



Unveiling India's Economic Giants: Analyzing State-Wise GDP Growth Trends

Tushar Gattani, Sunkara Kavya, Simran Singh, Dr. Manali Agrawal

MBA, MBA, MBA, Assistant Professor

NSB Academy, Bangalore, India

ABSTRACT

Diverse state-wise contributions to its Gross Domestic Product (GDP) shape India's economic landscape. This study analyzes the historical GDP data of Indian states over the past 13 years to identify the highest-contributing states and examine trends in their economic performance. By leveraging state-wise GDP data, this research explores regional disparities, growth patterns, and the evolving role of key states in India's economic development. The study employs comparative analysis to highlight the leading contributors to the national GDP and investigates the factors driving their economic dominance by applying descriptive analytical tools. The findings provide insights into economic concentration, sectoral contributions, and the implications for policymaking to foster balanced regional growth. Further, a trend analysis will be conducted for the top three GDP-contributing states to assess their growth trajectory and economic stability. The findings provide insights into regional growth patterns, aiding policymakers in strategic economic planning and resource allocation.

Keywords: GDP, Descriptive Analysis, Trend Analysis, Economic Growth

1. INTRODUCTION

India, recognized as one of the fastest-growing economies globally, is distinguished by the varied contributions of its states to the national GDP. Each state significantly influences India's economic framework through its industrial production, agricultural output, and growth in the service sector. Nonetheless, the pace of economic growth is not consistent across different regions, resulting in disparities in development and the distribution of resources. Policymakers, economists, and investors need to comprehend these regional economic differences to enhance economic planning, resource distribution, and growth strategies.

This study undertakes a comprehensive analysis of state-specific GDP trajectories spanning from the fiscal year 2003-04 to 2025-26, with a particular focus on delineating the principal drivers of the national GDP, scrutinizing growth trajectories, and assessing the economic resilience of diverse regions, encompassing North, South, East, West, and Central India. By selecting the state with the highest contribution from each

geographical regions and examining its historical GDP data, this research endeavours to elucidate patterns of economic advancement, stagnation, and variability across states and region. Furthermore, it presents projections for GDP in the years 2024, 2025, and 2026, whilst also identifying the leading two states in terms of GDP within their respective regional contexts.

State GDP, academically designated as Gross State Domestic Product (GSDP), quantifies the aggregate economic output of a state within a specified temporal framework. It functions as a crucial economic metric for evaluating a state's economic efficacy and is comparable to Gross Domestic Product (GDP) at the national echelon, albeit specifically tailored to individual states.

2. LITERATURE REVIEW

This paper, however, examines the relative economic performance of states over the past six and a half decades. We utilize two key economic indicators for our analysis: Share in National GDP, to evaluate each state's economic significance, and Relative Per Capita Income, to assess the relative standard of living. (Sanyal & Arora, n.d.) Gross domestic product (GDP), tells us the country's current aggregate production of goods and services. It is often considered the best measure of how well the economy is performing. GDP summarizes the aggregate of all economic activities in a given period of time. ((PDF) *Estimation, Analysis and Projection of India's GDP*, 2025).

Paramita Chatterjee (2017) explained that India's Gross Domestic Product (GDP) is projected to grow 7.2 percent in 2017-18, World Bank specified that in 2016-17, India's GDP is projected to be 6.8 percent. ((PDF) *AN EMPIRICAL ANALYSIS OF VARIATION IN GROSS STATE DOMESTIC PRODUCT (GSDP) OF DIFFERENT STATES IN INDIA*, n.d.).

The paper, "Gross Domestic Product Prediction using Machine Learning" by Vaishnavi Padmawar, Pradnya Pawar, Akshit Karande [3], shows that the effect of varying inflation on real gross domestic product growth is negative. (Bagate et al., 2022). Economic performance has been widely different across states in India. This paper attempts to examine some possible determinants of gross state domestic product (GSDP) growth across 17 major states in India during 2004–05 to 2016–17. (Panda & Sahay, 2022). The economic disparities between states in India highlight the need for more inclusive growth strategies. The success of Western and Southern states can be attributed to robust industrial bases, thriving service sectors, and well-implemented government policies. ("The Relative Economic Performance of Indian States," 2024). Overall, the **western and southern regions** of the country are **outperforming** others, with **notable success** also observed in parts of the **north**. (*Relative Economic Performance of Indian States*, n.d.). Over the last few years, there has been rising inequality among Indian states in terms of per capita gross domestic product. By examining the convergence or divergence between 20 major Indian states from 2000 to 2019, we find that the differences in productivity growth rates, as well as different steady states, are the drivers of states' increasing per capita GSDP inequality. (Growth Divergence between Indian States | Economic and Political Weekly, 2025).

Developmental ideas were debated within the state. Substantial economic policy change would require building upon a historical path of gradual changes in ideas and policies, punctuated by economic crises. This paper demonstrates how this dynamic is critical for explaining the politics of the green revolution and consequent self-sufficiency in food grains, as well as for understanding the India's globalization beyond 1991.(Mukherji, 2009). Over the past one and half decade India has experienced high growth in its GDP with very slow or even stagnant growth in its employment giving rise to a new peculiar phenomenon of “jobless growth”(Sahoo, 2020)

3. RESEARCH OBJECTIVES

The objective is to examine long-term GDP trends on a state-by-state basis and evaluate the economic performance of various regions. Additionally, the aim is to compare the economic contributions of distinct regions and pinpoint the states that contribute the most to GDP. Furthermore, the analysis will involve assessing GDP growth rates over time and providing forecasts for the upcoming two years.

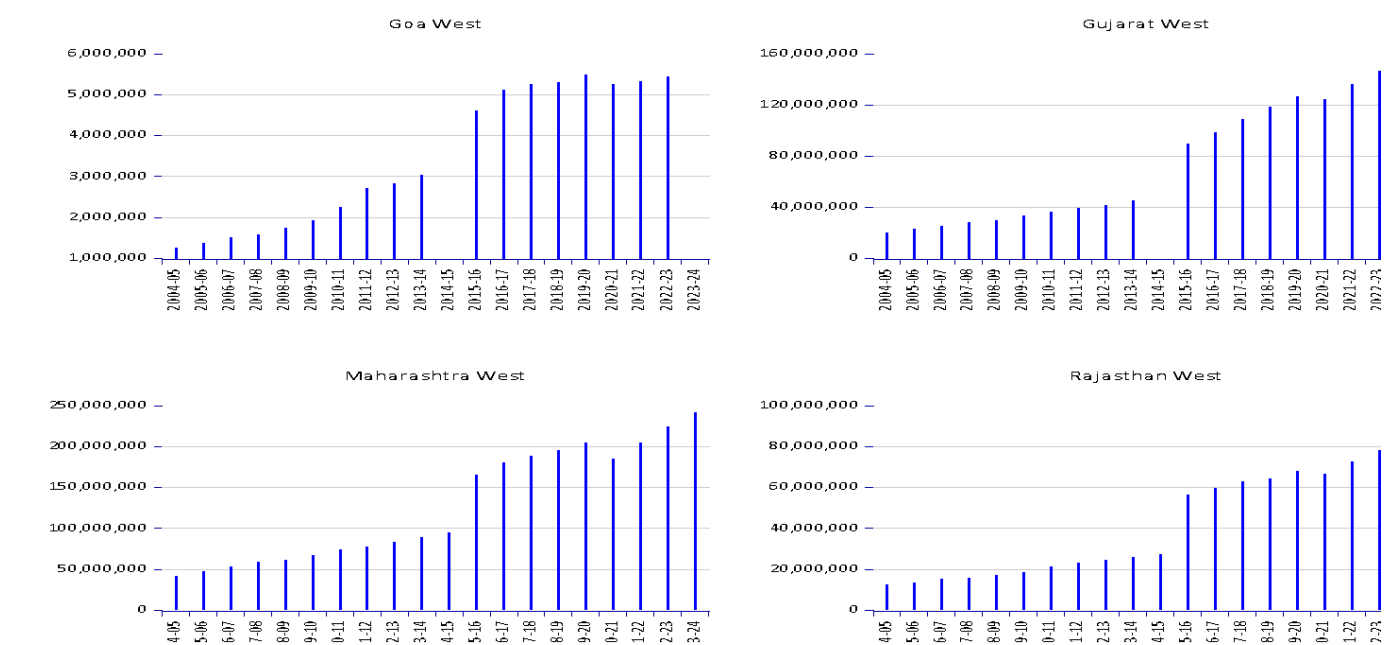
4. METHODOLOGY

The research utilizes secondary data analysis, drawing on GDP figures from authoritative sources including the National Statistical Office (NSO), the Reserve Bank of India (RBI), and reports from state governments. Descriptive statistics and trend analysis methodologies are employed to assess GDP variations, calculate growth rates, and compare economic performance across different regions over time. This study encompasses all significant Indian states and Union Territories, investigating GDP contributions from various sectors such as agriculture, industry, and services. The findings underscore the preeminence of economically robust states while also pinpointing emerging growth hubs. Furthermore, the research assesses the effects of economic policies, global factors, and sectoral transitions on the GDP performance of states.

5. DATA ANALYSIS AND INTERPRETATION

❖ WEST REGION

Graph 1.1 Year-wise GDP for West Region



Graph 1.1 shows an increasing trend in the variables over time, indicating **steady economic growth and rising financial metrics**. Each graph reflects **consistent upward movement**, suggesting improvements in reserves, investments, government receipts, or trade. Some variations are observed, but the overall pattern signifies **long-term economic expansion and development**.

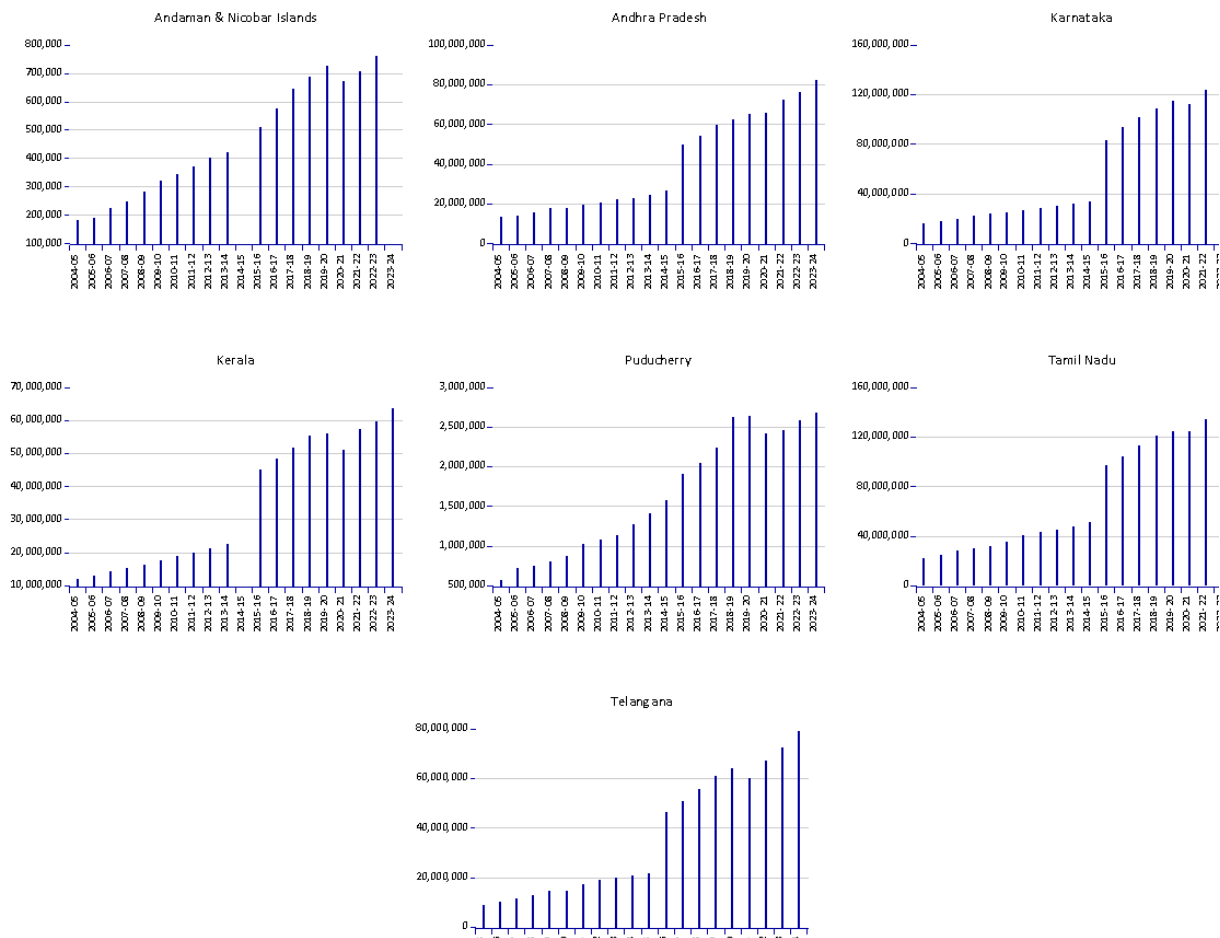
Table 1.1 Descriptive Analysis of GDP of West Region States

	GOA_ WEST	GUJARAT_ WEST	MAHARASHTR A_WEST	RAJASTHAN _WEST
Mean	344531 3.	70656043	1.27E+08	41424754
Media n	292592 4.	43439437	92215863	26482972
Maxi mum	548115 4.	1.47E+08	2.41E+08	84511511
Mini mum	127133 1.	20337300	41547968	12774565
Std. Dev.	171308 4.	46148846	69594904	25692362
Skew ness	0.04716 7	0.375136	0.245631	0.301499
Kurto sis	1.24610 9	1.441011	1.386381	1.395068

The data in the table represents key economic or financial indicators across four western Indian states: **Goa, Gujarat, Maharashtra, and Rajasthan**. **Maharashtra has the highest mean and maximum values**, indicating its dominance in the region, while Goa has the lowest values. **High standard deviations across all states suggest significant fluctuations over time**.

❖ SOUTH REGION

Graph 1.2 Year-wise GDP for South Region



The graphs 1.2 show an increase over time with a steady upward trend in different regions. Some places grow more quickly than others, which could be the result of greater investments, governmental changes, or economic expansion. Some graphs' oscillations point to times of volatility or other factors influencing the patterns. Overall, the data shows that growth trends vary by location while continuing on a generally upward trajectory.

	ANDAMAN__NICOB AR	ANDHRA_PRADE SH	KARNATAK A	KERALA	PUDUCHERR Y
Mean	459870.5	40189938	64714341	34724249	1639245.
Median	411729.0	25562233	33278050	22620850	1488931.
Maximum	762070.0	82089357	1.42E+08	63513653	2676539.
Minimum	181264.0	13476688	16674713	11926400	575371.0
Std. Dev.	202458.0	24460199	46378059	19558047	760423.5
Skewness	0.124004	0.377269	0.376644	0.166698	0.109454
Kurtosis	1.525935	1.478210	1.413314	1.234415	1.429962

Table 1.2 Descriptive Analysis of GDP of Southern Region States

As per Table 1.2, Tamil Nadu and Karnataka have the highest mean and maximum values, indicating their strong economic or demographic presence, while Andhra Pradesh and Telangana also show significant variation. Kerala and Pondicherry have relatively lower values, with Kerala showing more stability. The Andaman & Nicobar Islands have the smallest range, reflecting their limited scale. The skewness is moderate across all states, and low kurtosis suggests a fairly normal distribution without extreme outliers.

❖ NORTH REGION

Graph 1.3 Year-wise GDP for North Region



The graphs 1.3 illustrate the growth trends in different states, including Chhattisgarh, Jharkhand, Odisha, Tamil Nadu, Andhra Pradesh, Puducherry, and Telangana. Each state exhibits a rising pattern over time, suggesting economic expansion, increased investments, or infrastructural development. While some states like Andhra Pradesh and Telangana show steeper growth, others like Odisha and Jharkhand demonstrate relatively steady progress. The fluctuations in certain states may indicate periods of economic reforms, policy shifts, or external influences affecting growth.

Table 1.3 Descriptive Analysis GDP of Northern Region States

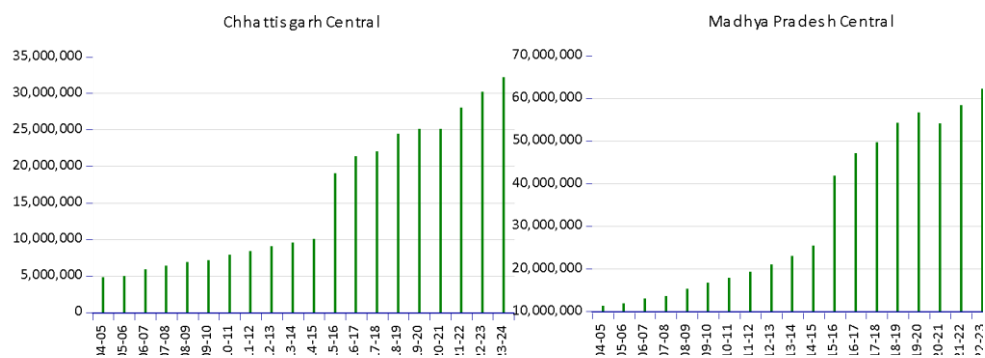
	CHANDIGARH	DELHI	HARYANA	HIMACHAL_PRADESH	JAMMU KASHMIR	PUNJAB
Mean	1989055.	34617043	31829507	7445589.	7160882.	26028409
Median	1499808.	22900881	20740128	4725476.	4548674.	17866788
Maximum	3384213.	67224666	63402656	14280003	13842233	49588095
Minimum	850404.0	10032452	9579512.	2407658.	2730462.	9683851.
Std. Dev.	904560.1	21010556	19555391	4402245.	4073077.	14303532
Skewness	0.239415	0.231049	0.283916	0.201536	0.294645	0.307140
Kurtosis	1.343058	1.288101	1.352715	1.290236	1.329471	1.398640

UTTAR_PRADESH	UTTARAKHAND
71777136	10935831
47844708	7423881.
1.42E+08	21337819
26084066	2478567.
40983159	6984815.
0.338966	0.183636
1.453112	1.275083

As per table 1.3, Uttar Pradesh has the highest mean and maximum values, indicating its large scale, while Delhi follows with significant variation. Haryana and Punjab also show substantial economic or demographic presence. Himachal Pradesh, Jammu & Kashmir, and Uttarakhand have lower values, reflecting smaller populations or economies. Skewness is moderate across all states, and low kurtosis suggests a normal distribution without extreme outliers.

❖ CENTRAL REGION

Graph 1.4 Year-wise GDP for Central Region



The graph 1.4 depicts the growth trends in Uttarakhand and Madhya Pradesh over time. Both states show a consistent upward trajectory, indicating economic expansion and increasing developmental activities. Madhya Pradesh exhibits a steeper growth pattern compared to Uttarakhand, suggesting a more accelerated pace of investment and infrastructural progress.

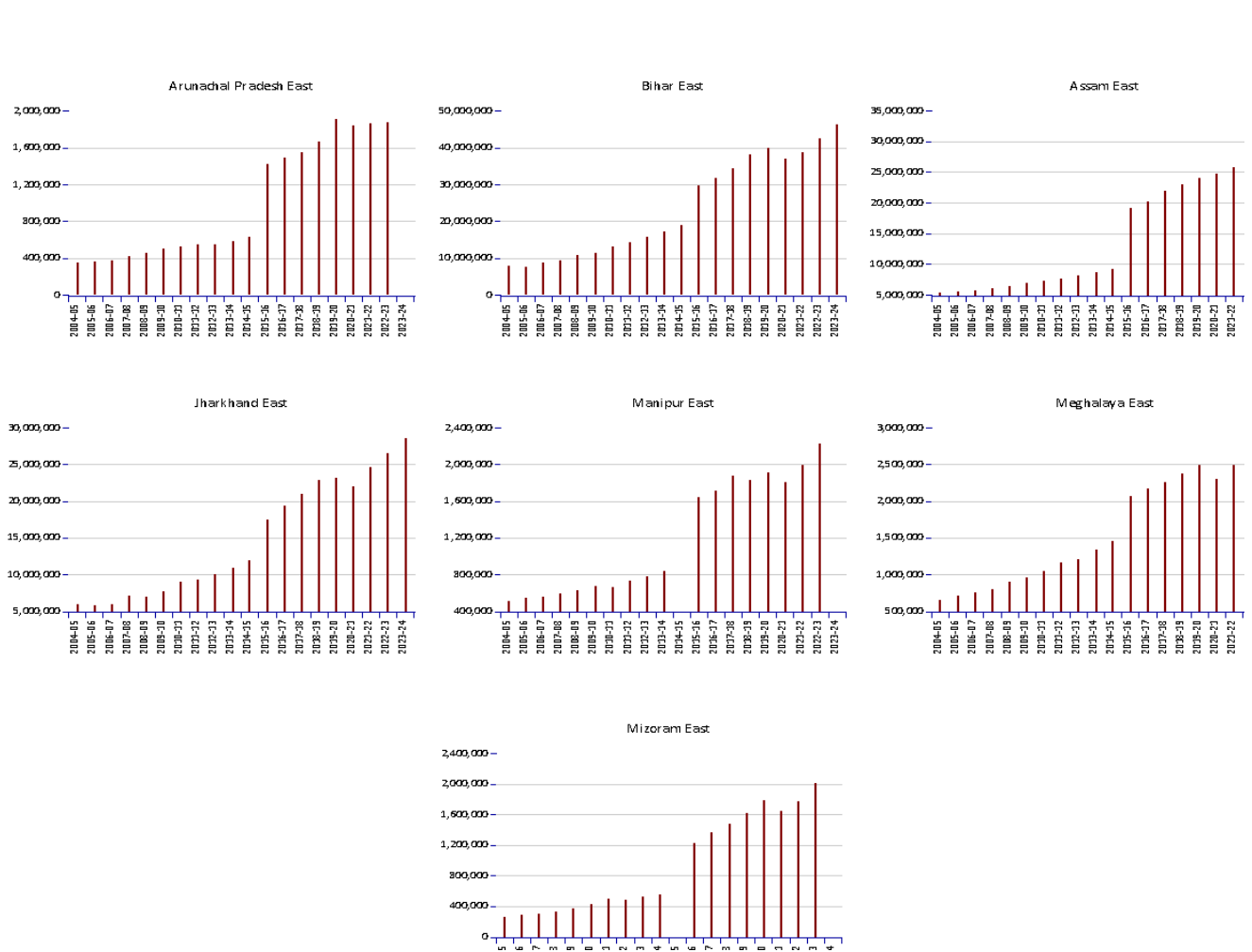
Table 1.4 Descriptive Analysis GDP of Central Region States

	CHHATTISGARH_CENTRAL	MADHYA_PRADESH_CENTRAL
Mean	15427040	33947975
Median	9805246.	24181399
Maximum	32194473	66036335
Minimum	4786229.	11292689
Std. Dev.	9653148.	19985789
Skewness	0.390602	0.288876
Kurtosis	1.528090	1.390015

The data in Table 1.4 compares GDP between Chhattisgarh and Madhya Pradesh, highlighting a significant difference in economic activity. Madhya Pradesh has a higher mean and median value, indicating a larger scale of economic output compared to Chhattisgarh. The standard deviation is also higher in Madhya Pradesh, suggesting greater variability in economic performance. Both states exhibit slight positive skewness and low kurtosis, indicating a fairly normal distribution with a few extreme values.

❖ EAST REGION

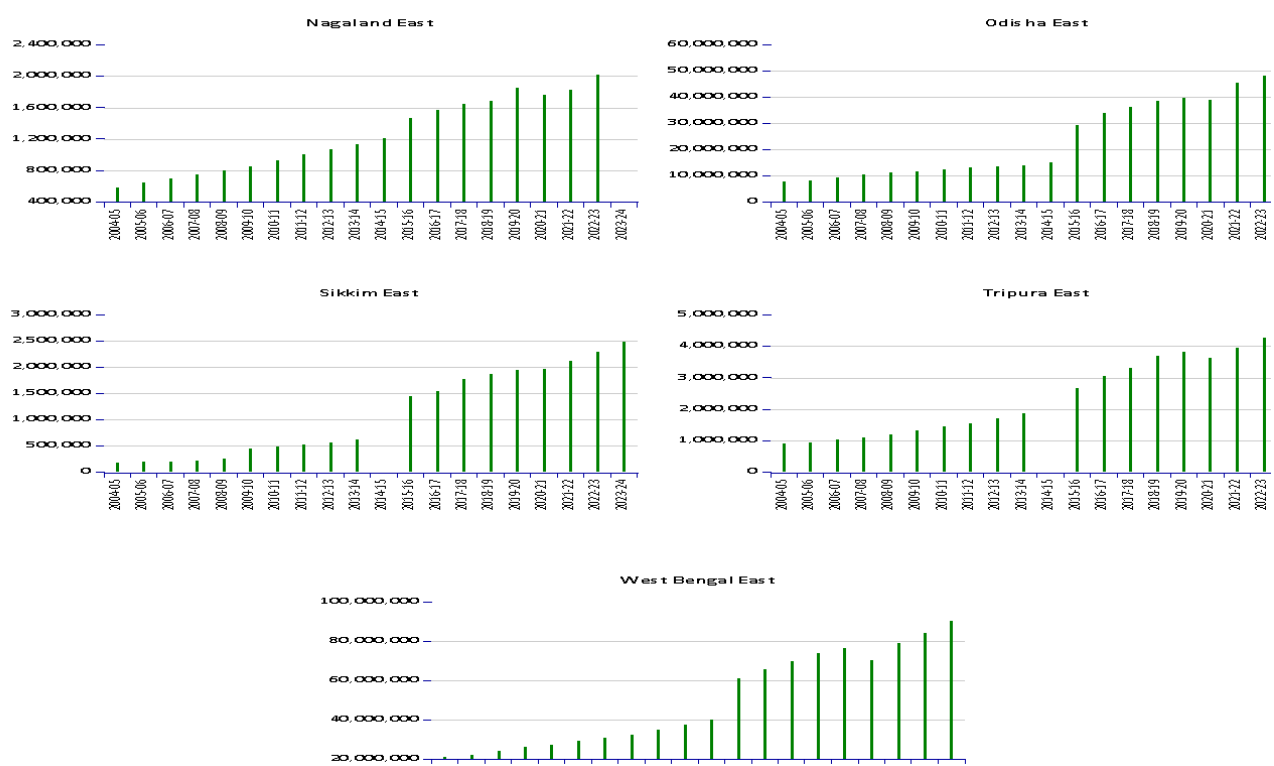
Graph 1.5 Year wise GDP for East Region



The graphs 1.5 indicate a consistent upward trend in economic or demographic indicators across multiple states, including Uttar Pradesh, Bihar, Madhya Pradesh, Rajasthan, Jharkhand, Chhattisgarh, and Uttarakhand. The growth pattern suggests increasing economic activity or population in these states over time, with some variations in growth intensity.

	ARUNACHAL_P RADESH	BIHA R	ASSA M	JHARKHAN D	MANI PUR	MEGHA LAYA	MIZO RAM
Mean	996883.2	23692 221	14808 175	14811970	11959 03.	1632855.	94160 8.3
Media n	590478.0	18159 929	89646 68.	11407579	80864 6.5	1395408.	54053 4.0
Maxi mum	1914030.	46454 045	31855 859	28507000	22255 72.	2834232.	20173 18.
Mini mum	348751.0	76465 94.	53397 71.	5784841.	51333 6.0	655933.0	26819 7.0
Std. Dev.	635562.0	13650 623	92570 55.	7921535.	64054 5.4	759975.0	64223 4.1
Skew ness	0.386741	0.257 277	0.407 939	0.323153	0.2843 90	0.152327	0.3661 86
Kurto sis	1.326894	1.443 824	1.532 377	1.525305	1.2860 54	1.416566	1.4195 51

Graph 1.6 Year-wise GDP for East Region



The graphs 1.6 indicate a consistent upward trend across all states—Hyderabad, Odisha, Maharashtra, Rajasthan, and West Bengal—suggesting growth in economic or demographic metrics over time. Maharashtra and West Bengal exhibit the steepest rise, indicating higher expansion compared to other states. The steady increase in Odisha and Rajasthan highlights a relatively stable but slower growth trajectory.

Table 1.6 Descriptive Analysis GDP of Eastern Region States

	NAGALAND	ODISHA	SIKKIM	TRIPURA	WEST BENGAL
Mean	1235301	24383394	1110157	2425850	49667999
Median	1136706	14302218	615231	1873246	38509078
Maximum	2015430	52091085	2490231	4645535	90408760
Minimum	583884	7772943	173915	890353	20865636
Std. Dev.	471265.5	15495778	844620.6	1299892	24113716
Skewness	0.173415	0.432445	0.250151	0.28123	0.284266
Kurtosis	1.57055	1.565144	1.401854	1.507866	1.453804

Table 1.6 Nagaland, Sikkim, and Tripura have relatively lower mean values, indicating smaller economic or demographic scales compared to Odisha and West Bengal. Odisha shows significant variation, with a high maximum value, suggesting rapid growth or fluctuations. West Bengal has the highest mean and maximum values, highlighting its dominant position in the region, while all states exhibit moderate skewness and low kurtosis, indicating relatively stable distributions without extreme outliers.

TREND ANALYSIS**Table 1.7 _Trend Analysis and forecasted GDP Estimates of Region Wise Top two states.**

Region	State	2023 GDP	2024 Forecast GDP	2025 Forecast GDP	2026 Forecast GDP	Growth Rate
North	Uttar Pradesh	89509618.27	91726178.51	93942738.76	96159299.01	5%
	Delhi	40090092.76	40774224.03	41458355.31	42142486.58	3%
South	Tamil Nadu	98179659.23	100946029.3	103712399.3	106478769.3	6%
	Karnataka	88196943.62	91132269.01	94067594.4	97002919.79	7%
East	West Bengal	58577900.12	59691637.71	60805375.29	61919112.87	4%
	Odisha	31675173.14	32586645.59	33498118.05	34409590.5	6%
West	Maharashtra	156220141.7	159874487.8	163528834	167183180.1	5%
	Gujarat	92825207.46	96479553.59	100133899.7	103788245.8	8%
Central	Madhya Pradesh	42997172.46	44128322.13	45259471.79	46390621.45	5%
	Chhattisgarh	19983687.93	20553268.91	21122849.89	21692430.87	6%

In the table, Table 1.7, we forecasted the GDP of different states in India, which is being segregated into five different regions, i.e., North, South, East, West, and Central. The GDP forecasted growth rate for the next 3 years is more in the West region of India by 8% in Gujarat, and the GDP forecasted growth rate for the next 3 years is less in the North region of India by 3% in New Delhi. The economic growth projections for key states in India from 2023 to 2026. It uses GDP (Gross Domestic Product) as the primary metric and forecasts future GDP values based on current trends.

Key Components:

Region: Categorizes India into five distinct regions: North, South, East, West, and Central.

State: Identifies the top two states in each region according to their GDP.

2023 GDP: Provides the actual GDP figures for each state in the year 2023, serving as the foundation for future forecasts.

2024, 2025, 2026 Forecast GDP: Outlines the anticipated GDP figures for each state in the upcoming years.

Growth Rate: Specifies the expected average annual growth rate for each state throughout the forecast period.

Interpretation by Region:

✓ North:

Uttar Pradesh: Demonstrates a stable growth rate of 5%, reflecting ongoing economic development.

Delhi: Anticipates a more conservative growth rate of 3%, which may indicate a maturing economy or slower growth in specific sectors.

✓ South:

Tamil Nadu: Expected to experience a growth rate of 6%, highlighting strong economic activity.

Karnataka: Leads with a projected growth rate of 7%, suggesting rapid advancement and significant investments in key industries.

✓ East:

West Bengal: Forecasts a growth rate of 4%, indicating moderate economic advancement.

Odisha: Anticipated to grow at 6%, reflecting vigorous economic activity and the potential for increased growth.

✓ West:

Maharashtra: Exhibits a steady growth rate of 5%, indicating a stable and expanding economy.

Gujarat: Expected to achieve an impressive growth rate of 8%, suggesting a high-growth trajectory and significant economic development potential.

✓ Central:

Madhya Pradesh: Projects a growth rate of 5%, indicating consistent economic progress.

Chhattisgarh: Forecasted to grow at 6%, suggesting strong economic momentum and the potential for further growth.

Southern and Western States are Leading Growth: The Southern and Western regions, particularly Karnataka and Gujarat, are anticipated to exhibit the highest growth rates, reflecting robust economic performance.

Steady Growth in Key States: A significant number of key states exhibit consistent growth rates, reflecting effective economic policies and favorable business conditions.

Diverse Growth Rates: The differing growth rates among various regions underscore the unique economic environments and developmental paths present in India.

Forecasting Limitations: Economic predictions are influenced by numerous uncertainties and may not align with actual results.

Data Reliability: The precision of these forecasts is contingent upon the dependability and thoroughness of the data sources utilized.

Impact of Policy Adjustments: Modifications in governmental policies and regulations can profoundly affect economic growth and modify the forecasts.

In summary, this table offers an insightful overview of the anticipated economic growth in India's prominent states, emphasizing the robust performance of the Southern and Western regions while highlighting the country's varied economic landscape.

6. CONCLUSION

This research presents an in-depth examination of the GDP trends across various states in India, emphasizing the economic roles played by different regions. The results highlight the significant contributions of states such as Maharashtra, Gujarat, Tamil Nadu, and Karnataka in propelling national economic growth. Furthermore, the analysis identifies regional inequalities, with Western and Southern states exhibiting higher rates of economic growth compared to their Northern and Eastern counterparts.

The trend analysis and GDP projections indicate that Gujarat and Karnataka are likely to experience the most substantial growth, whereas Delhi is expected to follow a slower yet stable growth path. These findings underscore the necessity for targeted economic strategies aimed at fostering balanced development across regions. Enhancements in infrastructure, industrial expansion, and policy reforms are essential for aiding underperforming states in elevating their economic status.

In summary, this study serves as a crucial tool for policymakers and economists in strategizing resource distribution and improving economic planning. Future research could further investigate sector-specific contributions to GDP, evaluate the effects of external influences such as global trade and technological progress, and examine the role of policy in driving economic changes.

7. REFERENCES

https://www.researchgate.net/publication/345443612_AN_EMPIRICAL_ANALYSIS_OF_VARIATION_IN_GROSS_STATE_DOMESTIC_PRODUCT_GSDP_OF_DIFFERENT_STATES_IN_INDIA

<https://www.sciencedirect.com/science/article/pii/S240584401838976X>

<https://www.indiabudget.gov.in/economicsurvey/doc/echapter.pdf>

<https://www.ibef.org/economy/indian-economy-overview>

https://ieindia.org/upload/profile_publication/doc-250620_133453wppf399.pdf

https://www.researchgate.net/publication/346938807_An_Assessment_of_Gross_State_Domestic_Product_at_Constant_2011-12_Prices_in_India_from_2011_to_2017

<https://www.researchgate.net/publication/353268348> Gross Domestic Product Prediction using Machine Learning

<https://www.researchgate.net/publication/233299899> The State Economic Growth and Development in India

https://scholar.google.com.sg/citations?view_op=view_citation&hl=en&user=nQpjBKcAAAAJ&citation_for_view=nQpjBKcAAAAJ:qjMakFHDy7sC