IJRAR.ORG E-ISSN: 2348-1269, P-ISSN: 2349-5138
INTERNATIONAL JOURNAL OF RESEARCH AND ANALYTICAL REVIEWS (IJRAR) | IJRAR.ORG
An International Open Access, Peer-reviewed, Refereed Journal

Progress and Disparities in India's Sustainable Development Goals Performance: For the period of 2018-2023

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Abstract

This paper explores India's progress toward achieving the Sustainable Development Goals (SDGs) from 2018 to 2023, with a focus on regional disparities across states and union territories. The analysis draws on official government data, including the SDG India Index and other relevant sources, to evaluate India's advancements in areas like gender equality, education quality, and economic growth. During this period, India made notable strides in education and access to clean energy, yet regional disparities remain evident, particularly in gender equality and workforce participation. While states such as Kerala and Himachal Pradesh performed consistently well on the SDG index, others like Bihar and Uttar Pradesh faced challenges, reflecting a growing development divide. The study utilizes the disparity ratio to measure and compare these regional differences, offering an in-depth look at the uneven progress. This approach highlights the unequal distribution of resources and opportunities, particularly in the social and economic sectors. The research also examines the role of governmental policies and their effectiveness in reducing inequality. This analysis underscores the importance of focused policy measures to address these inequalities. The findings offer valuable insights into India's SDG performance while highlighting the ongoing challenges in ensuring balanced and inclusive development by 2030.

Keywords: Sustainable Development Goals (SDGs), regional disparities, SDG India Index, gender equality, disparity ratio, equitable development.

Introduction

Sustainable development has emerged as a guiding framework for balancing economic growth with social equity and environmental protection. Its origins can be traced to global concerns over resource depletion, inequality, and ecological degradation, which were formally articulated in the Brundtland Commission's concept of development that meets present needs without compromising future generations. This vision was later institutionalized through the United Nations Sustainable Development Goals, providing a comprehensive and integrated approach to development across nations. The essence of sustainable development lies in its multidimensional nature—it does not treat growth, inclusion, and sustainability as separate goals but as interconnected pillars that must progress simultaneously.

For a country like India, sustainable development is not just an ideal but a necessity. With its vast population, regional diversity, and varying levels of socio-economic development, the challenge is to ensure that growth translates into improved living standards for all sections of society without placing excessive strain on natural resources. Rapid urbanization, industrial expansion, and rising consumption patterns have intensified pressures on land, water, and energy systems, making sustainability a critical policy priority. At the same time, persistent issues such as poverty, unemployment, and unequal access to education and healthcare demand inclusive strategies that leave no one behind.



The importance of sustainable development in India also lies in its ability to create long-term resilience. It encourages efficient resource use, promotes innovation in clean technologies, and strengthens institutional frameworks for governance. More importantly, it aligns economic ambitions with environmental responsibility and social justice. By embedding sustainability into policy and practice, India can ensure that development is not only accelerated but also equitable and enduring.



India's SDG Progress: A Snapshot (2023-24)

India has made remarkable strides in its Sustainable Development Goals journey, with the national composite score rising from 57 in 2018 to 71 in 2023-24 — a 14-point leap that reflects sustained, targeted policy action over six years. 32 States and UTs have now achieved Front Runner status, with 10 new entrants including Uttar Pradesh, Assam, Odisha, and West Bengal — states that were previously lagging. The most dramatic sectoral gains came in Climate Action (Goal 13), which jumped 13 points, and No Poverty (Goal 1), which rose 12 points — both now firmly in the Front Runner category. Clean Energy (Goal 7) stands as the highest-scoring SDG, reflecting the success of schemes like Saubhagya and Ujjwala.

Key government programmes — including PM Awas Yojana, Jal Jeevan Mission, Ayushman Bharat, and PM Mudra Yojana — have directly contributed to improvements across health, housing, sanitation, and economic inclusion. Among states, Uttar Pradesh recorded the highest score jump of 25 points since 2018, followed by Jammu and Kashmir at 21 points and Uttarakhand at 19 points. Gender equality (Goal 5) remains the most under-performing goal, improving from just 36 to 49, signalling that inclusive growth still has significant ground to cover. Overall, India's SDG trajectory is encouraging, though regional and gender disparities continue to demand urgent, focused attention.

Review of literature:

India is central to global SDG success because of its population size, rapid growth, and environmental pressures. Research shows a mixed picture: substantial gains in some areas, but serious shortfalls and inequalities in others.

Across 707 districts and 33 health-related SDG indicators, India is off-target on 19, especially for basic services, child nutrition, anaemia, child marriage, partner violence, tobacco use, and modern contraception (Subramanian et al.,2023). Many districts are projected to miss targets well beyond 2030 if trends continue.

Sub-national studies find large variation: 14 of 29 states perform well on a composite SDG index, while others lag on quality of life and infrastructure (Bhanja et al.,2023). Southern and northern states generally outperform central and eastern states; inequality in SDG performance is decreasing but remains significant (Nandini Garai et al.,2020). State-level rankings place Kerala at the top and Bihar at the bottom in SDG attainment (Dwivedi et al.,2020.). Urban analyses show 55% of cities lag behind their own states, and 18% struggle to convert environmental performance into socio-economic gains.

Common constraints include socio-economic inequality, institutional and policy weaknesses, environmental degradation, population growth, and data limitations (Roy et al. ,2019). Many cities prioritize economic growth over environmental protection, worsening inequality and ecological stress. Off-target districts cluster in poorer states like Madhya Pradesh, Chhattisgarh, Jharkhand, Bihar, and Odisha.

India has integrated SDGs into national planning, with NITI Aayog as the nodal agency and a national SDG index to monitor states (Chatterjee, 2021). Flagship programs include Swachh Bharat Abhiyan (sanitation), Jal Jeevan Mission (water), Smart Cities Mission, National Action Plan on Climate Change, and large-scale renewable energy missions (Singh et al., 2022).

Recommended priorities are: stronger policy integration, multi-stakeholder collaboration, localization of SDGs, better data systems, targeted support to lagging states and districts, and technology- and optimization-based planning to balance growth, jobs, and sustainability

(Rawat et al., 2025).

Methodology

This study is based on secondary data sourced from the Sustainable Development Goals (SDG) reports published by NITI Aayog. The analysis covers the time period from **2018 to 2024**, using selected yearly observations (2018, 2019, 2020, 2021, and 2024) for all States and Union Territories. The dataset was structured to examine both the level and pace of SDG performance across regions.

To conduct a comprehensive analysis, three statistical techniques were employed: averages, standard deviation, and the State Improvement Index (SII). The average score was used to evaluate the overall performance of each state over the study period, while standard deviation measured the consistency or variability in performance. Lower standard deviation indicates stable progress, whereas higher values reflect fluctuations in development outcomes.

To assess the relative speed of progress, the State Improvement Index (SII) was calculated using the following formula:

State Improvement Index (SII) = State's Growth Rate / All-India Growth Rate

Where,

Growth Rate = (Final Score − Initial Score) / Number of Years

The All-India growth rate was computed using the national SDG score over the same time period (2018–2024).

The interpretation of SII is as follows: if SII > 1, the state is growing faster than the national average; if SII < 1, the state is growing slower than the national average; and if SII = 1, the state is progressing at the same rate as the country.

By integrating these methods over the defined time period, the study captures not only the relative position of states but also differences in the pace and stability of their development, offering a clearer understanding of regional disparities in India's SDG performance.

Result and Discussion:

Table 1: STATE-WISE SUSTAINABLE DEVELOPMENT GOALS (SDGs) SCORE

State/Union Territory	2018	2019	2020	2021	2024	Average	Std. Dev
Andaman & Nicobar Islands	58	61	67	67	70	64.6	4.41
Andhra Pradesh	64	67	72	72	74	69.8	3.71
Arunachal Pradesh	51	53	60	60	65	57.8	5.11
Assam	49	55	57	57	65	56.6	5.12
Bihar	48	50	52	52	57	51.8	2.99
Chandigarh	68	70	79	79	77	74.6	4.67
Chhattisgarh	58	56	61	61	67	60.6	3.72
Dadra & Nagar Haveli	57	63	62	62	66	62	2.9
Daman & Diu	63	61	62	62	66	62.8	1.72

Delhi	62	61	68	68	70	65.8	3.6
Goa	64	65	72	72	77	70	4.86
Gujarat	64	64	69	69	74	68	3.74
Haryana	55	57	67	67	72	63.6	6.5
Himachal Pradesh	69	69	74	74	77	72.6	3.14
Jammu & Kashmir	53	59	66	66	74	63.6	7.12
Jharkhand	50	53	56	56	63	55.6	4.32
Karnataka	64	66	72	72	75	69.8	4.12
Kerala	69	70	75	75	79	73.6	3.67
Ladakh	-	-	66	66	65	67.6	2.36
Lakshadweep	62	63	68	68	66	65.4	2.5
Madhya Pradesh	52	58	62	62	67	60.2	5
Maharashtra	64	64	70	70	73	68.2	3.6
Manipur	59	60	64	64	72	63.8	4.58
Meghalaya	52	54	60	60	63	57.8	4.12
Mizoram	59	56	68	68	72	64.6	6.05
Nagaland	51	57	61	61	63	58.6	4.27
Odisha	51	58	61	61	66	59.4	4.92
Puducherry	65	66	68	68	74	68.2	3.12
Punjab	60	62	68	68	76	66.8	5.6
Rajasthan	59	57	60	60	67	60.6	3.38
Sikkim	58	65	71	71	76	68.2	6.18
Tamil Nadu	66	67	74	74	78	71.8	4.58
Telangana	61	67	69	69	74	68	4.2
Tripura	55	58	65	65	71	62.8	5.67
Uttar Pradesh	42	55	60	60	67	56.8	8.33
Uttarakhand	60	64	72	72	79	69.4	6.68
West Bengal	56	60	62	62	70	62	4.56
ALL INDIA	57	60	66	66	71	64	4.41

-: Source: NITI Aayog, Government of India

India's SDG Journey: Progress, Disparities, and What the Numbers Really Tell Us

India's Sustainable Development Goals (SDG) Index scores across states and Union Territories show a country that is moving ahead, but not at the same pace everywhere. The overall national score has improved from 57 to 71, which clearly reflects policy efforts and progress. However, this average does not tell the full story. When we look deeper, strong regional differences emerge, and each state reflects a very different development reality.

The Standard Deviation Lens

Looking only at average scores is not enough to understand disparities. Standard deviation (SD) gives a clearer picture of how stable or uneven a state's progress has been. A low SD along with a high average shows steady and well-managed development. A high SD suggests irregular progress, where improvements are not consistent over time. The most concerning situation is when both the average and SD are low, as it reflects continuous underperformance without meaningful change.

Top Performers: Consistent and Credible

Kerala stands out as the best-performing state, with an average score of 73.6 and an SD of 3.67. This reflects not just high performance but also consistency over time, supported by strong public health systems, high literacy, and inclusive governance. Himachal Pradesh follows closely with an average of 72.6 and an SD of 3.14, showing steady progress even with geographical challenges. Among Union Territories, Chandigarh leads with an average score of 74.6, supported by strong infrastructure and governance.

Other leading states include Tamil Nadu (avg: 71.8, SD: 4.58), Goa (avg: 70, SD: 4.86), and both Andhra Pradesh and Karnataka (avg: 69.8). These states have benefited from continued investment in health, education, and industrial growth, which has resulted in stable SDG performance.

The Struggling States: Structural Barriers at Work

Bihar remains at the bottom among major states, with an average score of 51.8 and an SD of 2.99. The low SD here indicates that the state has consistently remained behind, without major improvement. Challenges such as poor health outcomes, low female literacy, weak infrastructure, and limited industrial development continue to restrict its progress.

Jharkhand (avg: 55.6, SD: 4.32) and Assam (avg: 56.6, SD: 5.12) face similar issues. Structural problems like limited connectivity, regional inequalities, and lack of diversified economic activity keep these states from moving ahead at a faster pace.

The Most Volatile State: Uttar Pradesh

Uttar Pradesh presents a unique case. Its average score is 56.8, but its SD is 8.33, the highest among all states. The state's score increased sharply from 42 to 67, marking a significant jump. This reflects large-scale government interventions in areas like sanitation, electrification, and healthcare. However, such high variation also suggests that progress may not be deeply rooted and could depend heavily on specific programmes.

Other regions like Jammu and Kashmir (SD: 7.12) and Mizoram (SD: 6.05) also show high fluctuations, influenced by administrative changes and geographical challenges.

The Middle Ground: Potential Waiting to Be Unlocked

Several states fall in the middle range, including Haryana, Rajasthan, Madhya Pradesh, Odisha, West Bengal, and Tripura, with average scores between 60 and 67 and moderate SD values. These states are progressing but not fully utilising their potential. For example, Haryana (avg: 63.6, SD: 6.5) has strong economic capacity, yet issues like gender inequality and uneven regional development affect its performance.

Uttarakhand (avg: 69.4, SD: 6.68) shows relatively high performance but also noticeable variation, indicating uneven progress across sectors and regions.

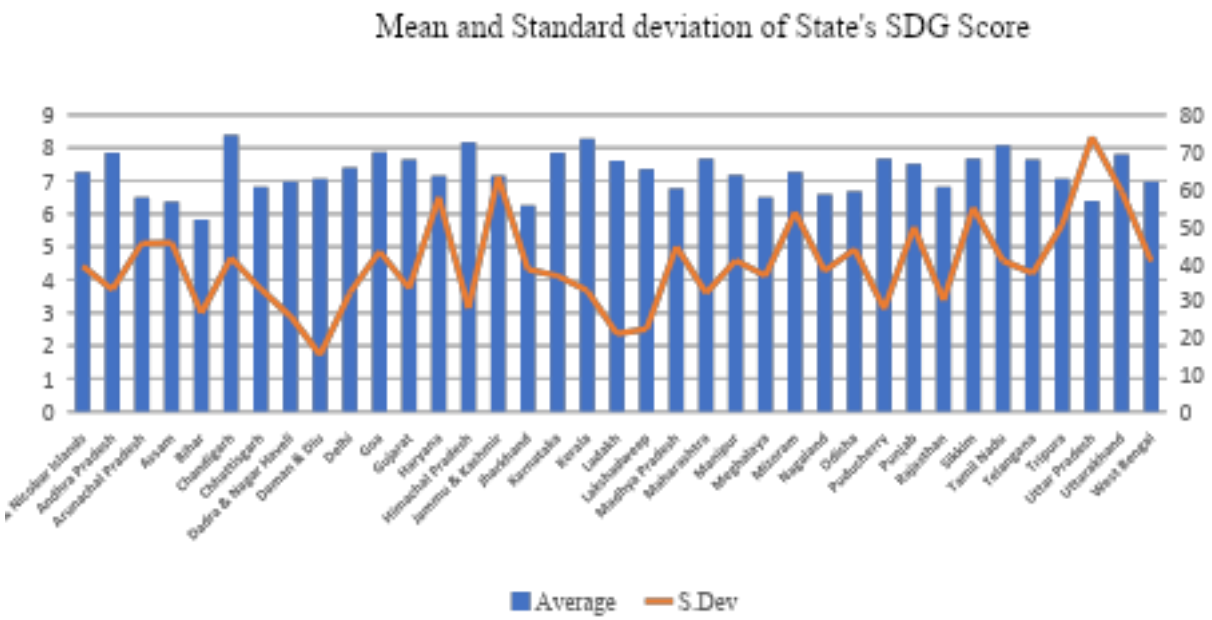
The 2020–2021 Anomaly

A common pattern across all states is the similarity in scores for 2020 and 2021. This is likely due to disruptions in data collection during the COVID-19 pandemic rather than actual stagnation. Limitations in surveys and reporting systems during this period affected the accuracy of data.

The Bigger Picture

India's SDG progress is visible, but it is uneven. The gap between Kerala's 79 and Bihar's 57 reflects more than just numbers—it shows differences in living conditions, access to services, and overall quality of life. Standard deviation helps highlight whether progress is stable or inconsistent across states. States like Kerala and Himachal Pradesh show that sustained and balanced development is possible.

To reduce these gaps, policy focus needs to shift from overall averages to targeted efforts in weaker regions, especially Bihar, Jharkhand, and Assam. Long-term structural improvements, rather than short-term schemes, will be essential for achieving balanced and inclusive development across the country.

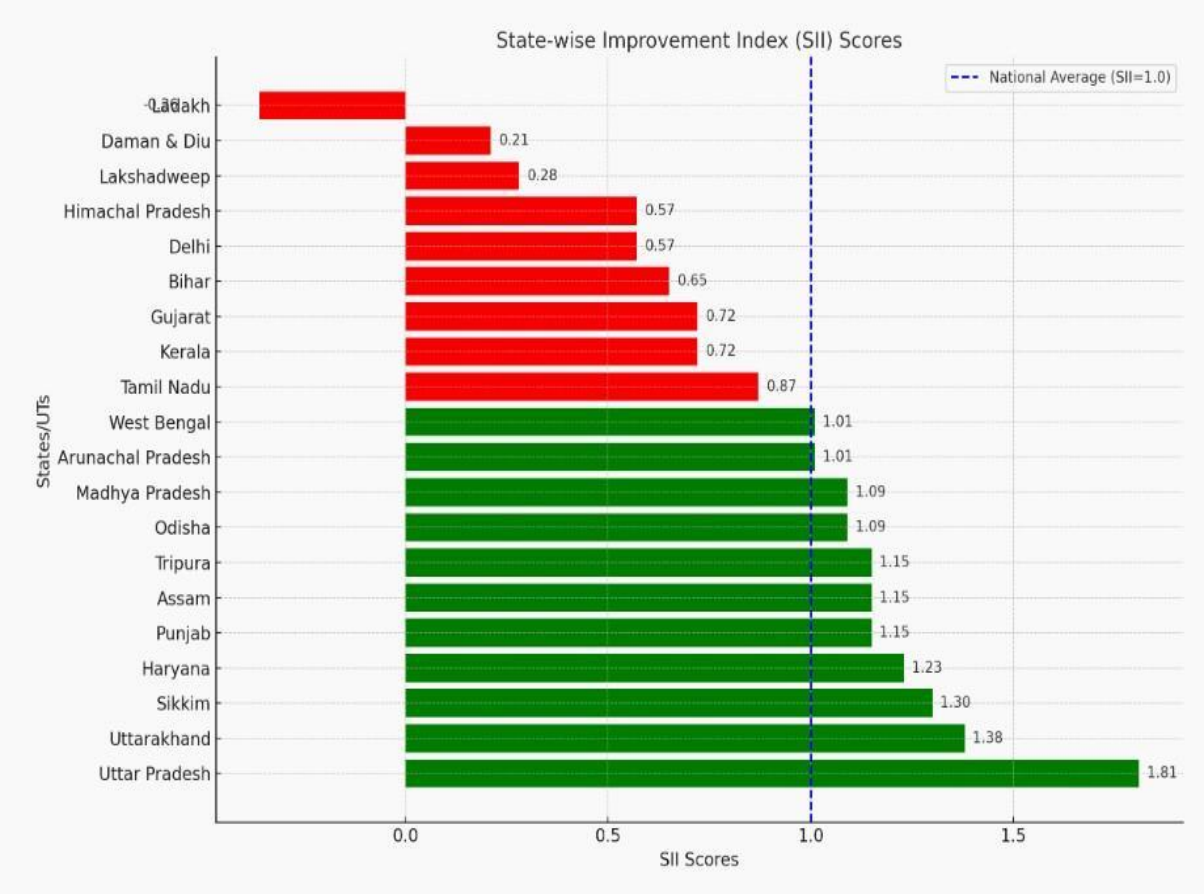


State-wise SDG Score Improvement Index

State wise Improvement Index Score				
State/Union Territory	**2018**	**2024**	**Growth Rate (per year)**	**SII = State Growth Rate / All-India Growth Rate**
Andaman & Nicobar Islands	58	70	2.0	0.87
Andhra Pradesh	64	74	1.7	0.72
Arunachal Pradesh	51	65	2.3	1.01
Assam	49	65	2.7	1.16
Bihar	48	57	1.5	0.65
Chandigarh	68	77	1.5	0.65
Chhattisgarh	58	67	1.5	0.65
Dadra & Nagar Haveli	57	66	1.5	0.65
Daman & Diu	63	66	0.5	0.22
Delhi	62	70	1.3	0.58
Goa	64	77	2.2	0.94
Gujarat	64	74	1.7	0.72
Haryana	55	72	2.8	1.23
Himachal Pradesh	69	77	1.3	0.58
Jammu & Kashmir	53	74	3.5	1.52
Jharkhand	50	63	2.2	0.94
Karnataka	64	75	1.8	0.80
Kerala	69	79	1.7	0.72
Ladakh	-	71	0.0	0.00
Lakshadweep	62	66	0.7	0.29
Madhya Pradesh	52	67	2.5	1.09
Maharashtra	64	73	1.5	0.65
Manipur	59	72	2.2	0.94
Meghalaya	52	63	1.8	0.80
Mizoram	59	72	2.2	0.94
Nagaland	51	63	2.0	0.87
Odisha	51	66	2.5	1.09

Puducherry	65	74	1.5	0.65
Punjab	60	76	2.7	1.16
Rajasthan	59	67	1.3	0.58
Sikkim	58	76	3.0	1.30
Tamil Nadu	66	78	2.0	0.87
Telangana	61	74	2.2	0.94
Tripura	55	71	2.7	1.16
Uttar Pradesh	42	67	4.2	1.81
Uttarakhand	60	79	3.2	1.38
West Bengal	56	70	2.3	1.01

The table provides detailed SII (State-wise Improvement Index) scores and the classification of states/UTs as faster or slower than the national average. Below is a summarized analysis:



State-wise Improvement Index: Who Is Catching Up and Who Is Falling Behind?

While SDG scores show the current position of each state, the State Improvement Index (SII) explains how quickly a state is progressing compared to the national trend. It is calculated by comparing a state's annual growth rate with India's overall growth rate. If the SII is above 1, the state is improving faster than the country's average and gradually catching up. If it is below 1, the state is moving slower than the national pace, which means it may fall behind over time even if its absolute score looks reasonable.

India's overall growth rate acts as the benchmark here. Instead of evaluating states individually, each state is measured against this common national standard, making SII a more reliable indicator of relative progress than simple score comparisons.

SII > 1 — The Overachievers: Growing Faster Than India

These states are improving at a speed higher than the national average, making them the fastest movers in the country.

Uttar Pradesh leads with the highest SII of 1.81, growing at 4.2 points per year. Its score increased from 42 to 67, showing a major improvement driven by interventions in sanitation, electrification, maternal health, and nutrition. However, part of this rapid growth is also because it started from a very low base, and it still has a long way to go in absolute terms.

Jammu and Kashmir follows with an SII of 1.52 and an annual growth of 3.5 points. Administrative changes after becoming a Union Territory in 2019, along with increased central support, helped accelerate development in infrastructure, healthcare, and education.

Uttarakhand (SII: 1.38) and Sikkim (SII: 1.30) stand out because they combine fast growth with already strong performance. Uttarakhand improved from 60 to 79, while Sikkim has maintained steady gains through ecological governance and institutional strength.

Haryana (SII: 1.23) also shows strong progress, moving from 55 to 72, especially due to improvements in gender-related indicators. Assam, Punjab, and Tripura each have an SII of 1.16, growing at 2.7 points annually. Punjab improved from 60 to 76, while Tripura moved from 55 to 71, supported by better connectivity and digital reach.

Madhya Pradesh and Odisha (both SII: 1.09) also show steady improvement, with Madhya Pradesh rising from 52 to 67 and Odisha from 51 to 66. Arunachal Pradesh and West Bengal, both at SII 1.01, are just slightly above the national growth rate.

SII ≈ 1 — Moderate Performers: Keeping Pace, Not Leading

States with SII close to 1.0 are progressing at roughly the same rate as the national average. They are neither catching up nor falling behind significantly.

Karnataka (SII: 0.94), Goa (0.94), Manipur (0.94), Mizoram (0.94), Telangana (0.94), and Jharkhand (0.94) fall into this group. Despite strong economic activity in some of these states, especially Karnataka and Telangana, internal inequalities reduce the pace of overall SDG improvement.

Nagaland and Tamil Nadu both have an SII of 0.87. Tamil Nadu, already a high performer with a score of 78, shows slower growth because further improvement at higher levels becomes more challenging.

SII < 1 — The Lagging States: Slower Than India's Pace

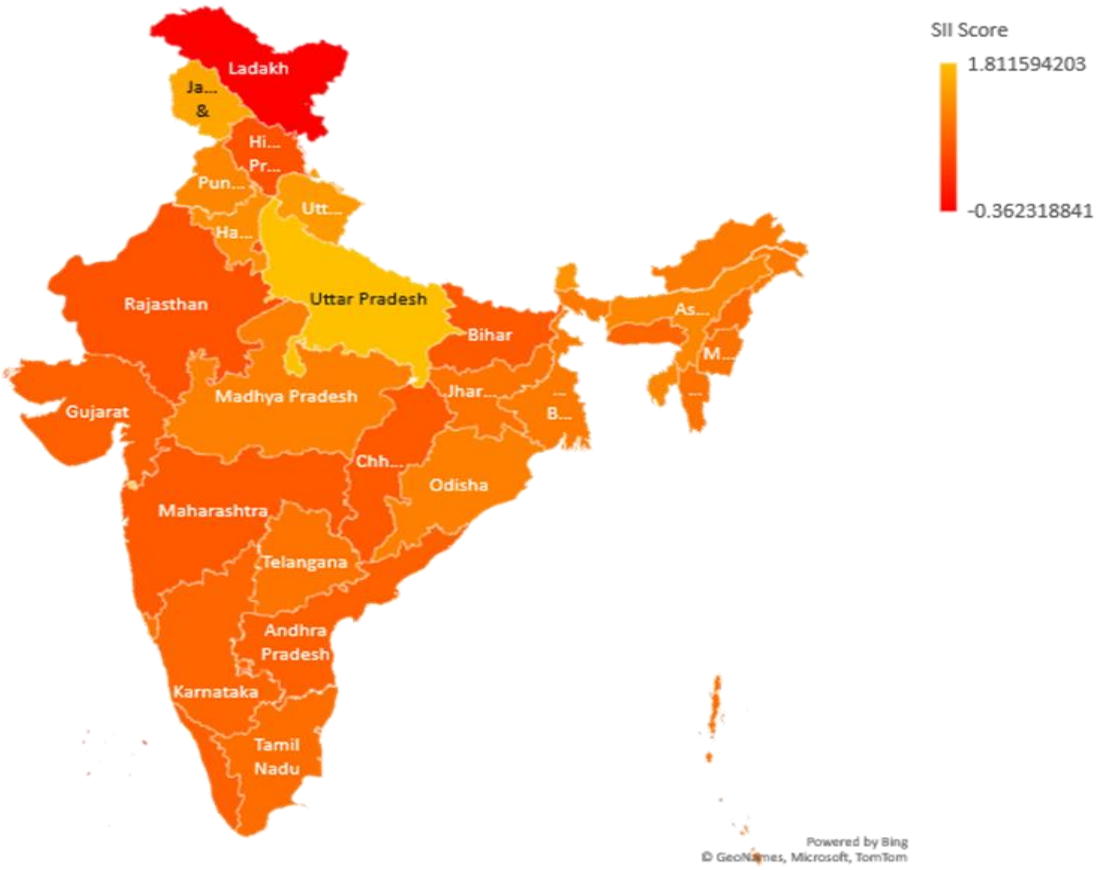
These states are improving, but at a slower rate than the national average, which may widen the gap over time.

Andhra Pradesh, Gujarat, and Kerala each have an SII of 0.72. Kerala’s slower growth is expected due to its already high score of 79, but for Andhra Pradesh and Gujarat, it indicates untapped potential.

Bihar, Chandigarh, Chhattisgarh, Dadra and Nagar Haveli, and Maharashtra all have an SII of 0.65. Bihar’s situation is particularly concerning because it has both a low base and slow growth. Maharashtra also reflects uneven development despite being economically strong.

Himachal Pradesh, Delhi, and Rajasthan each record an SII of 0.58. While Himachal’s slower growth is due to already high performance (77), Delhi’s lower growth rate highlights persistent urban challenges.

Lakshadweep (SII: 0.29) and Daman and Diu (SII: 0.22) show the slowest progress. Their small size and limited administrative capacity restrict the impact of large-scale development programmes. Ladakh records an SII of 0 due to the absence of baseline data, making direct comparison difficult.



This map shows the **State-wise Improvement Index (SII)** across India, highlighting how quickly each state is progressing relative to the national average. Lighter shades indicate higher SII values, meaning faster improvement, while darker shades represent slower growth. Northern states like Uttar Pradesh and parts of the Northeast show relatively higher improvement rates, reflecting rapid progress from lower base levels. In contrast, states such as Bihar, Maharashtra, and southern regions display moderate to slower growth. The map clearly reveals regional disparities, where some states are catching up quickly, while others, despite better initial conditions, are improving at a slower pace.

Key Highlights:

Faster than National Average (SII > 1.0):

1. **Top Performers:**
    - **Uttar Pradesh (1.81):** The highest SII score, showcasing significant growth.
    - **Uttarakhand (1.37):** A strong growth rate compared to the national average.
    - **Sikkim (1.30):** Among the leading performers in smaller states.
2. **Notable Fast-Growth States:**
    - **Haryana (1.23), Punjab (1.15), Assam (1.15), and Tripura (1.15):** These states/UTs demonstrate considerable improvement.

3. **Borderline States:**
    - **Arunachal Pradesh (1.01) and West Bengal (1.01):** Show slightly above-average performance.

Slower than National Average (SII < 1.0):

1. **Poor Performers:**
    - **Ladakh (-0.36):** Displays negative growth relative to the national benchmark.
    - **Daman & Diu (0.21) and Lakshadweep (0.28):** Show very low SII scores, indicating marginal improvements.
2. **Moderate Performers:**
    - States like **Kerala (0.72), Gujarat (0.72), and Tamil Nadu (0.87)** show modest progress but remain slower than the national average.
3. **Consistently Lagging States:**
    - **Delhi (0.57), Himachal Pradesh (0.57), and Bihar (0.65):** Exhibit limited growth, necessitating targeted intervention.

Regional Analysis:

- **Northern States:** Uttar Pradesh and Uttarakhand are leading in growth, while Himachal Pradesh and Delhi are lagging.
- **Eastern States:** Odisha, West Bengal, and Bihar show mixed performances, with Odisha performing notably better.
- **Northeastern States:** Assam, Tripura, and Arunachal Pradesh demonstrate solid growth.
- **Southern States:** Most states like Tamil Nadu and Karnataka are growing slower than the national average.
- **Union Territories:** Significant disparities exist, with Puducherry and Chandigarh lagging while Jammu & Kashmir (1.52) shows strong growth.

The Continuing Paradox: High Scorers Growing Slowly, Low Scorers Growing Fast

A clear pattern emerges where states starting from lower levels, such as Uttar Pradesh, Jammu and Kashmir, and Assam, show higher SII values, while already advanced states like Kerala, Himachal Pradesh, and Tamil Nadu grow at a slower pace. This is partly because growth is easier from a low base, but it also reflects the impact of targeted policies in weaker regions. Basic improvements in infrastructure and services can quickly raise SDG scores in such states.

Conclusion: Speed Matters as Much as Position

India's SDG performance cannot be judged only by current scores. The SII highlights differences in growth speed across states, showing that some are advancing quickly while others are lagging. For balanced development, it is important to focus not just on high-performing states but also on those growing slowly, such as Bihar, Daman and Diu, and Chhattisgarh. Addressing both position and pace will be key to achieving more inclusive and sustained development across the country.

Policy Recommendation:

1. Ladakh, Daman & Diu, and Lakshadweep require immediate attention to improve developmental indicators.
2. Further investments in Uttar Pradesh, Uttarakhand, and Haryana to sustain momentum.
3. Address disparities by formulating region-specific growth strategies for slower-growing states.

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