

## SDG IMPLEMENTATION IN KARNATAKA: INSTITUTIONAL PERFORMANCE AND STRUCTURAL CHALLENGES

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### ABSTRACT

Achieving the Sustainable Development Goals (SDGs) requires effective institutional capacity and coordinated governance at the sub-national level. In India's federal framework, states play a critical role in operationalizing the 2030 Agenda. This study examines SDG implementation in Karnataka through an institutional performance and structural challenges perspective. Using secondary data from the SDG India Index, Karnataka Economic Survey, and state budget documents, the paper evaluates governance alignment, fiscal strategy, administrative coordination, and digital monitoring systems. The findings indicate that Karnataka has made significant progress in areas such as health, clean water, and renewable energy, reflecting relatively strong institutional mechanisms. However, structural constraints—including regional disparities, fiscal pressures, environmental stress, and gender inequality—continue to influence development outcomes. The study concludes that sustained SDG achievement requires integrated governance reforms and targeted structural interventions to ensure balanced and long-term sustainable development.

**Keywords:** Sustainable Development Goals, Institutional Governance, Public Policy, Structural Challenges.

### INTRODUCTION

The adoption of the 2030 Agenda for Sustainable Development marked a global commitment to inclusive growth, environmental protection, and social equity. The seventeen Sustainable Development Goals (SDGs) provide a comprehensive framework for transforming development trajectories across nations. However, translating these global commitments into measurable outcomes requires effective governance systems at both national and sub-national levels.

In India's federal structure, state governments bear primary responsibility for implementing development policies in critical sectors such as agriculture, health, education, water supply, and rural development. Karnataka, one of India's economically advanced states, has integrated SDG targets into its planning architecture and governance processes. Its performance in the SDG India Index reflects steady progress. Nevertheless, sustainable development cannot be assessed solely through composite scores; it must also consider institutional robustness and structural transformation.

This paper evaluates SDG implementation in Karnataka by examining institutional performance mechanisms and identifying structural challenges affecting long-term sustainability.

### REVIEW OF LITERATURE

Existing scholarship on SDG implementation emphasizes the importance of institutional capacity, policy coherence, and effective monitoring systems in achieving measurable development outcomes. Studies on SDG localization in India reveal significant inter-state variation shaped by governance quality, fiscal management, and administrative efficiency. Multi-level governance integration and institutional ownership are considered essential for translating national priorities into state-level action

(Curry et al., 2023), while administrative effectiveness and resource allocation capacity significantly influence disparities in SDG performance (Unni et al., 2022).

Researchers further highlight the growing importance of digital transparency, performance-based budgeting, and cross-sectoral policy convergence in strengthening accountability (Sundarassen et al., 2023; Singh et al., 2022). Although improvements in SDG rankings are often associated with digital monitoring systems and outcome-based frameworks (NITI Aayog, 2023), structural inequalities and regional imbalances continue to persist. In Karnataka's context, while sectoral achievements are notable, enduring regional disparities, fiscal pressures, and environmental stress underscore the need for deeper institutional transformation. Limited research, however, evaluates Karnataka's SDG performance through an integrated institutional and structural lens—an analytical gap this study seeks to address.

## STATEMENT OF THE PROBLEM

While Karnataka has demonstrated measurable improvements in national SDG rankings, composite index scores do not necessarily reflect structural transformation or equitable development. Existing research predominantly focuses on sectoral achievements or comparative state performance, with limited attention to how institutional performance, fiscal sustainability, administrative coordination, and structural constraints collectively shape SDG outcomes. Persistent regional disparities, gender inequalities, environmental stress, and fiscal pressures raise important questions regarding the long-term sustainability of current development strategies. Therefore, a comprehensive institutional and structural assessment of SDG implementation in Karnataka is necessary.

## Objectives of the Study

The study aims to:

1. Examine the institutional mechanisms and governance frameworks adopted for SDG implementation in Karnataka.
2. Identify and analyze the structural challenges influencing sustainable development outcomes in the state.

## METHODOLOGY

This study is based exclusively on secondary data derived from authoritative government and institutional sources. Key data sources include the Karnataka Economic Survey, NITI Aayog's SDG India Index reports, State Budget documents, policy reports, and national development databases. A qualitative and analytical approach is employed to examine governance structures, fiscal patterns, institutional coordination, and equity outcomes. The analysis emphasizes systemic institutional performance and structural dimensions rather than isolated sectoral statistics, enabling a comprehensive assessment of SDG implementation in Karnataka.

## Institutional Mechanisms and Governance Performance: Focus on Three Key SDGs

To evaluate institutional effectiveness, the study examines SDG 3 (Good Health and Well-Being), SDG 6 (Clean Water and Sanitation), and SDG 7 (Affordable and Clean Energy), based on the SDG India Index 2023–24.

## SDG 3 (Good Health and Well-Being):

Karnataka achieved a score of approximately 77, reflecting improvements in maternal and child health indicators. The Maternal Mortality Ratio declined to 63 per 100,000 live births, indicating significant

institutional progress. Strengthened primary healthcare systems, insurance coverage expansion, and digital health monitoring have improved service delivery, although regional disparities persist.

#### **SDG 6 (Clean Water and Sanitation):**

With a score of around 89, Karnataka demonstrates strong access to drinking water and sanitation services. Effective coordination between state departments and local institutions, supported by digital monitoring mechanisms, has enhanced accountability. However, groundwater depletion and climate variability pose long-term sustainability risks.

#### **SDG 7 (Affordable and Clean Energy):**

Scoring approximately 96, Karnataka performs exceptionally well in energy access and renewable energy adoption. The state is a leading producer of solar and wind power, supported by proactive energy policies and investment frameworks. Nonetheless, financial sustainability of distribution companies and grid stability remain areas of concern.

Overall, high performance in these goals reflects effective institutional alignment, digital governance integration, and inter-departmental coordination.

### **STRUCTURAL CHALLENGES INFLUENCING SUSTAINABLE DEVELOPMENT OUTCOMES**

Despite progress, Karnataka's sustainable development trajectory is shaped by significant structural constraints. The state achieved a composite SDG score of 75 in 2023–24 and ranks among the top five major states (NITI Aayog, 2023–24), yet development remains uneven.

Regional disparities between advanced southern districts and comparatively lagging northern districts continue to affect equitable SDG outcomes. Fiscal pressures arising from welfare commitments, infrastructure expansion, and debt servicing reduce fiscal flexibility for long-term investments. Environmental vulnerabilities—including recurrent droughts, groundwater depletion, and urban ecological stress—challenge sustainability goals. Additionally, socio-economic inequalities, particularly gender disparities reflected in a relatively lower SDG 5 score (around 51), and labour market informality constrain inclusive development.

These structural constraints indicate that institutional efficiency alone is insufficient without broader socio-economic and environmental reforms.

### **FINDINGS**

The study finds that Karnataka has developed a comparatively strong institutional framework for SDG implementation, reflected in improved SDG rankings and high performance in health, water, and energy sectors. Digital monitoring systems, coordinated governance structures, and policy integration mechanisms have enhanced accountability and performance management. However, structural constraints—regional imbalances, fiscal pressures, environmental stress, and socio-economic inequalities—continue to influence development outcomes. Sustainable progress therefore depends on aligning institutional effectiveness with structural reform strategies.

### **SUGGESTIONS**

To strengthen SDG implementation, Karnataka should prioritize targeted investments in backward districts to reduce regional disparities. Fiscal planning should emphasize capital expenditure, climate resilience, and human development. Sustainable water management and climate adaptation strategies must be strengthened. Gender-inclusive policies and formal employment opportunities should be

expanded to promote inclusive growth. Continuous improvement in digital monitoring and decentralized review mechanisms can further enhance accountability and balanced development.

## CONCLUSION

Karnataka has established a relatively robust institutional framework for SDG implementation, supported by coordinated governance structures and digital monitoring systems. Its strong performance in health, water, and clean energy reflects effective policy alignment and administrative capacity.

However, sustainable development outcomes are shaped not only by governance mechanisms but also by structural realities. Regional imbalances, fiscal constraints, environmental vulnerabilities, and socio-economic inequalities remain significant challenges. Long-term SDG achievement will therefore depend on institutional resilience combined with structural reforms that promote equitable, climate-resilient, and inclusive development across all regions of the state.

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