haryana) have experienced higher growth in the service sector. The five low-poverty states witnessed almost equal growth rate of all three major sectors. Economic activity in Tamil Nadu, Goa, and Kerala is primarily linked to the secondary and tertiary sectors, along with higher rate of urbanisation, unlike the other two states in this category. It is worth noting that none of the five low-poverty states a significant connection to the primary sector (except Punjab).

Six states with relatively high agricultural growth have yet to achieve comparable poverty reduction in the high and medium-poverty categories, including Gujarat. As argued by Alag [2011, Pp. 44-59], what is required is not to grow grain but to create income on a wide scale.

2.2 Sectoral Growth and Poverty

Table 1 presents a comparative contribution of agriculture, industry, and service sectors. While India is largely an agrarian economy, there is considerable diversity across states. Six of the nine high-poverty states and six of the eight medium-poverty states are primarily dependent on agriculture. Among the low-poverty states, only Himachal Pradesh has this dependence. The remaining four states show more diverse economic structures. While many studies [Kumar et.al., 2011, Pp. 269-278; Bathla et.al, 2020] suggest a direct link between high economic growth and poverty reduction, this relationship has not consistently held true across India. For example, Gujarat, a highly industrialized state, experienced significant growth from 1993-94 to 2011-12, particularly between 2000-01 and 2009-10 which was 8.61 per cent [Dholakia, 2010]. But this growth has not effectively reached the poor [Shah and Pattnaik, 2021, Pp. 48-70].

Gujarat's agricultural growth, though quite high during this period, was also volatile [Pattnaik and Shah, 2015, Pp. 182-193]. Conversely, Punjab, an agrarian state, witnessed relatively high poverty reduction despite comparatively lower economic growth [Radhakrishna, 2015, Pp. 59-71]. This suggests that sustained growth in the primary sector is crucial for long-term poverty reduction [Radhakrishna and Mishra, 2020, Pp. 372-393].

The movement of the rural population from primary to secondary and tertiary sectors and from rural and urban area is a common phenomenon for economic growth. This is especially important in an agrarian economy where agricultural growth influences poverty. However, the situation varies across states. Gujarat stands out with a significant rural-urban gap (Table 4), mainly due to increasing industrialisation. Uniquely, much of Gujarat's long-term industrial growth has been linked to the rural economy (textiles, small-scale industries, and intermediate goods), with a focus on agro-products and support from the state, including numerous Special Economic Zones [Shah, 2012]. The extent at which the industrialised growth (overall) in Gujarat has taken place has not translated into significantly decline in poverty at the rural area. A large proportion of the economy of the country, on the other hand, still depends on the primary sector for livelihoods, requiring continued support for its sustainability [Bagchi et al., 2005, Pp. 3039-47]. It is important to recognise that a large proportion of workers in the primary and secondary sectors operate informally and need support through legislation and people's organizations [Sarkar, 2021, Pp. 152-167; Unni, et. al., 2001, Pp. 3915-3922].

Table 1. Percentage Share of Population, Multidimensional Poverty and Per Capita NSDP by states, Net State Value Added by Economic Activity Across the Major States 2015-16 to 2019-20.

State	per cent Share (Projected Population 2019)[1]	State-wise Share of Poor and Growth[2]				Per Capita NSDP at Constant Prices 2011 (Rs.)[3]		Net State Value Added by Economic Activity[4] Per cent Growth between 2015-16 and 2019-20		
		per cent of Poor (2015-16)	per cent of Poor (2019-21)	per cent Decline	CAGR between 2015-16 & 2019-21	2015-16	2019-20	Agriculture	Industry	Service
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
High (>20 per cent)										
Bihar	9.0	51.9	33.8	-34.87	-10.19	24064	29798	47.12	48.94	54.31
Jharkhand	2.8	47.9	28.8	-39.87	-9.05	44524	55658	50.66	50.42	54.59
Uttar Pradesh	16.9	37.7	22.9	-39.26	-11.68	36973	43061	38.62	44.18	48.91
Madhya Pradesh	6.2	46.6	20.6	-55.79	-13.34	47351	60452	104.00	46.52	57.43
Assam	2.6	31.6	19.4	-38.61	-12.2	50642	61519	29.60	34.56	49.49
Chhattisgarh	2.2	29.6	16.4	-44.59	-13.98	61433	76827	56.18	46.47	49.62
Rajasthan	5.8	29.5	15.3	-48.14	-14.66	68565	76840	59.30	22.45	58.49
Orissa	3.4	29.3	15.7	-46.42	-14.5	57806	76462	92.00	63.48	40.27
West Bengal	7.3	21.4	11.9	-44.39	-13.55	57255	69548	25.75	48.15	52.64
Medium (10 per cent to 20 per cent)										
Gujarat	5.1	18.6	11.7	-37.10	-10.86	120683	164060	59.29	64.57	57.38
Uttarakhand	0.8	17.7	9.7	-45.20	-14.10	127249	150820	43.66	26.35	48.93
Maharashtra	9.2	14.8	7.8	-47.30	-14.77	122889	145626	43.49	3.09	52.59
Telangana	2.8	13.7	5.9	-56.93	-18.27	112267	153286	124.28	43.50	61.51
Karnataka	4.9	13.1	7.6	-41.98	-12.23	116812	156478	54.37	39.52	60.48
Jammu & Kashmir	1.0	12.5	4.8	-61.60	-21.37	61388	68437	21.14	15.70	45.93
Andhra Pradesh	3.9	12.3	6.1	-50.41	-15.29	886091	10587	54.86	34.49	43.73
Haryana	2.1	12.2	7.1	-41.80	-12.17	137833	170765	38.66	42.05	49.59
Low (<10 per cent)										
Himachal Pradesh	0.5	7.6	4.9	-35.53	-10.23	112723	140999	42.23	46.55	37.84
Punjab	2.2	5.6	4.8	-14.29	-3.90	100141	118487	31.34	36.90	37.42
Tamil Nadu	5.7	4.9	2.2	-55.10	-17.55	115875	144845	30.07	43.47	51.75
Goa	0.1	3.7	0.8	-78.38	-31.25	278601	313973	26.27	26.82	42.76
Kerala	2.6	0.7	0.6	-14.29	-5.85	120387	147951	-1.73	22.06	50.63

Source: 1. National Commission on Population [2019]; 2. Calculations based on Appendix Table 3 and Table 4, p. 252, NITI Aayog [2021]; 3. National Statistics Office, Ministry of Statistics and Programme Implementation, Government of India State wise SDP as on 29.10.2024 at Constant Prices 2011.4. Based on RBI [2024], Tables 37, 49, and 57: Net State Value Added by Economic Activities [Constant Prices, 2011].

The expansion of industrialization into resource-rich, high-poverty states like Odisha and Jharkhand highlights the need to analyse the diverse regional impacts of industrial development on poverty reduction. Gujarat's significant industrial growth, fuelling labour migration from poorer states, [Srivastava et. al., 2020] exemplifies this complexity. There is an inverse relationship between economic indicators (NSDP) and poverty (Table 2). Thus, a comparative look at states categorized by poverty levels demonstrates that high-poverty states consistently exhibit lower per capita incomes than the national average, while medium and low-poverty states show the opposite relation.

Table 2. Correlation Coefficient between Poverty Levels and Economic Parameters

Economic variables	Per cent of Poor (2013-14)	Per cent of Poor (2019-21)	Statistical Significance
(1)	(2)	(3)	(4)
CAGR between 2013-14 & 2019-21		0.6060	Significant at 1% level of Significance
2013-14 AGL	0.3477		Statistically not significant
2013-14 IND	-0.0425		Statistically not significant
2013-14 SERVICES	-0.2360		Statistically not significant
2019-20 AGL		0.3751	Statistically not significant
2019-20 IND		-0.1121	Statistically not significant
2019-20 SERVICES		-0.0952	Statistically not significant
PC NSDP 2013-14	-0.8000		Strongly significant
PC NSDP 2019-20		-0.7218	Strongly significant
CAGR PC NSDP 2013-14 & 2019-20 and CAGR Poor during the corresponding period		-0.425	Marginally significant at a 5 per cent level of significance

Note: CAGR - Compound Annual Growth Rate | IND - Industry | PC NSDP - Per capita Net State Domestic Product
Source: Authors' Calculations based on Table 1

2.3 Multidimensional Poverty: Rural-Urban Dimension

A growing consensus emphasises the necessity of addressing the expanding rural-urban divide within poverty reduction strategies. Although India has witnessed substantial poverty reduction, particularly between 2005-06 and 2015-16 [Editorial Note, *EPW,* 2022],

progress in reducing disparities among high, medium, and low-poverty states remains inadequate. While the national rural-urban poverty gap hovers around 14%, substantial variations exist across different poverty levels (Table 3).

Table 3. Multidimensional Poverty and Rural-Urban Gap: 2015-16 to 2019-20*

States	Multidimensional poverty (HCR) (2015-16)				Multidimensional poverty (HCR) (2019-21)				Change in Rural & Urban gap in Poverty Levels
	Total	Rural	Urban	Rural-Urban Gap	Total	Rural	Urban	Rural-Urban Gap	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
High Poverty States (>20 per cent)									
Bihar	51.91	56.01	23.91	32.10	33.76	36.95	16.67	20.28	-11.82
Jharkhand	42.16	50.93	15.26	35.67	28.81	34.93	8.67	26.26	-9.41
Uttar Pradesh	37.79	44.32	18.07	26.25	22.93	26.35	11.57	14.78	-11.47
Madhya Pradesh	36.65	45.96	13.82	32.14	20.63	25.32	7.11	8.22	-13.92
Assam	32.67	36.16	9.97	26.19	19.35	21.41	6.88	14.53	-11.66
Chhattisgarh	29.91	35.73	10.20	25.53	16.37	19.71	4.59	15.12	-10.41
Rajasthan	29.46	35.22	11.52	23.70	15.31	18.62	4.54	14.08	-9.62
Odisha	29.35	32.66	12.33	20.33	15.68	17.72	5.42	12.30	-8.03
West Bengal	21.43	25.80	11.67	14.13	11.89	15.15	5.04	10.11	-4.02
Medium Poverty States (10 per cent to 20 per cent)									
Gujarat	18.60	27.40	6.59	20.81	11.66	17.15	3.811	3.34	-7.47
Uttarakhand	17.72	21.94	9.89	12.05	9.67	10.84	7.00	3.84	-8.21
Maharashtra	14.85	22.83	5.55	17.28	7.81	11.49	3.07	8.42	-8.86
Telangana	13.74	20.35	5.10	15.25	5.88	7.51	2.73	4.78	-10.47
Karnataka	13.16	19.01	5.07	13.94	7.58	10.33	3.22	7.11	-6.83
Andhra Pradesh	12.31	15.37	4.91	10.46	6.06	7.71	2.20	5.51	-4.95
Haryana	12.28	14.86	8.16	6.70	7.07	8.41	4.26	4.15	-2.55
Low Poverty States (<10 per cent)									
Himachal Pradesh	7.62	8.24	1.46	6.78	4.93	5.23	2.96	2.27	-4.51
Punjab	5.59	6.40	4.32	2.08	4.75	4.74	4.76	-0.02	-2.10
Tamil Nadu	4.89	7.32	2.49	4.83	2.20	2.90	1.41	1.49	-3.34
Goa	3.76	4.44	3.34	1.10	0.84	1.90	0.12	1.78	0.68
Kerala	0.71	0.95	0.43	0.52	0.55	0.76	0.32	0.44	-0.08

* Based on NITI Aayog [2021], Appendix Table 3 and Table 4, p. 252.

The disparity between rural and urban multidimensional poverty varies significantly within high-poverty states. Jharkhand exhibits the largest gap at 26.26%, followed by Bihar at 20.28%, and West Bengal at 10.11%. Among medium-poverty states, Gujarat displays the most substantial rural-urban poverty gap, registering 13.34%, considerably exceeding the gaps in Maharashtra (8.42%) and Karnataka (7.11%), thus making Gujarat a notable outlier.

Low-poverty states generally exhibit smaller rural-urban poverty gaps, with Tamil Nadu showing the highest and Punjab the lowest, excluding Himachal Pradesh. These states often have strong ties to high-value agriculture. The rural-urban poverty gap data reveals: (i) significant gaps in most high-poverty states; (ii) variability in medium-poverty states; and (iii) relatively small gaps in low-poverty states. This highlights the potential of the primary sector for rural non-farm employment [Shah and Pattnaik, 2021, Pp. 48-70].

Distress-driven rural-urban migration, while addressing basic needs, presents analytical challenges. Despite difficulties in quantifying its magnitude and impact, it is widely believed to contribute to poverty reduction in both source and destination regions [Srivastava, et. al., 2020]. Furthermore, food security programs like PMGKAY, providing free food grains to a large beneficiary base, and MSP for key agricultural products, particularly in states like Punjab and Haryana, likely contributed to poverty reduction, especially in rural areas.

Analysing rural and urban employment between 2011-12 and 2019-20 (Table 4) shows a narrowing national rural-urban employment gap. While rural employment increased by 13.7% and urban by 10.49%, most states experienced growth, excluding Haryana. However, rural employment growth varied across categories, with nine out of 22 states showing improvement, notably Madhya Pradesh (15.9%) and Chhattisgarh (20%). While employment access is vital, its quality and equity remain crucial considerations for poverty reduction.

Table 4 also displays average daily rural wage rates for male field labourers. Ten states exceed the national average, with four being low-poverty and five medium-poverty states. Notably, Rajasthan, a high-poverty state, is an exception, exhibiting higher wages. Conversely, industrialized, medium-poverty states like Gujarat and Maharashtra report wages below the national average, a perplexing contradiction. As anticipated, agricultural wage rates for field labour are lower than the

Table 4. Changing Scenario of Employment across States: Rural-Urban (2011-12 and 2019-20)

State	Rural			Urban			Avg. Daily Wage Rate Rural Field Labour Male (in Rs.) 2019-20, and Ranks[3]
	2011-12[1]	2019-20[2]	Difference	2011-12[1]	2019-20[2]	Difference	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
High Poverty States (>20 per cent)							
Bihar	34.0	42.1	8.1	28.62	36.2	7.58	297.0 (14)
Jharkhand	43.0	59.3	16.3	29.26	40.1	10.84	258.0 (17)
Uttar Pradesh	33.4	47.9	14.5	31.16	40.9	9.74	269.0 (15)
Madhya Pradesh	47.0	62.9	15.9	34.18	46.9	12.72	265.0 (16)
Assam	38.7	47.0	8.3	36.41	42.3	5.89	318.0 (11)
Chhattisgarh	51.3	71.3	20.0	35.66	47.3	11.64	234.0 (20)
Rajasthan	47.3	61.1	13.8	32.27	43.4	11.13	368.0 (8)
Odisha	43.2	56.4	13.2	34.81	45.4	10.59	307.0 (12)
West Bengal	38.7	52.8	14.1	36.69	48.1	11.41	305.0 (13)
Medium Poverty States (10 per cent to 20 per cent)							
Gujarat	44.9	60.0	15.1	35.73	49.0	13.27	251.0 (18)
Uttarakhand	41.0	56.1	15.1	32.36	41.9	9.54	373.0 (7)
Maharashtra	49.8	63.0	13.2	36.95	47.8	10.85	239.0 (19)
Telangana	-	61.3	-	-	47.3	-	393.0 (4)
Karnataka	49.4	59.9	10.5	39.66	45.9	6.24	366.0 (9)
Jammu & Kashmir	34.2	57.7	23.5	35.23	44.2	8.97	N.A.
Andhra Pradesh	51.5	61.5	10.0	36.75	47.6	10.85	381.0 (6)
Haryana	36.4	44.2	7.8	32.95	45.5	12.55	453.0 (2)
Low Poverty States (<10 per cent)							
Himachal Pradesh	53.3	75.0	21.7	39.22	57.2	17.98	358.0 (10)
Punjab	35.6	51.9	16.3	35.75	47.2	11.45	425.0 (3)
Tamil Nadu	50.7	63.0	12.3	40.16	50.4	10.24	392.0 (5)
Goa	39.1	48.9	9.8	39.89	48.7	8.81	NA
Kerala	36.3	52.8	16.5	33.12	42.7	9.58	701.0 (1)
All India	**41.8**	**55.5**	**13.7**	**35.31**	**45.8**	**10.49**	**348.0**

Note: Information for Jammu and Kashmir and Goa was not available.
The CPI across the major states for 2011 to 2020 does not show any significant difference in level and pattern (Source: MOSPI https://www.data.gov.in/catalog/state-level-consumer-price-index-ruralurban)
Source: 1. Table 1.1, (p. 1), For 2011 Central Statistics Office [2014], Table 4.1, Chapter 4 (p. 3). 2. For 2019-20 Director General of Employment [2022], Tables 4 (p. 127), and 8 (p. 135). 3. Directorate of Economics and Statistics [2021], Table 1.1, p. 1.

national average in eight of the nine poorest states. This reinforces the necessity of fostering strong connections between agricultural and non-agricultural sectors within rural economies to effectively reduce poverty across much of India.

2.4 Multidimensional Poverty: Health, Education, and Standard of Living

This section delves into the multidimensional aspects of poverty, examining their interconnectedness within state categories using 2019-20 data from 21 major states (Table 5). The analysis focuses on nutrition, health, education, and standard of living. Nutrition, a foundational element in poverty reduction [Dev, 2012], is deficient in most high-poverty states (excluding West Bengal), likely linked to poor maternal health. Notably, Gujarat and Maharashtra, despite their economic growth, exhibit lower nutrition levels compared to Uttarakhand and Telangana, suggesting potential influences of regional factors and dietary habits that require further study.

The low-poverty states demonstrate better nutritional outcomes. Within high-poverty states, nutrition-related multidimensional poverty ranges from 30% to 42%, except for West Bengal (Table 5) . Medium-poverty states range from 23% to 38%, and low-poverty states from 16% to 26%. Maternal health access is problematic across most states, with the exceptions of Odisha and West Bengal. Child and adolescent mortality rates are relatively better, though disparities exist (ranging from 0.2 in Kerala to 4.14 in Bihar).

Education remains a critical concern. Bihar reports the highest percentage of individuals not attending school (10.6%), followed by Odisha. Goa and Himachal Pradesh demonstrate the best performance, while Gujarat, Uttarakhand, and Haryana lag behind. However, school attendance data may overestimate educational achievement due to mandatory education, which does not guarantee actual learning. Expanding secondary and higher education is crucial for poverty alleviation [Tilak, 2007], especially with a focus on quality.

Sanitation access is inadequate, with over 31% of the population lacking facilities in seven high-poverty states. Compared to the 30% national average, Gujarat, Maharashtra, Telangana, and Karnataka also face significant sanitation challenges. Furthermore, 41.37% of households nationally lack adequate housing, with high-poverty states showing the worst figures, ranging from 69.4% in Chhattisgarh to 40.7% in Odisha. Housing access, particularly for low-income groups, is further complicated by repair and maintenance costs, compounded by low levels of schooling, electricity access, drinking water, and sanitation (Table 5).

Table 5. Three Major Features of Multidimensional Poverty across States - 2019-21 (High to Low)

State	Health (per cent)			Health Index	Education (per cent)		Education Index	Standard of Living (per cent)							Standard of Living Index	Multi-dimensional Poverty Index
	Nutrition	Child & Adolescent Mortality	Maternal Health		School Attendance	Years of Schooling		Cooking Fuel	Sanitation	Drinking Water	Electricity	Deprived of Housing	Assets	Bank Account		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
High Poverty States (>20 per cent)																
Bihar	42.20	4.14	37.21	27.85	10.60	22.29	16.45	63.3	50.78	1.64	3.7	65.37	20.25	3.9	29.85	74.14
Jharkhand	40.32	2.57	29.75	24.21	08.45	16.17	12.31	69.12	43.36	18.6	15.67	56.93	15.48	3.97	30.45	66.97
Uttar Pradesh	36.43	3.54	30.03	23.33	10.91	13.18	12.05	52.92	31.61	2.06	9.16	60.09	7.8	2.96	23.80	59.18
Madhya Pradesh	34.60	2.32	21.40	19.44	06.76	12.16	09.46	60.88	35.51	21.73	1.57	54.65	16.05	3.84	27.75	56.65
Assam	31.80	1.77	21.40	18.32	04.31	12.35	08.33	59.33	31.58	14.91	7.44	69.37	15.02	3.65	28.76	55.41
Chhattisgarh	35.12	2.33	20.21	19.22	05.50	10.57	08.04	66.85	23.16	8.37	1.19	55.06	10.51	4.55	24.24	51.50
Rajasthan	34.09	2.34	21.17	19.20	04.25	10.06	07.16	60.56	29.03	10.24	1.86	45.73	10.77	2.18	22.91	49.27
Odisha	30.77	1.57	14.83	15.72	03.92	13.44	08.68	65.94	39.85	13.55	3.04	40.7	12.3	2.53	25.42	49.82
West Bengal	27.28	1.06	11.43	13.26	02.12	12.87	07.50	61.25	31.91	4.97	2.5	47.17	8.13	4.44	22.91	43.66
Medium Poverty States (10 per cent to 20 per cent)																
Gujarat	38.09	1.81	12.72	17.54	05.06	07.94	06.50	34.74	26.05	5.31	2.44	23.30	11.37	4.40	15.37	39.41
Uttarakhand	23.68	1.89	20.42	15.33	04.65	07.89	06.27	44.13	21.70	6.63	0.39	24.19	9.10	2.89	15.58	37.18
Maharashtra	32.29	1.11	15.32	16.24	02.35	05.91	04.13	20.07	28.33	9.53	2.29	24.02	10.04	4.96	14.18	34.55
Telangana	28.35	1.15	13.17	14.22	01.35	14.56	07.96	7.93	24.41	3.36	0.44	20.49	8.51	2.74	9.70	31.88
Karnataka	15.21	0.73	7.58	7.84	02.94	04.25	03.60	32.23	24.30	10.37	0.76	25.36	8.03	2.93	14.85	26.29
Jammu & Kashmir	29.57	1.29	12.58	14.48	02.50	07.15	04.83	21.47	25.65	7.06	0.89	36.20	7.31	4.97	14.79	34.10
Andhra Pradesh	22.94	1.27	10.77	11.66	01.35	15.81	08.58	16.09	22.84	9.14	0.56	14.67	8.11	3.56	10.71	30.95
Haryana	26.19	1.85	16.83	14.96	04.31	05.51	04.91	43.93	15.11	6.71	0.40	23.95	5.21	3.56	14.12	33.99

(Contd.)

Table 5. Three Major Features of Multidimensional Poverty across States - 2019-21 (High to Low)

State	Health (per cent)			Health Index	Education (per cent)		Education Index	Standard of Living (per cent)							Standard of Living Index	Multi-dimensional Poverty Index
	Nutrition	Child & Adolescent Mortality	Maternal Health		School Attendance	Years of Schooling		Cooking Fuel	Sanitation	Drinking Water	Electricity	Deprived of Housing	Assets	Bank Account		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
Low Poverty States (<10 per cent)																
Himachal Pradesh	22.98	1.07	12.51	12.19	00.91	04.63	02.77	52.74	18.27	5.14	0.54	23.73	6.75	2.11	15.61	30.57
Punjab	20.80	1.32	14.24	12.12	02.77	06.72	04.75	25.33	13.69	1.84	0.34	21.96	1.60	3.88	9.81	26.67
Tamil Nadu	19.17	0.84	3.31	7.77	01.30	08.53	04.92	15.12	7.95	5.71	0.67	11.37	3.89	2.56	9.61	22.30
Goa	20.23	0.39	1.88	7.50	00.70	02.53	01.62	2.571	2.26	1.52	-	9.50	1.77	2.71	4.33	13.45
Kerala	16.44	0.20	3.30	6.65	00.25	02.49	01.37	28.12	1.27	5.40	0.41	16.67	3.05	3.22	8.31	16.32
All India	**31.52**	**2.06**	**19.17**	**17.58**	**05.27**	**11.40**	**08.34**	**43.93**	**0.13**	**7.32**	**3.27**	**41.37**	**10.16**	**3.69**	**19.98**	**45.90**

Source: Based on NITI Aayog [2023], Table 4, Pp. 327-329.

Analysis of the Multidimensional Poverty Index (MPI) reveals significant disparities across India, focusing on health, education, and standard of living.

The national health index is 17.58, with substantial regional variation. High-poverty states like Bihar exhibit a high index of 27.85, while West Bengal shows 13.26. Medium-poverty states range from Gujarat's 17.54 to Jammu & Kashmir's 7.84 and Andhra Pradesh's 11.66. Low-poverty states display a range from 12.19 6.65 in Himachal Pradesh and Kerala respectively.

The education index presents a more favourable picture, with a national average of 8.34. High-poverty states like Bihar (16.45) and Rajasthan (7.16) show the largest disparities. Medium-poverty states range from 8.58 to 4.13, with Andhra Pradesh and Maharashtra respectively. Low-poverty states show a range from 4.92 to 1.37, with Tamil Nadu and Kerala showing the lowest. Goa and Kerala stand out with particularly low education index scores.

This index, encompassing seven aspects, shows a mixed picture, potentially due to the varied nature of the indicators. Notably, indicators like drinking water, sanitation, and housing may reflect deeper deprivation than electricity, assets, and bank accounts. High-poverty states range from 22% to 30%, while medium-poverty states range from 9.7% (Telangana) to 15.6% (Uttarakhand). Himachal Pradesh, unusually, exhibits 15.61% within the high poverty category. Low-poverty states range from Goa's 4.33% to Punjab's 9.81%.

The national MPI is 45.90%, indicating a significant prevalence of multidimensional poverty, skewed towards high-poverty regions. High-poverty states average 51.50%, medium-poverty states range between 30.95% and 39.41%, and low-poverty states between 13.45% and 30.57%. Notably, 31.52% of Indians are deprived of nutrition, and 41.37% lack adequate housing. Achieving significant reductions in these areas remains a challenge, particularly given the slow progress in many states. The effectiveness of short-term interventions like MGNREGA and direct cash transfers in addressing these deep-rooted issues requires further evaluation.

3. The Scenario in a High Growth Economy - A Case of Gujarat

Gujarat's recent economic growth, while impressive, has generated certain unresolved challenges. As evidenced by [Bagchi, et. al., 2005], Gujarat was a leading industrialized, urbanized, and affluent state by 2001. However, this industrial expansion has not translated

into commensurate benefits for the primary sector, reflected by the 2011 workforce participation data. While rural labour force participation rates in Gujarat exceed the national average for both males and females (61.2% vs. 57.4%), urban rates are comparable to the national figure (approximately 49%). Notably, urban female workforce participation in Gujarat is significantly lower than the national average (19.1% vs. 23.2%), suggesting that Gujarat's Urban-centric growth model may provide comparatively fewer opportunities for women in urban areas than in rural settings.

Sahoo and Pathak [2022] demonstrate that Tamil Nadu outperformed Gujarat in poverty reduction, particularly between 1993-94 and 2011-12. This success is attributed to effective anti-poverty programs and substantial welfare spending, resulting in a faster poverty reduction rate than the national average during the post-reform period. Decomposition analysis further confirms the higher efficacy of Tamil Nadu's poverty reduction measures. This underscores the necessity of political and institutional commitment, beyond mere financial allocation, for effective program implementation. Furthermore, concerns exist regarding the equitable distribution of poverty reduction within Gujarat. For instance, [Kundu 2000, Pp. 8-32] highlighted that Ahmedabad's rapid economic growth has failed to benefit its immediate hinterland. Additionally, Gujarat exhibits a comparatively wide rural-urban poverty gap compared to other middle-to-low poverty states. Moreover, social discrimination against Scheduled Castes and Scheduled Tribes (SC/ST) remains a critical factor impacting the state's high-growth narrative [Shah, 2005].

3.1 Industrialisation and Poverty in Gujarat

Gujarat has solidified its position as a manufacturing hub. According to the Annual Survey of Unincorporated Sector Enterprises [NSSO, 2022-23], Gujarat ranks second in hired worker establishment to annual gross value added per establishment in manufacturing, while leading in own-account establishments within the same sector. The manufacturing sector is concentrated in the 'Golden' and 'Silver' Corridors of central and western Gujarat, respectively.

Despite its robust growth, Gujarat faces significant challenges in addressing multidimensional poverty. As observed by Macwan and Zala [2022, Pp. 7-14], a negative correlation exists between agricultural growth and poverty, aligning with Bagchi et al., [2005]. The state's

high-growth model appears to strain natural resource sustainability and exacerbate inequality. Agriculture and mining account for over 54% of employment, manufacturing, construction, and retail trade contribute roughly 28%, largely concentrated in the rural and urban non-farm economy. Notably, Shah and Pattnaik [2014] found that districts with greater industrial presence or natural resource endowments generated more rural non-farm employment in industry during 2011-12.

Furthermore, Gujarat's economic growth has attracted substantial interstate migration, primarily from Rajasthan, Uttar Pradesh, Odisha, and Madhya Pradesh, providing short- to medium-term labour. While these migrant workers significantly contribute to the state's economy, their role is often overlooked in discussions of Gujarat's growth trajectory. This necessitates a detailed examination of evolving interstate short-term migration patterns. Many migrant workers endure substandard living conditions in urban areas [Singh and Tripathi, 2022, Pp. 344-352]. Given migration's dynamic contribution to economic growth, a thorough analysis of its impact on poverty reduction is essential.

3.2 Intra-state Multidimensional Poverty in Gujarat

This section analyses multidimensional poverty across Gujarat's districts. Using the similar criteria of the national level, the 26 districts in Gujarat is categories as: 13 as high poverty, 9 as medium, and Ahmedabad, Rajkot, Surat (industrialized), and Porbandar as low poverty districts as per 2015-16 base (Table 6).

While multidimensional poverty has decreased across Gujarat, significant regional disparities persist. Percentage change in poverty vary considerably, from 6.47% in Ahmedabad 58.56 in Navsari in medium poverty category and 69.26% in Vadodara, among high poverty category. Within each poverty category, substantial variation is evident with respect to change in poverty, showing distinct regional characteristics. This is often correlated with industrial expansion in specific areas. The industrial focus of Ahmedabad, Rajkot, and Surat, the three low-poverty districts, is clear. Gujarat's industrial sector has regional specificity with limited employment generation [Das, 2019]. For example heavy industries were established in Tapi, Navsari and Valsad even before 1950s, but still these districts fall under the high and medium poverty category (this also linked with the caste distribution, where a major share of tribal are in these districts).

Table 6. GDP and Multidimensional Poverty across Districts

Districts	Multidimensional Poverty*		Percentage Change
	2015-16	2019-21	
(1)	(2)	(3)	(4)
High Poverty (>20 percent)			
The Dang	57.33	26.61	53.58
Dahod	55.05	38.27	30.48
Panchmahal	41.62	18.11	56.49
Narmada	37.11	22.62	39.05
Banaskantha	31.24	23.83	23.72
Kachchh	28.60	10.52	63.22
Tapi	27.76	16.03	42.26
Kheda	25.50	17.06	33.10
Surendranagar	25.16	11.45	54.49
Sabarkantha	24.85	19.96	19.68
Vadodara	21.24	6.53	69.26
Patan	21.19	12.93	38.98
Valsad	20.16	8.11	59.77
Medium Poverty (10 per cent to 20 percent)			
Bhavnagar	17.90	12.12	32.29
Bharuch	17.85	12.28	31.20
Gandhinagar	16.57	5.66	65.84
Anand	14.81	10.47	29.30
Jamnagar	13.18	7.16	45.68
Amreli	11.94	7.47	37.44
Navsari	11.68	4.84	58.56
Mehsana	10.51	9.11	13.32
Junagadh	10.28	7.02	31.71
Low Poverty (<10 percent)			
Surat	9.22	5.29	42.62
Porbandar	8.94	4.07	54.47
Rajkot	8.74	3.98	54.46
Ahmedabad	5.87	5.49	6.47
Gujarat	18.60	11.66	37.31

Source: * Multidimensional Poverty Index: Progress Review 2023.

Gujarat's industrialization has extended into arid and semi-arid regions, particularly the 'Silver Corridor' encompassing Kachchh and Jamnagar. While this expansion has fostered urban economic growth and employment, the resulting industrialization-driven growth exhibits significant regional specificity and has not effectively mitigated rural-urban poverty gaps.

A clear inverse relationship exists between urbanization and poverty levels across Gujarat's districts. High-poverty districts exhibit significantly lower urbanization rates and a predominantly rural population (up to 80%, excluding Kheda). While medium-poverty districts generally show low urbanization (47% to 93%), Surat and Vadodara are notable exceptions, displaying urbanization levels comparable to low-poverty districts. These findings reinforce the positive correlation between urbanization and decline in poverty among districts. Consequently, effective poverty reduction strategies in Gujarat must address these spatial disparities.

Furthermore, the social dimension presents a significant challenge. Scheduled Castes (SC) and Scheduled Tribes (ST) comprise 21.5% of Gujarat's population. Notably, all high-poverty districts, except Kheda, have SC/ST populations exceeding 20%. While Chhota Udaipur, Navsari, and Surat, despite high SC/ST populations, fall within the medium-poverty category, Ahmedabad and Rajkot, with low poverty, also have low SC/ST populations. This indicates a critical need to address the persistent exclusion of these marginalised communities from the state's high-growth narrative.

Table 7 demonstrates a negative correlation (-0.5132) between urbanization and SC/ST populations across the districts in Gujarat, emphasizing the need for inclusive urbanization, especially in medium-poverty districts. Further research is needed to understand the complex dynamics of urbanization in relation to poverty across Gujarat.

Table 8 examines the connection between land access, land use, landlessness, and district poverty in Gujarat. A significant 56.32% of households are landless in rural area. Notably, 13 districts, distributed across high, medium, and low poverty levels, report over 40% landless households in rural areas. Furthermore, 22 districts have over 50% of households possessing less than two hectares of land. Land ownership shows a statistically significant correlation with poverty ($p=0.0341$).

Table 7. Rural-Urban Gap by Social Groups across Districts (2011)

District	Per cent	Poverty Level 2015-16			Per cent Population*				
	Share Population	Total	Rural	Urban	Rural	Urban	SC	ST	SC + ST
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
High Poverty (> 20 per cent)									
Banaskantha	5.16	31.24	34.41	9.33	86.70	13.30	10.5	9.1 1	9.6
The Dangs	0.38	57.33	60.97	19.54	89.20	10.81	0.4	94.6	95
Dahod	3.52	55.05	59.50	14.92	91.00	9.01	1.9	74.3	76.2
Kachchh	3.46	28.60	31.75	21.32	65.20	34.82	12.4	1.2	13.6
Kheda	3.81	25.50	26.02	23.88	77.10	22.77	4.8	1.8	6.6
Narmada	0.98	37.11	40.14	8.15	89.50	10.50	1.5	81.6	83.1
Panchmahal	3.96	41.62	48.39	2.27	86.00	14.00	4.1	22.8	26.9
Patan	2.22	21.19	23.22	13.77	79.00	21.00	9.2	1.00	10.2
Sabarkantha	4.02	24.85	28.36	6.06	83.02	16.98	9.00	23.6	32.6
Surendranagar	2.91	25.16	34.64	0.75	71.71	28.29	10.7	1.4	12.1
Tapi	1.34	27.76	29.61	9.33	90.20	9.85	1.0	84.2	85.2
Vadodara	6.89	21.24	34.44	8.51	50.41	49.59	6.3	9.5	15.8
Valsad	2.82	20.16	27.42	7.82	62.70	37.30	2.2	52.9	55.1
Medium Poverty (10 to 20 per cent)									
Amreli	2.51	11.94	13.12	8.62	74.3	25.53	8.8	0.5	9.3
Anand	3.46	14.81	18.77	5.24	69.5	30.34	5.0	1.2	6.2
Bharuch	2.57	17.85	23.03	8.67	66.2	33.85	4.0	31.5	35.5
Bhavnagar	4.77	17.92	6.12	5.51	58.2	41.05	5.3	0.3	5.6
Gandhinagar	2.30	16.57	15.85	17.35	56.8	43.2	7.8	1.3	9.1
Jamnagar	3.57	13.18	13.97	12.34	47.5	52.5	8.7	1.0	9.7
Junagadh	4.54	10.28	13.34	4.23	62.4	33.04	10.0	2.5	12.5
Mehsana	3.37	10.51	13.64	1.95	74.8	25.27	8.0	0.5	8.5
Navsari	2.20	11.68	15.07	4.16	69.2	30.8	2.7	48.1	50.8
Low Poverty (< 10.28 per cent)									
Ahmedabad	11.94	5.87	22.84	2.10	15.96	84.04	10.6	1.3	11.9
Porbandar	0.97	8.94	12.59	4.86	51.1	48.9	8.9	2.2	11.1
Rajkot	6.29	8.74	10.69	7.45	37.8	58.19	7.8	0.6	8.4
Surat	10.06	9.22	26.60	4.62	20.3	79.74	2.6	14.1	16.7
Gujarat (60439692)	100	18.60	27.40	6.59	57.4	42.6	6.7	14.8	21.5[i1]

* Source: District wise figures at a glance as per Census - Gujarat: Government of India, Open Government Data (OGD) Platform India.

While irrigation is crucial for poverty reduction, equitable access and sustainable use pose challenges, particularly in arid and semi-arid regions. Currently, 52% of Gujarat's agricultural land is irrigated. Canal irrigation, prevalent in southern and central Gujarat, directly influences poverty reduction [Shah and Singh, 2004, Pp. 67-177]. However, groundwater, the primary source in Saurashtra and parts of central Gujarat, creates inequality due to individual household costs compared to state-subsidized canal irrigation.

By 2022-23, canal irrigation accounted for approximately 21% of total irrigation, concentrated in medium and low-poverty districts Season And Crop Report, 2023). Wells and tube wells, though more widespread, raise concerns about reliability, timing, and overuse. Irrigation distribution across districts (Table 8) is varied, especially in high-poverty areas. Five of twelve high-poverty districts exceed the state's average irrigation coverage (52%), while Dang and Dahod (tribal regions) have less than 20%. Six of ten medium-poverty districts have higher irrigation coverage, and only Ahmedabad (low-poverty) has low irrigation. This suggests a positive correlation between water access and poverty reduction.

Agricultural land use in Gujarat exhibits significant diversity, with underutilization and low productivity prevalent due to factors like urbanization and soil degradation. Districts with a higher proportion of uncultivated and wasteland correlate with elevated poverty rates. Notably, irrigation demonstrates a strong negative correlation with poverty (-0.5076), suggesting that increased irrigation-driven land productivity effectively reduces poverty.

Conversely, forest cover shows a strong positive correlation with multidimensional poverty (0.7239). High-poverty districts (with the exception of Kheda) generally exhibit substantial forest coverage (12-25%), while medium-poverty districts show less, and low-poverty districts show minimal forest cover. This strong link underscores the importance of integrating impoverished communities into forest management strategies to achieve both ecological and economic gains [Lele and Menon, 2014].

Interestingly, no significant correlation was observed between poverty levels and landholding size across the districts.

Table 8. Land, Water and Irrigation across District in Rural Area

Districts	Multidi-mensional Poverty 2015-16	Per cent of Landless Households	Landholding Pattern (in %)		Per cent of Net Irrigated Area to Net Area Sown 2015	Per cent of Culturable Waste Land 2015-16	Per cent Of Forest land 2015-16
			Marginal & Small < 1.99 Ha.	Semi Medium + Medium + Large			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
High Poverty (>20 percent)							
Banaskantha	31.24	29.95	58.90	41.00	58.70	1.30	14.90
The Dangs	57.33	28.85	72.60	27.50	17.33	3.30	57.30
Dahod	55.05	4.55	61.70	38.30	11.79	1.20	25.20
Kachchh	28.60	47.24	42.80	57.10	41.56	33.60	11.70
Kheda	25.50	40.97	85.70	14.30	77.91	1.50	1.20
Narmada	37.11	55.47	65.30	34.70	40.01	1.90	37.50
Panchmahal	41.62	16.26	76.90	23.10	33.47	4.20	20.90
Patan	21.19	46.82	63.10	36.90	66.94	1.90	-
Sabarkantha	24.85	24.83	76.90	23.00	73.69	3.90	16.40
Surendranagar	25.16	44.65	46.30	53.60	50.28	3.20	4.90
Tapi	27.76	50.53	66.40	33.70	42.45	1.20	27.20
Vadodara	21.24	37.57	75.30	24.70	87.96	2.10	3.50
Valsad	20.16	24.43	83.10	16.80	62.70	0.60	30.40
Medium Poverty (10 to 20 per cent)							
Amreli	11.94	40.45	60.20	39.80	30.65	2.90	5.00
Anand	14.81	48.45	89.50	10.60	99.95	2.50	-
Bharuch	17.85	49.82	66.30	33.60	34.52	6.70	0.40
Bhavnagar	17.90	39.46	67.40	32.50	36.83	6.30	2.70
Gandhinagar	16.57	42.77	84.20	15.90	73.84	2.80	1.00
Jamnagar	13.18	33.52	59.00	41.00	63.24	5.20	7.80
Junagadh	10.28	40.18	68.00	32.10	43.14	1.40	13.90
Mehsana	10.51	39.41	83.60	16.40	71.52	1.20	2.00
Navsari	11.68	35.52	28.20	71.80	72.73	8.10	13.10
Low Poverty (< 10.28 per cent)							
Ahmedabad	5.87	52.40	58.20	41.90	45.99	5.20	1.90
Porbandar	8.94	39.34	67.80	32.10	52.46	4.50	10.60
Rajkot	8.74	38.11	66.60	33.50	52.79	2.60	2.90
Surat	9.22	43.61	82.80	17.10	58.21	3.90	12.60

Source: Government of Gujarat, Agriculture Census 2015-16, Part I, Gujarat. Census-2011 and Season and Crop Report 2015-16 & 2020.

3.4 Multidimensional Poverty: Health, Education, and Standard of Living in Gujarat

This section delves into a thorough examination of the multifaceted nature of poverty within the state of Gujarat, with a specific focus on the critical dimensions of health, education, and the prevailing standard of living. This analysis is grounded in the baseline data provided by the 2015 National Family Health Survey-4 report. A detailed presentation of district-level indicators, which illustrate the various dimensions of poverty across Gujarat, is contained within Table 9.

A striking observation is the significant degree of variability that exists across the different districts. To quantify this variability, we calculated the coefficient of variation across the districts Indicators such as child mortality and maternal health demonstrate substantial variations, which may serve to reflect the underlying distribution of poverty throughout the region. A similar trend of variability can be observed in the domain of education. The variations become particularly pronounced in the case of infrastructural indicators, including access to electricity, drinking water, conditions of deprived housing, and the possession of assets.

These infrastructural variations, to a considerable extent, reflect the developmental status of the respective districts. Indeed, it is evident that districts with higher levels of industrialisation appear to be better endowed in terms of infrastructure. Industrialisation and infrastructural development should happen simultaneously, in absence of which industrial development may not automatically translate into poverty reduction. The table reveals that the deprivation of electricity is significantly higher in districts characterized by high poverty levels compared to those with low poverty levels. A parallel trend is evident in cases of housing deprivation, sanitation, asset ownership, and access to cooking fuel, among other indicators. This observed dichotomy reflects the characteristic growth pattern of Gujarat. However, the nuanced details of deprivation across the seven aspects require further detailed examination.

The educational landscape closely mirrors the observed patterns of health deprivation in Dang and Dahod. Medium-poverty districts exhibit varying levels of educational deprivation, ranging from 4% to 20%, with Kachchh displaying the highest levels, potentially attributable to water scarcity.

Table 9. Deprivation in Gujarat in Terms of Health, Education, and Standard of Living by Level of Deprivation across Districts

Districts	Level of Deprivation Year 2015-16						
	Health			Index of Health	Education		Index of Education
	Nutrition	Child & Adolescent Mortality	Maternal Health		School Attendance	Years of Schooling	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
High Poverty (>20 percent)							
Banaskantha	52.03	3.39	22.94	**26.12**	13.75	13.68	**13.72**
The Dangs	62.81	3.10	32.42	**32.78**	9.19	20.73	**14.96**
Dahod	59.23	5.41	27.11	**30.58**	12.73	17.43	**15.08**
Kachchh	41.22	3.42	20.21	**21.62**	17.74	22.24	**19.99**
Kheda	52.28	3.26	21.72	**25.75**	6.63	6.18	**6.41**
Narmada	59.28	2.28	24.09	**28.55**	6.29	11.40	**8.85**
Panchmahal	59.69	1.79	25.56	**29.01**	7.48	7.23	**7.36**
Patan	48.09	3.00	16.84	**22.64**	6.97	13.29	**10.13**
Sabarkantha	51.21	+1.98	19.17	**24.12**	5.53	7.55	**6.54**
Surendranagar	43.26	2.22	18.91	**21.46**	10.01	17.65	**13.83**
Tapi	56.67	0.98	12.04	**23.23**	3.88	11.34	**7.61**
Vadodara	41.36	2.58	20.36	**21.43**	7.81	13.00	**10.41**
Valsad	38.42	1.87	16.08	**18.79**	5.17	10.81	**7.99**
Medium Poverty (10 to 20 per cent)							
Amreli	28.89	1.24	15.67	**15.27**	4.35	10.22	**7.29**
Anand	51.22	3.83	8.70	**21.25**	4.76	5.12	**4.94**
Bharuch	44.42	3.32	9.52	**19.09**	6.11	10.26	**8.19**
Bhavnagar	38.41	1.58	18.41	**19.47**	4.72	12.25	**8.49**
Gandhinagar	44.37	2.30	6.81	**17.83**	6.65	11.12	**8.89**
Jamnagar	32.27	1.97	10.24	**14.83**	8.55	13.29	**10.92**
Junagadh	28.80	2.07	9.97	**13.61**	6.20	8.93	**7.57**
Mehsana	41.27	1.63	12.44	**18.45**	3.87	4.49	**4.18**
Navsari	42.13	1.27	2.87	**15.42**	2.27	6.40	**4.34**
Low Poverty (< 10.28 per cent)							
Ahmedabad	32.17	2.49	2.67	**12.44**	3.30	5.63	**4.47**
Porbandar	29.12	0.73	15.97	**15.27**	2.47	9.56	**6.02**
Rajkot	31.46	1.32	11.33	**14.70**	5.72	8.04	**6.88**
Surat	34.12	0.51	15.16	**16.60**	5.31	6.34	**5.83**
Coefficient of variation (%)	23.59	46.89	44.94	**26.22**	50.94	43.16	**42.91**
Gujarat	**41.37**	**2.21**	**14.77**	**19.52**	**9.83**	**6.65**	**8.24**

(Contd.)

Table 9. ***(concld.)***

Districts	Level of Deprivation Year 2015-16							
	Cooking Fuel	Sanitation	Drinking Water	Electricity	Deprived of Housing	Assets	Bank Account	Standard of Living Index
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
High Poverty (> 20.percent)								
Banaskantha	72.17	60.86	7.80	11.38	24.76	28.73	7.13	**30.40**
The Dangs	92.21	81.54	49.49	11.71	89.59	35.73	18.30	**54.08**
Dahod	86.60	80.12	36.21	20.51	71.46	36.11	14.92	**49.42**
Kachchh	62.20	41.38	23.99	4.32	7.78	20.23	14.09	**24.86**
Kheda	72.30	48.00	8.02	3.94	39.75	19.19	18.53	**29.96**
Narmada	86.43	66.22	6.25	6.39	67.01	27.42	5.78	**37.93**
Panchmahal	78.76	64.61	24.17	13.55	62.47	29.80	18.24	**41.66**
Patan	68.12	44.34	6.64	5.89	23.43	20.27	8.01	**25.24**
Sabarkantha	71.71	55.09	11.23	4.39	31.39	23.04	7.73	**29.23**
Surendranagar	64.55	53.69	23.12	4.02	17.95	14.13	9.25	**26.67**
Tapi	76.69	60.04	15.97	6.31	74.86	18.34	9.76	**37.42**
Vadodara	46.94	39.62	9.05	2.34	26.73	14.17	9.80	**21.24**
Medium Poverty (10 to 20 per cent)								
Amreli	49.07	24.72	6.41	0.85	25.92	5.90	8.57	**17.35**
Anand	59.83	33.69	4.65	2.24	23.12	10.55	8.99	**20.44**
Bharuch	49.52	31.07	21.96	2.74	28.75	12.72	8.88	**22.23**
Bhavnagar	58.38	37.90	8.66	0.68	34.28	7.70	12.38	**22.85**
Gandhinagar	48.77	39.45	4.81	4.94	17.04	11.62	7.52	**19.16**
Jamnagar	40.16	32.30	13.29	1.81	6.59	7.98	10.16	**16.04**
Junagadh	54.12	25.82	5.66	0.61	14.02	7.18	4.50	**15.99**
Mehsana	43.55	34.23	8.81	2.71	13.73	8.00	1.61	**16.09**
Navsari	47.13	30.42	34.64	1.22	40.11	7.02	5.02	**23.65**
Valsad	43.45	39.31	37.31	1.22	35.77	15.12	13.69	**26.55**
Low Poverty (< 10.28 per cent)								
Ahmedabad	14.47	10.49	4.86	0.73	6.04	6.21	4.35	**6.74**
Porbandar	49.92	25.59	18.69	0.52	9.20	7.00	7.93	**16.98**
Rajkot	34.64	28.10	11.40	1.59	7.55	4.57	7.09	**13.56**
Surat	15.33	21.43	6.63	1.30	12.85	8.17	11.27	**11.00**
Coefficient of variation (%)	34.75	42.12	77.59	106.55	75.06	60.87	45.23	**44.95**
Gujarat	**25.10**	**26.00**	**12.61**	**2.40**	**23.30**	**13.60**	**4.40**	**15.34**

Source: NITI Aayog [2021], op. cit., Table 2, p. 253; and, Table 11, Pp. 264-265.

The complex interrelationships between health, education, and standard of living, and their regional impacts on poverty, necessitate a more in-depth investigation. It is particularly relevant in Gujarat, where historical industrialisation linkages to the primary sector have varied in scale and location [Awasthi and Kashyap, 2010, Pp. 25-53], potentially obscuring the impact on employment generation. Agriculture and allied sectors, including mining, employ 53.6% of the workforce, manufacturing, construction, and retail account only for 28.1%.

The concentration of industrial activity aligns with the concentration of non-farm jobs in Ahmedabad, Surat, Vadodara, Rajkot, and Jamnagar. These districts host 34.18 per cent of Gujarat's population. Gujarat's past focus on capital goods has created strong forward linkages. However, a deeper understanding of the economy's multiplier effect, its changes over time, and its impact on distribution is vital, especially in today's changing economy, as noted by [Awasthi and Shah 2021].

Gujarat's industrialisation shows better results than other states, as observed by [Basu and Kashyap 2000; Mehta 2018]. Yet, current analysis suggests that Gujarat's growth and poverty issues require moving beyond just industrial growth. A broader view, considering regional differences, may be needed for sustainable development in both India and Gujarat.

4. Pathways for Poverty Reduction: Some Learnings

Despite overall poverty reduction, the relative disparity between high, medium, and low-poverty regions has persisted across states. While the primary sector remains a significant driver of poverty reduction, its impact varies considerably. Four high-poverty states (Madhya Pradesh, Chhattisgarh, Rajasthan, and Odisha) exhibit strong primary sector linkages, whereas five others demonstrate greater reliance on services, highlighting regional nuances. This raises the question of whether high-growth states like Gujarat should de-emphasize the primary sector; however, Gujarat's experience suggests otherwise.

The relationship between wage rates and poverty remains ambiguous. While four low-poverty states report higher wages, Rajasthan (high-poverty) and Haryana (medium-poverty) also exceed the national average. Conversely, Maharashtra and Gujarat, despite their high-growth and wealth, exhibit relatively lower wage rates (Rs. 239 and Rs. 236), placing them within the medium-poverty category.

The widening rural-urban poverty gap necessitates urgent attention within poverty reduction strategies. Limited progress has been achieved in bridging this divide across states. With a national rural-urban poverty gap of approximately 14%, seven of nine high-poverty states report significantly larger gaps.

Gujarat's sustained high-growth and economic resilience are well-documented. While historical factors have contributed to its dynamic trajectory, challenges such as poverty reduction, geographical inter-linkages (particularly the rural-urban gap), and natural resource sustainability persist. District-level analysis confirms these concerns, with 12 of 26 districts still classified as high-poverty. These districts, characterized by strong ties to natural resources and socially marginalised groups, remain inadequately integrated into the state's high-growth process, as evidenced by workforce participation and wage rates.

5. Where Do We Go?

Notwithstanding the potential decline of extreme poverty, as posited by [Panagariya, 2024, p. 10], the pursuit of poverty reduction is encountering increasingly formidable obstacles, particularly in light of evolving Agro-climatic and geopolitical contexts. This is further compounded by the escalating inter- and intra-regional economic heterogeneities, as reflected in multidimensional poverty metrics. While India's economic expansion is acknowledged, the absence of widespread gains for the lower echelon of the population continues to impede equitable outcomes. The significant disparities observed across multidimensional poverty indicators, both at the interstate and intra-state levels within Gujarat, necessitate a paradigm shift away from a monolithic approach towards the implementation of granular, region-specific interventions.

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