



FROM BUDGET ALLOCATION TO DEVELOPMENT OUTCOMES: EVALUATING PUBLIC EXPENDITURE EFFECTIVENESS IN JHARKHAND STATE SINCE 2020

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Abstract

Public expenditure is one of the principal instruments through which a State government translates policy priorities into infrastructure, public services and socio-economic development. However, the size of budgetary allocation or even a high expenditure-utilization ratio does not necessarily demonstrate effective public spending. The more important question is whether public resources are converted into measurable physical outputs and, ultimately, improved development outcomes.

Against this background, the present study evaluates public expenditure effectiveness in Jharkhand since 2020 by examining the expenditure chain from budget allocation to financial execution, physical output and development outcome. The study uses secondary data from the Government of Jharkhand's budget documents and Economic Surveys, Finance and Appropriation Accounts, reports of the Comptroller and Auditor General of India (CAG), UDISE+, National Family Health Survey (NFHS), Jal Jeevan Mission (JJM) and MGNREGA-related sources. The analysis focuses on five broad development sectors—education, health, roads, drinking water and sanitation, and rural development.

The study finds that Jharkhand has experienced substantial economic and infrastructure expansion during the post-pandemic period, but expenditure effectiveness remains uneven. CAG reported savings of ₹21,819.49 crore, equivalent to 22.66 per cent of total budget provisions under grants, in 2020–21. In 2022–23, total savings reached ₹24,634.20 crore against total provision of ₹1,17,617.72 crore. At the outcome level, health indicators such as institutional births and skilled birth attendance improved between NFHS-4 and NFHS-5, while education transition indicators show continuing conversion gaps between different stages of schooling. The latest Economic Survey reports real GSDP of ₹3,03,178 crore in 2024–25 at constant 2011–12 prices and real growth of 7.02 per cent.

The study argues that public expenditure effectiveness should therefore be assessed not merely by the amount allocated or spent, but by the extent to which expenditure is translated into outputs and sustainable development outcomes. A researcher-developed Public Expenditure Effectiveness Index (PEEI) is proposed as an integrated framework for such assessment.

Keywords: Public Expenditure, Budgetary Effectiveness, Jharkhand, Financial Execution, Development Outcomes, Public Financial Management, Outcome Budgeting, PEEI

1. Introduction

Public expenditure represents the principal financial mechanism through which governments implement development policies. In a State such as Jharkhand, public expenditure assumes particular significance because the State simultaneously faces requirements relating to infrastructure, education, healthcare, drinking water, rural livelihoods, social protection and economic development.

The effectiveness of expenditure is therefore more important than expenditure volume alone. A government may increase its budget substantially, but the development impact will depend upon whether the allocation is realistically estimated; actually, released and spent; converted into intended physical outputs; and translated into measurable improvements in people's lives.



The relevant analytical chain can consequently be represented as: Budget Allocation → Financial Execution → Physical Output → Development Outcome.

During 2020–21, CAG reported total savings of ₹21,819.49 crore, representing 22.66 % of total budget provisions under grants. CAG observed that the magnitude of savings was indicative of improper budget estimation and noted persistent savings of at least ₹6,500.64 crore during each of the preceding four years.

The detailed audit table shows total provision of ₹96,278.08 crore and actual expenditure of ₹74,458.59 crore in 2020–21, leaving ₹21,819.49 crore unutilized. The issue was not confined to 2020–21. In 2022–23, total provision amounted to ₹1,17,617.72 crore while expenditure was ₹92,983.52 crore, producing savings of ₹24,634.20 crore.

At the same time, Jharkhand's economy has recorded significant post-pandemic recovery. The Jharkhand Economic Survey 2025–26 reports real GSDP of ₹3,03,178 crore in 2024–25 at constant 2011–12 prices, with real growth of 7.02 per cent during 2024–25 and a post-pandemic real GSDP CAGR of approximately 8.4 per cent for 2020–21 to 2024–25.

This creates an important research problem: To what extent has the expansion of public expenditure in Jharkhand since 2020 translated into effective financial execution, physical outputs and measurable development outcomes?

2. Review of Literature and Conceptual Framework

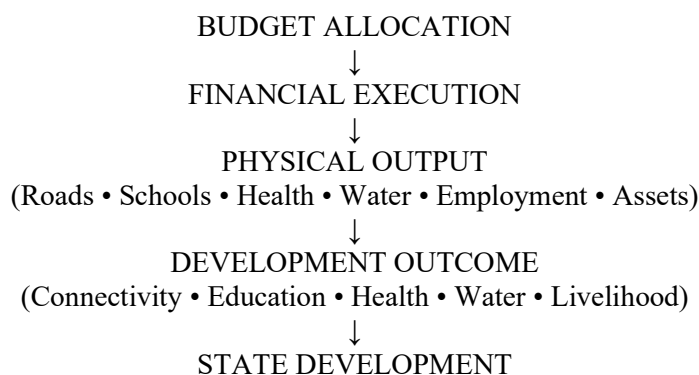
2.1 Public Expenditure Effectiveness

Public expenditure effectiveness differs from simple expenditure utilization. An expenditure ratio answers how much of the available provision was spent, whereas effectiveness asks what was achieved with the resources spent. Accordingly, Expenditure Utilization ≠ Expenditure Effectiveness.

The distinction is central to outcome-based public financial management. A department may spend 95 per cent of its budget but still produce inadequate outputs. Therefore, expenditure assessment should proceed through four stages: Allocation → Execution → Output → Outcome.

2.2 Conceptual Framework

Figure 1. Public Expenditure Effectiveness Framework



Source: Conceptual framework developed by the author.

3. Research Methodology and Data Sources

3.1 Research Design

The study adopts a descriptive, analytical and comparative research design based on secondary data. The principal financial period is 2020–21 to 2024–25. Outcome data are used according to their respective reporting frequencies and are not artificially combined with annual data.



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3.2 Data Sources

Source	Major Evidence Used
Jharkhand Finance Department	Budget documents, Budget at a Glance, Outcome Budgets
Jharkhand Economic Survey	GSDP, infrastructure and socio-economic indicators
CAG Finance Reports	Financial performance and fiscal trends
CAG Appropriation Reports	Budget provision, expenditure and savings
UDISE+	Education and transition indicators
NFHS	Health and demographic outcomes
Jal Jeevan Mission	Household tap connections and functionality
MGNREGA/CAG	Employment, assets and implementation
Finance Accounts	Actual expenditure and fiscal aggregates

3.3 Financial Execution Ratio

$BER = (\text{Actual Expenditure} / \text{Final Provision}) \times 100$. A higher BER indicates greater utilization of the final provision but is not by itself treated as proof of effectiveness.

3.4 Savings Ratio

$SR = [(\text{Final Provision} - \text{Actual Expenditure}) / \text{Final Provision}] \times 100$.

3.5 Output and Outcome Effectiveness

$OES = \sum w_i N_i$,

where N_i is the normalised indicator and w_i is the assigned indicator weight, with $\sum w_i = 1$.

Outcome assessment considers baseline improvement, target/benchmark achievement and quality/functionality.

3.6 Public Expenditure Effectiveness Index

$PEEI = 0.30FES + 0.25OES + 0.45OUtES$.

The weights are researcher-developed analytical weights and are not official Government or CAG weights.

4. Trend and Pattern of Public Expenditure in Jharkhand, 2020–21 to 2024–25

The pattern of public expenditure provides an important basis for assessing the fiscal priorities of Jharkhand. This section examines the movement of Budget Estimates (BE) and Actual Expenditure (AE) during 2020–21 to 2024–25, along with the changing composition of revenue and capital expenditure. The Budget Estimates represent the government's planned expenditure, whereas Actual Expenditure reflects the expenditure ultimately recorded during the financial year.

Table 1. Trend of Public Expenditure in Jharkhand, 2020–21 to 2024–25 (₹ crore)

Financial Year	Revenue Expenditure BE	Revenue Expenditure RE	Revenue Expenditure AE	Capital Expenditure BE	Capital Expenditure RE	Capital Expenditure AE	Total Expenditure BE	Total Expenditure RE	Total Expenditure AE
2020–21	73,316.00	67,821.00	59,263.60	13,054.00	12,186.00	14,590.25	86,370.00	80,007.00	73,853.84
2021–22	75,755.01	73,363.98	62,777.91	15,521.99	15,843.02	15,086.97	91,277.00	89,207.00	77,864.88



2022–23	76,273.31	73,966.96	66,681.64	24,827.69	25,023.23	24,956.18	1,01,101.00	98,990.19	91,637.82
2023–24	84,676.00	88,093.19	76,676.42	31,742.00	32,424.81	31,244.55	1,16,418.00	1,20,518.00	1,07,920.97
2024–25	91,831.54	98,474.22	86,447.36	37,068.46	32,244.14	30,444.37	1,28,900.00	1,30,718.36	1,16,891.73

Source: Compiled from Budget Documents, Explanatory Memoranda and Fiscal Policy Statements, Finance Department, Government of Jharkhand. (finance.jharkhand.gov.in)

The table indicates a substantial expansion in the scale of expenditure during the study period. Budgeted expenditure increased from ₹86,370 crore in 2020–21 to ₹1,28,900 crore in 2024–25, while actual expenditure increased from approximately ₹73,854 crore to ₹1,16,892 crore. Thus, the expansion in actual spending was accompanied by a broad improvement in the conversion of budget estimates into actual expenditure.

Table 2. Total Expenditure Utilization and Capital Expenditure Share

Financial Year	Total Expenditure BE (₹ crore)	Total Expenditure AE (₹ crore)	AE/BE (%)	Capital Expenditure Share of AE (%)
2020–21	86,370.00	73,853.90	85.51	19.76
2021–22	91,277.00	77,864.90	85.31	19.37
2022–23	1,01,101.00	91,637.80	90.64	27.23
2023–24	1,16,418.00	1,07,921.00	92.70	28.95
2024–25	1,28,900.00	1,16,891.73	90.68	26.04

Source: Calculations based on Finance Department, Government of Jharkhand budget data.

The expenditure utilization ratio improved from **85.51 per cent in 2020–21 to 92.70 per cent in 2023–24**, before declining marginally to 90.68 per cent in 2024–25. The improvement suggests enhanced budget execution capacity after the pandemic period. However, utilization should be regarded as an **efficiency indicator rather than a direct measure of effectiveness**, since full utilization of an allocation does not necessarily imply achievement of the intended development outcomes.

Overall, the period 2020–21 to 2024–25 was characterized by **expansion in total expenditure, substantially faster growth in capital expenditure, and improved budget utilization**. These trends demonstrate increasing fiscal effort and improving expenditure execution. The next stage of analysis therefore examines whether this increased expenditure translated into corresponding improvements in sectoral and socio-economic outcomes, which is essential for evaluating the proposed **Public Expenditure Effectiveness Index (PEEI)**.

5. Budget Execution and Financial Effectiveness

Budget execution was assessed by comparing the **Total Budget (Original + Supplementary)** with **Actual Expenditure** reported in the Appropriation Accounts. The CAG's latest State Finances Audit Report provides a consistent five-year series for Jharkhand covering 2020–21 to 2024–25.

The **Budget Execution Rate (BER)** is calculated as:

$$\text{BER} = (\text{Actual Expenditure} / \text{Total Budget}) \times 100$$



5.1 Budget Execution, 2020–21 to 2024–25

Financial Year	Total Budget	Actual Expenditure	Savings	Savings Rate	Execution Rate
2020–21	2,28,776.39	2,00,215.82	28,560.57	12.48%	87.52%
2021–22	2,39,389.22	2,17,355.42	22,033.80	9.20%	90.80%
2022–23	2,74,758.01	2,40,117.32	34,640.69	12.61%	87.39%
2023–24	3,19,379.28	2,76,224.70	43,154.58	13.51%	86.49%
2024–25	3,40,520.13	3,02,427.22	38,092.91	11.19%	88.81%

Source: Compiled from CAG, *State Finances Audit Report, Government of Jharkhand, 2024–25*, based on Appropriation Accounts of the respective years.

5.2 Trend and Interpretation

The five-year evidence indicates that Jharkhand's budget execution remained below full utilization throughout the period. The execution rate improved from **87.52% in 2020–21 to 90.80% in 2021–22**, but subsequently declined to **86.49% in 2023–24** before recovering moderately to **88.81% in 2024–25**. Thus, there was no sustained improvement in budget utilization over the period.

Savings remained substantial, ranging from **₹22,033.80 crore in 2021–22 to ₹43,154.58 crore in 2023–24**. The CAG observes that actual expenditure remained below both the total budget and revised estimates in every year during 2020–25. It further notes that the overall savings remained persistently high, indicating a structural gap between budget formulation and actual execution.

The findings therefore suggest that the principal challenge is not merely the expansion of budgetary allocations but their **effective conversion into actual expenditure**. A larger budget does not automatically imply greater development effectiveness if significant resources remain unutilized or expenditure projections are not aligned with implementation capacity.

Overall, the evidence supports the proposition that **budget allocation, budget utilization and development outcomes represent three distinct stages of public expenditure effectiveness**. Consequently, the assessment of Jharkhand's public expenditure should move beyond the size of allocations to examine whether expenditure is timely, efficiently implemented and ultimately reflected in measurable improvements in development outcomes.

6. Sectoral Expenditure-to-Output Performance

The study examines education, health, roads and connectivity, drinking water and sanitation, and rural development using sector-specific output indicators.

6.1 Education

Transition	Jharkhand, 2023–24
Primary → Upper Primary	80.5%
Upper Primary → Secondary	67.2%
Secondary → Higher Secondary	62.5%

Source: UDISE+ 2023–24. The declining transition percentages demonstrate that education effectiveness cannot be assessed solely through expenditure on infrastructure and enrolment.



6.2 Health

Indicator	NFHS-4	NFHS-5	Change
Institutional births	61.9%	75.8%	+13.9 %
Births attended by skilled health personnel	69.6%	82.5%	+12.9 %

Institutional births improved by 13.9 %, equivalent to a relative improvement of 22.46 %. Skilled attendance improved by 12.9 %, equivalent to a relative improvement of 18.53 %.

6.3 Roads and Connectivity

The Jharkhand Economic Survey 2025–26 reports total road length under the Road Construction Department increasing from 14,837 km in 2024 to 15,183.818 km in 2025.

6.4 Drinking Water and Sanitation

Drinking water demonstrates why coverage should not be confused with functionality. The analytical chain is:

Tap Connection → Functionality → Regular Supply → Adequate Quantity → Quality → Sustainable Service.

6.5 Rural Development and MGNREGA

MGNREGA represents a different form of expenditure because employment generation is partly demand-driven. The relevant performance chain is: Public Expenditure → Employment + Wages + Assets → Income Security + Rural Infrastructure. Person-days alone should not be interpreted as a complete measure of effectiveness.

7. From Outputs to Development Outcomes

Sector	Output Indicator	Outcome Indicator
Education	Schools, teachers, infrastructure	Transition, retention, learning
Health	Facilities/services	Institutional delivery, skilled attendance, health status
Roads	Road construction/network	Connectivity/accessibility
Water	Tap connections	Functionality, adequacy, quality
Rural Development	Person-days/assets	Income security, durable assets, livelihood resilience

The central distinction is: Output Achievement ≠ Outcome Achievement.

7.1 Development Context

Jharkhand's real GSDP increased to ₹3,03,178 crore in 2024–25 at constant 2011–12 prices. The Economic Survey reports 7.02 per cent real growth during 2024–25 and a post-pandemic real CAGR of about 8.4 per cent during 2020–21 to 2024–25.

Economic recovery + Infrastructure growth + Social-sector improvements + Continuing implementation gaps
 Economic growth can occur even when the public-expenditure conversion process is imperfect. Therefore, observed GSDP growth is not assumed to be exclusively attributable to public expenditure.

8. Public Expenditure Effectiveness Assessment

8.1 Financial Effectiveness Score

$$\text{FES} = 0.60\text{E} + 0.20\text{C} + 0.20\text{M}$$



Where E = expenditure execution, C = budget credibility and M = financial-management quality.

8.2 Output Effectiveness Score

$$OES = \sum w_i N_i.$$

The score uses normalized sector-specific indicators.

8.3 Outcome Effectiveness Score

$$OUtES = 0.50I + 0.30T + 0.20Q$$

where I = improvement from baseline,

T = achievement relative to target/benchmark, and

Q = quality/reliability of the indicator.

8.4 Public Expenditure Effectiveness Index

$$PEEI = 0.30FES + 0.25OES + 0.45OUtES.$$

Dimension	Weight	Purpose
Financial Effectiveness	30%	Budget execution
Output Effectiveness	25%	Physical outputs
Outcome Effectiveness	45%	Development improvement
Total	100%	Overall effectiveness

8.5 Sensitivity Analysis

$$\text{Model A – Equal Weights: } PEEI_A = 0.333FES + 0.333OES + 0.333OUtES.$$

$$\text{Model B – Outcome Dominant: } PEEI_B = 0.25FES + 0.25OES + 0.50OUtES.$$

$$\text{Model C – Financial Dominant: } PEEI_C = 0.40FES + 0.30OES + 0.30OUtES.$$

8.6 Overall Sectoral Interpretation

Sector	Financial Execution	Output Conversion	Outcome Evidence	Overall Assessment
Education	Mixed	Moderate	Mixed	Moderate
Health	Moderate	Moderate	Positive selected indicators	Moderate–Positive
Roads	Relatively strong	Strong	Positive connectivity evidence	Relatively Strong
Water & Sanitation	Variable	Expansion evident	Functionality remains critical	Mixed
Rural Development	Variable	Context-dependent	Requires demand-sensitive assessment	Mixed



9. Discussion of Findings

First, budget expansion has not eliminated execution gaps. The 2020–21 and 2022–23 CAG evidence demonstrates substantial savings, showing that allocation and actual expenditure remain materially different.

Second, financial execution alone is insufficient. A high expenditure ratio establishes that money was spent, but not whether the intended infrastructure, services or outcomes were achieved.

Third, sectoral performance is heterogeneous. Road infrastructure demonstrates a relatively visible expenditure-to-output relationship, while education and water require greater attention to quality and continuity of services.

Fourth, health indicators demonstrate measurable improvement. Institutional births increased from 61.9 per cent in NFHS-4 to 75.8 per cent in NFHS-5, while skilled birth attendance increased from 69.6 per cent to 82.5 per cent.

Fifth, economic growth and expenditure effectiveness should not be treated as identical. Jharkhand's strong post-pandemic GSDP growth is an important development achievement, but it cannot by itself establish the effectiveness of individual public expenditure programmes.

Overall: Allocation $\neq$ Execution $\neq$ Output $\neq$ Outcome. The largest policy challenge is the conversion efficiency between these stages.

10. Policy Implications and Recommendations

10.1 Improve Budget Credibility

Budget estimates should increasingly be based on historical actual expenditure, implementation capacity, project readiness, procurement timelines and realistic fund requirements. Persistent savings should trigger departmental budget reviews.

10.2 Reduce Last-minute Surrender

Quarterly expenditure monitoring should identify schemes as on track, delayed, at risk, or likely to generate savings. Early identification would provide greater scope for corrective action and lawful reallocation.

10.3 Strengthen Outcome Budgeting

Jharkhand already publishes departmental Outcome Budgets. These should be strengthened by explicitly linking Budget $\rightarrow$ Expenditure $\rightarrow$ Output $\rightarrow$ Outcome within departmental monitoring systems.

10.4 Use Sector-specific Outcome Indicators

Education: transition, retention and learning. Health: institutional delivery, skilled attendance, maternal and child health. Roads: connectivity, accessibility and road quality. Water: functionality, regularity, quantity and quality. Rural Development: employment, wage payment, asset durability and livelihood impact.

10.5 Strengthen Outcome-based Review

Poor outcome performance should not automatically result in a reduction of expenditure. The State should identify whether the gap is a funding, implementation, procurement, targeting or monitoring problem and respond accordingly.

11. Conclusion

The central conclusion of this study is that public expenditure effectiveness in Jharkhand cannot be adequately evaluated through budget size or expenditure utilization alone.

Jharkhand has experienced substantial economic recovery and expansion of infrastructure during the post-pandemic period. Real GSDP reached ₹3,03,178 crore in 2024–25 at constant 2011–12 prices, while real growth was 7.02 per cent.



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At the same time, CAG evidence demonstrates continuing weaknesses in budget execution and management. In 2020–21, ₹21,819.49 crore remained unutilized, representing 22.66 per cent of total budget provisions under grants. In 2022–23, savings reached ₹24,634.20 crore against total provision of ₹1,17,617.72 crore.

The sectoral evidence presents a differentiated picture. Road infrastructure provides comparatively strong evidence of conversion from expenditure into physical assets and connectivity. Health indicators show positive movement across important maternal-health indicators. Education demonstrates the need to move beyond school infrastructure and expenditure toward transition, retention and learning. Water and sanitation demonstrate the difference between coverage and functional service delivery. Rural development requires a multidimensional assessment.

The study therefore rejects the simplified proposition: More Public Spending = Better Development. Instead, it proposes: Effective Public Expenditure = Financial Execution + Physical Output + Development Outcome, with development outcomes receiving the greatest analytical weight.

The proposed Public Expenditure Effectiveness Index provides a structured framework for examining this conversion process. It is researcher-developed and should be interpreted alongside sector-specific indicators and sensitivity analysis.

The most important policy implication is not simply that Jharkhand should spend more. Rather, the State needs to ensure that each additional rupee moves effectively through the expenditure chain: ₹1 Allocated → ₹1 Effectively Executed → Useful Output → Measurable Outcome.

The transition from budget-centric management to outcome-centric public financial management should consequently become a central objective of Jharkhand's development strategy.

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