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Institute for Energy Economics
and Financial Analysis

A green budgeting framework for Jharkhand

Tracking and realigning public expenditure to support a sustainable Just Transition

Acknowledgements

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Key findings

Jharkhand can use green budgeting to track how much of its annual spend supports climate goals versus fossil fuel lock-in. Aligning the proposed 'green budgeting framework' with the draft Framework of India's Climate Finance Taxonomy strengthens policy consistency and credibility.

The framework is built around six objective areas: Climate mitigation; climate adaptation and resilience; natural capital protection; resource efficiency and circular economy; sustainable mobility and urban systems; and Just Transition and coal district resilience. These reflect international green budgeting practices and priorities specific to Jharkhand.

A green budgeting cell within Jharkhand's Department of Finance, supported by the Task Force on Sustainable Just Transition and an independent expert panel, will provide a credible governance structure.

Starting with an annual green budget statement and a green budget portal, Jharkhand can use the framework to make green budgeting not just a reporting exercise, but also a tool that informs medium-term fiscal planning, public investment, and policy decisions.

Executive summary

Jharkhand presents a strong case for adopting and institutionalising green budgeting practices, given its resource-rich economy, dependence on fossil fuel, and increasing exposure to climate, environmental, and transition-related risks. As the state seeks to balance economic growth and livelihoods with a gradual shift towards a more resilient, low-carbon, and inclusive development pathway, a 'green budgeting framework' can help align fiscal policy with environmental priorities, improve transparency in public expenditure, and strengthen long-term economic resilience.

Green budgeting integrates climate and sustainability considerations into budgetary processes and public financial management, drawing on international practices and frameworks developed by the European Union (EU) and Organisation for Economic Co-operation and Development (OECD), among others. This report proposes a phased framework tailored to Jharkhand's institutional and development context and aligned with the draft 'Framework of India's Climate Finance Taxonomy', to improve expenditure tracking, identify environmentally relevant and harmful spending, and strengthen access to green and climate finance.

The proposed framework is built around six thematic objectives that reflect both international green budgeting practices and priorities specific to Jharkhand.

Objectives	Description
Climate mitigation	Reducing greenhouse gas (GHG) emissions and supporting low-carbon development
Climate adaptation and resilience	Strengthening resilience to climate risks and shocks
Natural capital protection	Conserving and restoring ecosystems, biodiversity, and land resources
Resource efficiency and circular economy	Improving resource efficiency, promoting circular economy and recycling, reducing waste, and preventing pollution.
Sustainable mobility and urban systems	Promoting low-emission transport and sustainable urban development
Just Transition and coal district resilience	Supporting equitable transition in coal-dependent regions

Tagging methodology

A key feature of the framework is a budget tagging methodology that classifies expenditures, grouped into five categories, based on their environmental relevance.

Tag category	Description
Green positive (G+)	Activities with direct environmental or climate benefits
Transition enabling (T)	Activities supporting structural transition or legacy management
Enabling/systemic (E)	Institutional, governance, and system-strengthening activities
Neutral (N)	Activities with no significant positive or negative environmental impact
Brown/negative (B)	Environmentally harmful or carbon-intensive activities

Recognising that many public schemes have mixed objectives, the green budgeting framework for Jharkhand adopts a proportional classification approach instead of a binary green/non-green system. Activities are assessed and assigned coefficients across five relevance bands.

Relevance band	Coefficient range	Description
High relevance	76–100%	Strong and direct environmental contribution
Medium relevance	51–75%	Significant environmental benefit alongside other objectives
Low relevance	26–50%	Moderate or secondary environmental benefits
Marginal relevance	5–25%	Limited or incidental environmental benefits
Non-green	<5%	Negligible or no environmental contribution

This approach allows departments to more accurately estimate the environmental contribution of individual scheme components and avoids overstatement or understatement of green expenditure.

To further strengthen policy relevance, the framework introduces a “Just Transition flag”, applied in addition to the primary budget tag. This binary flag identifies expenditures that directly support coal districts, fossil fuel-dependent communities, displaced workers, or vulnerable populations affected by structural economic shifts. This additional layer enables policymakers to monitor not only the scale of green expenditure but also the extent to which public finance supports equitable and regionally targeted transition outcomes.

Institutional arrangements and phased implementation

The proposed institutional framework establishes a clear governance structure to embed green budgeting within Jharkhand's existing public financial management system. The Department of Finance will serve as the nodal agency, leading the implementation of the green budgeting framework through the issuance of budget guidelines, consolidation of departmental submissions, and publication of the annual green budget statement. A dedicated green budgeting cell, functioning as a project management unit (PMU) within the Department of Finance, will provide the technical backbone for implementation by developing the tagging methodology, supporting line departments through continuous handholding and capacity building, managing data systems and the green budget portal, and ensuring the quality and consistency of green budgeting information.

The framework promotes a whole-of-government approach by clearly defining the complementary roles of key institutions. The Department of Planning and Development will integrate green budgeting into state planning and medium-term development strategies, while the Department of Forest, Environment and Climate Change will provide technical guidance to ensure alignment with environmental policies and climate objectives. Line departments will be responsible for scheme-level expenditure tagging, reporting, and monitoring, supported by departmental focal points to strengthen ownership and institutional capacity across government.

The Task Force on Sustainable Just Transition will play a key role in guiding the implementation of the green budgeting framework by identifying priority sectors, promoting capacity building, facilitating stakeholder engagement, and fostering knowledge sharing. To strengthen technical rigour and long-term credibility, the framework also proposes setting up an independent expert panel that will provide technical and strategic support to both the Department of Finance and the task force. The panel will undertake periodic reviews of the methodology, assess the quality and consistency of expenditure tagging, and recommend methodological enhancements and analytical studies to support the continuous improvement of the framework. Together, these institutional arrangements will strengthen coordination, transparency, and evidence-based decision making, enabling Jharkhand to implement a robust, credible, and scalable green budgeting framework aligned with national priorities and international good practices.

Implementation is proposed through a roadmap aligned with international best practices, and structured across three stages: Essential, developed, and advanced. The ‘essential’ stage focuses on introducing basic expenditure tagging, piloting the methodology in four departments, and preparing an initial green budget statement. The ‘developed’ stage expands coverage across 12 departments, refines tagging methodologies, introduces green budgeting portal, and formalises institutional arrangements. The ‘advanced’ stage integrates green budgeting into medium-term expenditure frameworks, investment decision-making and independent evaluation.

Accountability and transparency

Accountability and transparency are embedded as core design principles. The framework recommends the annual publication of a green budget statement alongside the state budget, supported by a green budget portal that would make methodologies, classifications, and non-sensitive datasets publicly accessible. It also proposes an independent expert panel to periodically review methodologies and outputs. Over time, Jharkhand may consider external assurance mechanisms, including audits of methodology and process integrity.

The way forward

Gradually, Jharkhand can move toward a stage where green budgeting is not only a reporting exercise but also one that informs medium-term fiscal planning, public investments, and policy choices. Integrating green budgeting into routine governance processes would improve resource

allocation while positioning the state as a leader among Indian states in financing a just and sustainable transition.

The framework is intended as a practical starting point that can evolve with implementation experience, stakeholder feedback, stronger data systems, and national policy developments. With phased implementation and strong institutional ownership, Jharkhand has an opportunity to establish itself as a frontrunner in green public financial management and Just Transition financing in India.

Introduction

Across the world, governments are increasingly recognising that traditional public financial management systems are not adequately equipped to respond to climate change, environmental degradation, and sustainability challenges. As climate risks intensify and the scale of investment required for mitigation and adaptation grows, fiscal policy and budgetary decisions are emerging as critical levers for achieving environmental and development objectives. In response, many countries are reforming their public financial management frameworks to integrate environmental sustainability into the core of fiscal planning, budget formulation, execution, and reporting. Green budgeting has emerged as a key instrument within this broader reform agenda.

At the international level, the European Union (EU) has been at the forefront in institutionalising green budgeting as part of its commitment to the European Green Deal and climate neutrality by 2050.[1] The EU Green Budgeting Reference Framework[2] emphasises the systematic identification and classification of budgetary expenditure based on its environmental and climate relevance. It promotes the use of budget tagging, ex-ante and ex-post impact assessments, and transparent reporting to ensure that public spending is aligned with climate mitigation, adaptation, and broader environmental objectives. Importantly, the EU approach recognises that not all expenditures are purely green or brown and, therefore, encourages proportional attribution and the application of the 'Do-No-Significant-Harm' (DNSH) principle to improve the credibility of classifications.

Complementing the EU's approach, the Organisation for Economic Co-operation and Development (OECD) has created a green budgeting framework[3] that provides a broader public financial management perspective. The OECD framework identifies four core pillars[4] necessary for effective green budgeting. The first, strategic alignment, focuses on ensuring that fiscal policies and budgets are consistent with national climate and environmental goals. The second emphasises the use of evidence-based tools, such as expenditure tagging, cost-benefit analysis, and risk assessment, to inform budgetary decisions. The third pillar highlights transparency and accountability through public reporting. The final pillar underlines the importance of an enabling environment, including institutional capacity, data systems, and coordination mechanisms across government.

Several countries across different income levels and institutional contexts have adopted green budgeting practices tailored to their national circumstances. France introduced a green budgeting methodology[5] to assess the environmental impact of all budgetary expenditures, covering climate, biodiversity, and pollution. Ireland has implemented climate budgeting to evaluate the consistency of

[1] European Commission, The European Green Deal, 2019.
[2] European Union, European Union Green Budgeting Reference Framework, May 2023.
[3] Organisation for Economic Co-operation and Development (OECD), Green budgeting, OECD, 2022.
[4] Organisation for Economic Co-operation and Development (OECD), Green Budgeting in OECD Countries, OECD, 2021.
[5] Organisation for Economic Co-operation and Development (OECD), France Green Budgeting Methodology, OECD.

public spending with its carbon budgets.[6] Emerging economies such as Indonesia[7] and Mexico[8] have adopted climate budget tagging systems to track climate-related expenditure and support access to international climate finance. These demonstrate that green budgeting is not a one-size-fits-all tool, but a flexible framework that can be adapted to different fiscal structures, development priorities, and institutional capacities.

The Indian context and emerging foundations for green budgeting

In India, the integration of climate and environmental considerations into public finance has increasingly gained policy attention over the past decade. While India does not yet have a formal national green budgeting framework, several initiatives at the national level have laid a strong foundation for such an approach. These initiatives reflect a growing recognition that achieving India's climate commitments and sustainable development goals will require systematic alignment of public expenditure with environmental priorities.

A recent key development is the introduction of a draft Framework of India's Climate Finance Taxonomy[9], released by the Ministry of Finance, Department of Economic Affairs. The draft taxonomy seeks to define what constitutes environmentally sustainable economic activity in the Indian context, covering sectors such as energy, transport, water, agriculture, industry, and waste management. Unlike some international taxonomies, the Indian taxonomy explicitly recognises the role of transition activities and development needs, reflecting the country's stage of economic development and sectoral realities. Although primarily designed to guide private capital and green finance, the draft taxonomy also provides a useful reference for classifying public expenditure and assessing its environmental relevance.

Institutionally, the Ministry of Finance has established the Climate Change Finance Unit[10], which plays a central role in coordinating climate finance-related initiatives and supporting the integration of climate considerations into fiscal policy. The unit has been involved in tracking climate expenditure, engaging with international climate finance mechanisms, and supporting analytical work on climate fiscal risks. These efforts signal a gradual shift towards embedding climate considerations within the public finance system.

At the sub-national level, some Indian states have begun experimenting with climate or green budgeting practices. Kerala[11] and Assam[12] have introduced climate budget statements that track

[6] Institute for Energy Economics and Financial Analysis (IEEFA), Analysing green budget frameworks: Lessons from global practices, November 2025.
[7] United Nations Development Programme (UNDP), Strengthening Indonesia's Climate Finance Governance through Climate Budget Tagging and Green Sukuk Issuance, August 2021.
[8] International Monetary Fund, Leveraging Public Budgets for the Sustainable Development Goals: The Case of Mexico, January 2021.
[9] Press Information Bureau (PIB), Draft Framework of India's Climate Finance Taxonomy, May 2025.
[10] Press Information Bureau (PIB), Climate Change Finance Unit, August 2018.
[11] Kerala Budget, Environment Budget 2025-26, Government of Kerala, 2025.
[12] Assam Legislative Assembly Digital Library, Green Budget 2025-26, Government of Assam, 2025.

climate-related expenditure across departments. These initiatives, while varying in scope and methodological rigour, demonstrate growing interest among states in using budget processes to support climate action. They also highlight the potential for states to act as laboratories for innovation in green public financial management, tailored to local development and environmental priorities.

Jharkhand's context and the case for green budgeting

Jharkhand presents a compelling case for the adoption of a structured green budgeting framework. The state is among India's most resource-rich regions, with significant coal reserves, extensive forest cover around 30% of its geographical area[13], and a large rural and tribal population dependent on natural resources for livelihoods. At the same time, Jharkhand faces considerable environmental stress, including land degradation from mining, deforestation pressures, air and water pollution, and growing vulnerability to climate-related risks such as heat stress, erratic rainfall, and water scarcity.[14]

Economically and fiscally, Jharkhand's development model has been closely linked to coal mining and associated industries. Coal royalties, mining-related economic activity, and fossil fuel-based power generation have historically contributed to state revenues, employment, and industrial growth. However, this dependence also exposes the state to long-term transition risks as India and the global economy move towards cleaner energy systems. A gradual decline in coal demand, tightening environmental regulations, and increasing climate commitments are likely to have significant implications for Jharkhand's fiscal stability, regional economies, and employment patterns, particularly in coal producing districts.

Figure 1: Benefits of green budgeting

Source: IEEFA analysis

[13] Department of Forest, Environment & Climate Change, Jharkhand forests at a glance, Government of Jharkhand, 2023.
[14] Omkar Parishwad et al, Assessment of Environmental Impacts using spatio-temporal analysis of satellite imagery, for Coal mining in Jharkhand, India, International Conference on Recent Advances in Civil and Environmental Engineering, 2017.

In this context, green budgeting can play a transformative role in Jharkhand by strengthening how the state plans, tracks, and prioritises its development spending.

By systematically identifying and monitoring expenditures linked to green activities, green budgeting enables more targeted allocation of resources and encourages departments to integrate sustainability into their core functions. This, in turn, supports the growth of green industries and job creation, while gradually reducing the state's dependence on fossil fuels and enhancing long-term economic resilience. At the same time, a clear and credible green budgeting framework signals policy direction and commitment to investors, helping attract climate-aligned finance. It also ensures that Jharkhand's development pathway is aligned with national and global green priorities, positioning the state as a proactive participant in India's broader energy transition.

The adoption of a green budgeting framework is not about restricting development expenditure, but about improving the quality, resilience, and long-term sustainability of public spending. For Jharkhand, it provides an opportunity to proactively manage the economic and fiscal implications of environmental change, while advancing inclusive growth and safeguarding the livelihoods of its people.

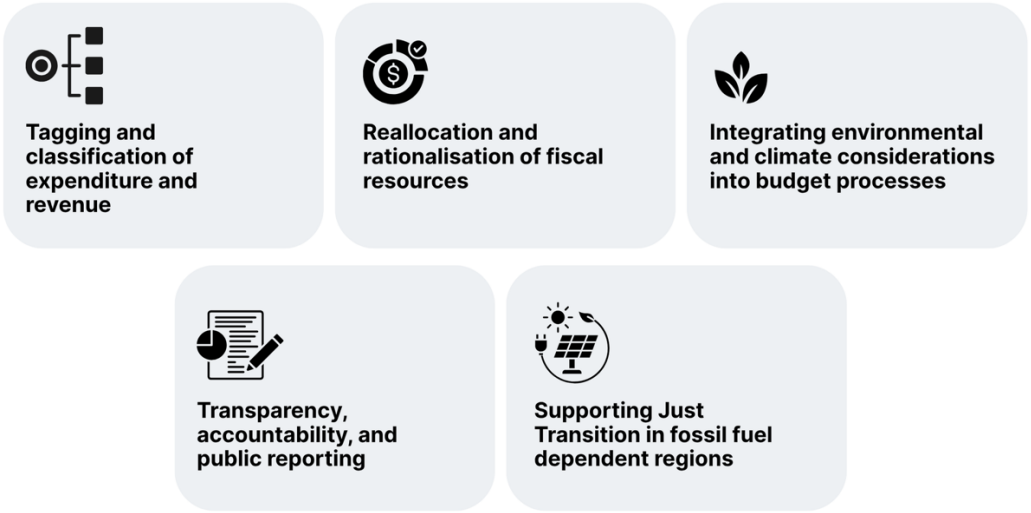
Objectives and scope of green budgeting framework

The green budgeting framework for Jharkhand is intended to function as a strategic public financial management instrument that integrates environmental sustainability, climate resilience, and Just Transition considerations into the core of the state's budgetary processes. Rather than operating as a parallel or standalone exercise, the framework is designed to be embedded within existing budget formulation, execution, and reporting systems. Its purpose is to strengthen the quality, coherence, and long-term sustainability of public expenditure and revenue decisions, while supporting Jharkhand's broader development priorities.

By systematically assessing the environmental implications of Jharkhand's fiscal policies and budgetary allocations, the framework enables the state to move from ad hoc or project-based climate spending towards a more structured and evidence-based approach. Over time, it also supports a gradual shift in public finance from carbon-intensive activities towards investments that enhance resilience, protect natural capital, and promote inclusive economic transformation.

Objectives of green budgeting

Figure 2: What green budgeting seeks to achieve



Source: IEEFA analysis

Tagging and classification of expenditure and revenue

A core objective of the green budgeting framework is to introduce systematic tagging and classification of budgetary items based on their environmental and climate relevance. This involves categorising both expenditures and revenues as 'green positive' (G+), 'transition' (T), 'enabling' (E), and 'brown/negative' (B), using a transparent and consistent methodology aligned with international best practices and national guidance.

On the expenditure side, tagging enables the state to identify spending that delivers direct environmental benefits, supports the transition away from fossil fuel dependence, or strengthens enabling systems such as planning, data, and institutional capacity. It also helps distinguish expenditure that is environmentally neutral from that which may undermine sustainability objectives. On the revenue side, the framework extends beyond conventional tax collection to include tax expenditures, such as exemptions, rebates, or concessional rates, which represent revenue foregone and can have significant environmental implications.

This classification provides a clearer picture of how fiscal instruments shape environmental outcomes and allows policymakers to assess the cumulative impact of budgetary decisions. Importantly, the tagging approach recognises that many activities contribute only partially to environmental objectives and, therefore, allows for proportional classification, improving the credibility and usefulness of the analysis.

Reallocation and rationalisation of fiscal resources

Beyond tracking and classification, the framework seeks to support the judicious allocation of public resources toward environmental sustainability, sustainable economic opportunities, and livelihood diversification. The insights generated through green budget tagging can help policymakers better understand how public expenditure contributes to environmental and development objectives and identifies opportunities to strengthen investments in sectors that enhance resilience, resource efficiency, circular economy and inclusive growth.

For Jharkhand, this objective is particularly important in the context of economic diversification and Just Transition. The framework can help inform decisions on directing public resources toward emerging sectors, green infrastructure, sustainable agriculture, natural resource management, skill development, and alternative livelihood opportunities. Over time, green budgeting can support more informed fiscal decision-making, ensuring that public spending contributes to both environmental outcomes and long-term economic development while addressing the needs of vulnerable communities and transition-affected regions.

Integrating environmental and climate considerations into budget processes

A core objective of the framework is to embed climate mitigation, adaptation, and resilience priorities across all sectors of government through the budget planning and decision-making process. Green budgeting provides a structured approach for departments to assess how their expenditures contribute to climate and environmental objectives and to incorporate these considerations into annual budget proposals and resource allocation decisions.

This integration helps ensure consistency between the state's fiscal decisions and policy commitments, such as the Jharkhand State Action Plan on Climate Change (SAPCC), sectoral development strategies, and long-term transition objectives. The integration also supports improved coordination between departments whose mandates have significant environmental implications, such as energy, mining, forests, rural development, urban development, transport, and water resources.

By introducing a common analytical lens, the framework helps departments assess how their spending contributes to climate actions, and by making environmental considerations explicit within the budget process, it reduces the risk of fragmented or contradictory policy interventions.

Transparency, accountability, and public reporting

A key objective of the green budgeting framework is to improve the accountability and effectiveness of public spending through clear environmental tagging, systematic tracking, and regular reporting of budgetary expenditures. The framework enables departments to identify and disclose how public

resources contribute to climate, environmental, and Just Transition objectives, thereby strengthening evidence-based decision-making and resource allocation.

Standardised tagging and reporting practices will enhance transparency across the budget cycle and provide policymakers, legislators, and stakeholders with a clearer understanding of environmental spending patterns. Over time, the framework can support independent review and evaluation of methodologies, expenditure classifications, and outcomes, helping to strengthen credibility, improve expenditure effectiveness, and ensure that public resources deliver intended environmental and development benefits.

Supporting Just Transition in fossil fuel-dependent regions

Given Jharkhand's economic reliance on fossil fuel, a critical objective of the framework is to support a just and equitable transition for fossil fuel-dependent regions, workers, and communities. The framework incorporates tools to track and align expenditure that account for livelihood diversification, skill development, social protection, mine closure, and land restoration. This ensures that climate action and fiscal reforms are accompanied by measures that address social and regional disparities.

In this regard, the framework recognises the importance of aligning state budgetary resources with other funding channels, such as the District Mineral Foundation (DMF) funds and corporate social responsibility (CSR) spending. By providing a common analytical framework, green budgeting can help improve convergence between these instruments, reduce duplication, and enhance the overall effectiveness of spending in coal-bearing districts. This integrated approach strengthens the state's ability to manage the socio-economic dimensions of the transition in a planned and inclusive manner.

Scope of the green budgeting framework

The scope of the green budgeting framework is intentionally broad, reflecting the diverse fiscal instruments and institutional actors that influence environmental outcomes in Jharkhand. The framework covers budgetary and extra budgetary funds under the Consolidated Fund of State, including plan and non-plan expenditure, centrally sponsored schemes with state co-financing, and relevant off-budget instruments.

The framework also recognises the role of subnational entities, such as municipalities and district administrations, in delivering environmentally relevant services and infrastructure. Where feasible, green budgeting principles can be applied to urban local bodies and district-level planning processes to strengthen vertical integration.

Finally, the scope explicitly includes revenue foregone through exemptions and concessions, acknowledging that these exemptions can significantly influence environmental behaviour and fiscal outcomes. By encompassing both sides of the budget, the framework provides a comprehensive view of how public finance shapes Jharkhand's environmental and transition trajectory.

Green budget tagging methodology

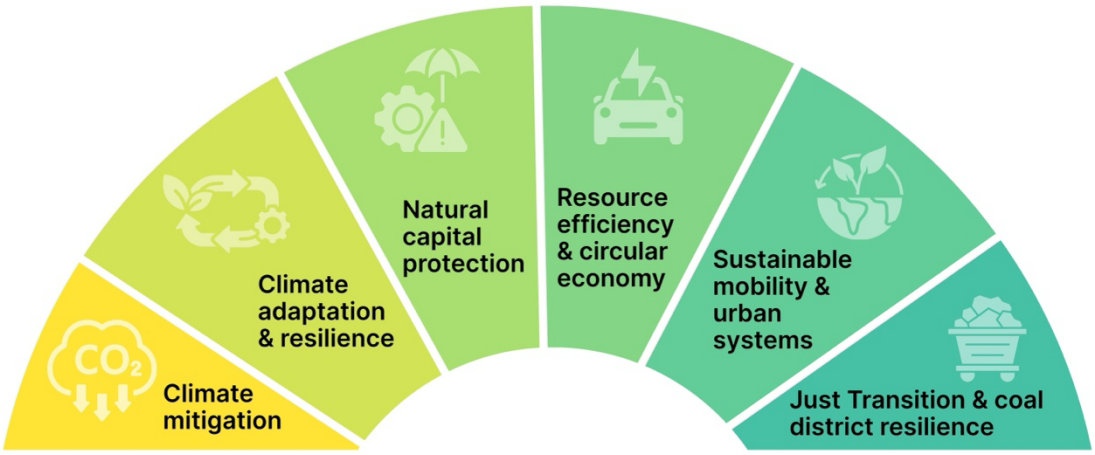
The green budgeting framework for Jharkhand is anchored in a clearly defined set of environmental and transition objectives, along with a transparent and consistent tagging methodology. Together, these elements enable the state to systematically assess how public expenditure and fiscal instruments contribute to environmental sustainability, climate resilience, and a Just Transition away from fossil fuel dependence.

This section sets out the core objectives guiding green budget tagging and describes the classification categories and methodological safeguards used to ensure credibility, comparability, and policy relevance.

Environmental and transition objectives: Green budgeting themes

Green budgeting in Jharkhand is not limited to climate mitigation alone. Given the state's development profile, ecological sensitivity, and dependence on fossil fuel-linked revenues, the framework adopts a multidimensional objective structure. These objectives are aligned with the EU Green Deal, OECD green budgeting principles, the draft Framework of India's Climate Finance Taxonomy, and Jharkhand's own development priorities.

Figure 3: Green budgeting themes



Source: IEEFA analysis

Climate mitigation

Climate mitigation objectives focus on reducing GHG emissions and lowering the carbon intensity of Jharkhand's economy over time. Budgetary interventions tagged under this objective include investments that directly support renewable energy generation, energy efficiency improvements, grid modernisation, electrification of end uses, and low-carbon industrial processes. In Jharkhand's

context, mitigation also encompasses measures to reduce fugitive emissions from mining activities, improving efficiency in thermal power operations where relevant, and promoting alternative clean energy solutions in rural and tribal areas. By tagging mitigation-related expenditures, the state can assess the degree to which fiscal policy supports India's Nationally Determined Contributions (NDCs) and long-term decarbonisation goals.

Climate adaptation and resilience

Jharkhand is increasingly exposed to climate-related risks, including heat stress, erratic rainfall, droughts, forest fires, and water scarcity. Climate adaptation and resilience objectives capture expenditures that enhance the capacity of communities, ecosystems, and infrastructure to withstand and recover from climate shocks. This includes investments in climate-resilient agriculture, watershed management, drought-proofing, resilient rural infrastructure, disaster risk reduction systems, and urban flood management.

Tagging adaptation-related spending is particularly important for Jharkhand, as these expenditures often cut across sectors and are not always explicitly labeled as "climate" interventions in budget documents.

Natural capital protection

Natural capital protection recognises the economic and social value of Jharkhand's forests, land, water bodies, and biodiversity. With more than one-third of its geographical area under forest cover, the state's ecological assets are central to livelihoods, climate regulation, and long-term development. Budgetary measures under this objective include afforestation, forest conservation, biodiversity protection, mine reclamation, soil restoration, and sustainable land-use planning. Tagging these expenditures enables the state to assess whether fiscal policies are reinforcing or undermining ecosystem integrity, particularly in mining-affected and tribal regions.

Resource efficiency and circular economy

This objective focuses on improving the efficient use of energy, water, materials, and other natural resources while promoting circular economy practices, recycling, waste reduction, and pollution prevention. Relevant expenditures may include investments in waste management, resource recovery, circular economy initiatives, resource-efficient technologies, wastewater treatment, pollution control measures, and sustainable consumption practices. For Jharkhand, strengthening resource efficiency and reducing pollution can improve environmental quality, public health, and long-term economic productivity, particularly in urban, industrial, and mining-intensive regions. Systematic tracking of such expenditures enables better assessment of efforts to reduce environmental pressures while maximising the value derived from natural and economic resources.

Sustainable mobility and urban systems

Rapid urbanisation in Jharkhand has increased pressure on transport systems, housing, and municipal services. This objective covers budgetary interventions that promote sustainable mobility and low-carbon, resource-efficient urban development. Examples include public transport investments, non-motorised transport infrastructure, electric vehicle (EV) charging networks, energy-efficient buildings, and integrated urban planning. Tagging spending under this objective helps assess the alignment of urban development trajectories with long-term sustainability and livability goals.

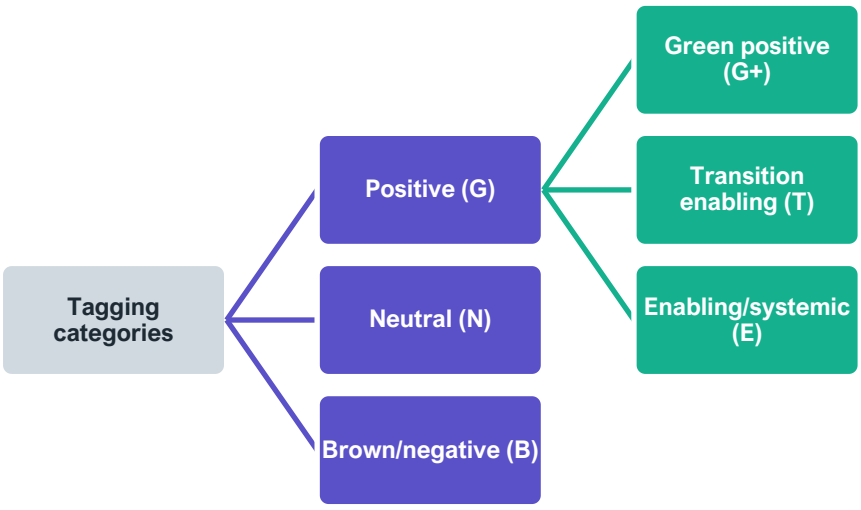
Just Transition and coal district resilience

This objective captures expenditures that support economic diversification, worker reskilling, social protection, and community development in coal-dependent districts. It includes programmes financed through DMFs, skill development schemes, MSME support, livelihood diversification, and infrastructure investments aimed at reducing regional disparities. By explicitly embedding Just Transition objectives into budget tagging, the framework ensures that climate and environmental actions are aligned with social equity and economic inclusion.

Tagging categories

To operationalise these objectives, the framework introduces a standardised set of tagging categories to classify budgetary items based on their environmental and transition relevance. The categories are mutually exclusive at the primary level but allow for proportional attribution to reflect partial contributions.

Figure 4: Green budgeting tagging categories



Source: IEEFA analysis

Table 1: Tagging definitions and applications

Tag category	Label	Definitions and applications
Green positive	G+	Green positive expenditures are those that deliver direct and measurable environmental or climate benefits and are fully aligned with one or more environmental objectives. These expenditures would not have occurred without an explicit environmental or climate rationale. Examples include renewable energy investments, climate-resilient irrigation systems, afforestation programmes, and pollution control infrastructure. G+ expenditures form the core of the green budget and are expected to demonstrate strong alignment with the draft Framework of India's Climate Finance Taxonomy and relevant international benchmarks.
Transition enabling	T	Transition enabling expenditures support the socio-economic transition away from fossil fuel dependence, particularly in coal-producing regions. While these expenditures may not directly reduce emissions or environmental damage, they play a critical role in enabling an equitable transition. Examples include worker reskilling programmes, alternative livelihood schemes, MSME development in coal districts, and social protection measures. This category is particularly important for Jharkhand, as it recognises the fiscal effort required to manage transition risks and maintain social stability.
Enabling/ systemic	E	Enabling or systemic expenditures refer to investments that strengthen the institutional, informational, and governance foundations necessary for effective environmental and climate action. These include expenditures on data systems, climate planning, capacity building, monitoring frameworks, and policy development. While their environmental impact is indirect, such expenditures are essential for the long-term effectiveness and credibility of green budgeting and climate policy implementation.
Neutral	N	Neutral expenditures are those that do not have a significant positive or negative impact on environmental or climate objectives. Most general administrative spending and social sector expenditures without environmental linkages fall into this category. Tagging expenditures as neutral helps maintain analytical clarity and prevents overstatement of green spending.
Brown/negative	B	Brown expenditures are those that are environmentally harmful or those that reinforce carbon-intensive or polluting activities. These may include fossil fuel subsidies, environmentally damaging infrastructure, or activities that lead to deforestation or pollution. For political and

		practical reasons, brown tagging is intended primarily for internal analysis and policy reform rather than public disclosure in the initial phases. Identifying brown expenditures is nevertheless critical for informing fiscal reform and expenditure rationalisation over time.

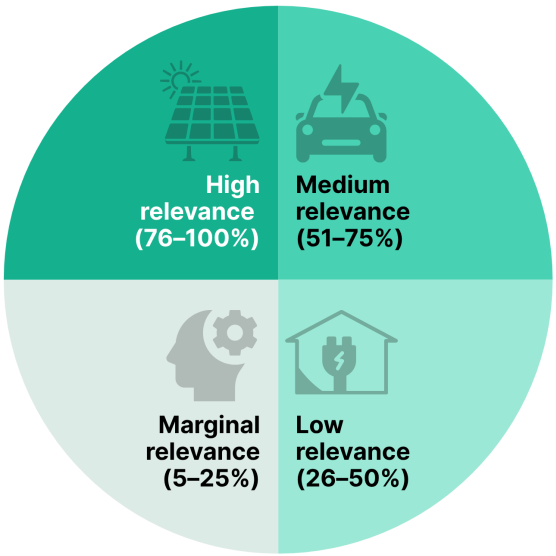
Do no significant harm (DNSH) screening

All expenditures classified as G+ or T are subject to a DNSH screening. This ensures that activities contributing to one environmental objective do not cause material harm to other objectives. DNSH screening strengthens alignment with international standards and reduces the risk of greenwashing.

Proportional classification using coefficients

Recognising that many budget lines have mixed objectives and cannot be accurately classified using a binary approach, the green budgeting framework adopts a proportional classification methodology based on relevance bands. Expenditures are assigned coefficients within defined ranges.

Figure 5: Proportional classification in green budgeting



Source: IEEFA analysis

This allows departments to reflect the actual share of environmental benefit within a scheme component, rather than overstating or understating its impact. Activities with less than 5% environmental contribution are treated as non-green (0%) and are not counted toward green expenditure. This graduated approach improves accuracy, supports comparability across departments, and aligns with international best practices by capturing the spectrum of environmental relevance in public spending.

Table 2: Criteria and assessment rules of proportional classification

Category	Relevance band	Activity-level criteria	Assessment rule	Illustrative examples (scheme components)
High relevance (green-aligned)	**76–100%**	Activities that directly and substantially contribute to core environmental objectives: • Significant GHG emission reduction or avoidance • Strong climate adaptation or resilience outcomes • Ecosystem restoration or conservation • High resource efficiency or circular economy outcomes • Activities that must not create material environmental harm	Majority of the component (>75%) is explicitly designed for environmental outcomes and delivers measurable impact	• Solar pumps, rooftop solar, mini-grids • Large-scale afforestation and ecosystem restoration • Mine closure and land reclamation • Wastewater treatment and reuse • Energy efficiency retrofits (public buildings, irrigation)
Medium relevance (transition-aligned)	**51–75%**	Activities where environmental objectives are important but combined with economic or social goals: • Clear environmental co-benefits • Outcomes depend on implementation design • Partial alignment with green taxonomy sectors	Around half to three-fourths of the component contributes to environmental benefits	• Micro-irrigation and water-use efficiency programmes • Urban transport projects with partial EV adoption • Grid upgrades supporting renewable integration • Sustainable agriculture combining productivity and conservation • Industrial energy efficiency improvements
Low relevance	**26–50%**	Activities with limited but identifiable environmental benefits:	Less than half of the component contributes to	• Rural infrastructure with some green features

		• Environmental gains are secondary or indirect • Benefits depend on complementary measures	environmental outcomes	(drainage, plantation) • Housing schemes with basic energy efficiency provisions • Livelihood programmes with partial green job components • Irrigation expansion with limited efficiency improvements
Marginal relevance	**5–25%**	Activities with minimal or incidental environmental benefits: • Environmental outcomes are not objective • Only small portions contribute to sustainability	Very small share (<25%) contributes to environmental benefits	• General road construction with minor tree plantation • Skill development programmes with limited green sector linkage • General urban development schemes with small green components
Non-green (unfavourable)	**0–4% or negative**	Activities that: • Increase emissions or environmental degradation • Lock-in carbon-intensive pathways • Conflict with sustainability objectives	No positive contribution or negative impact	• Expansion of coal mining • Diesel subsidies • Fossil fuel-based infrastructure • Deforestation-linked projects

Just Transition flag

In addition to the primary tag, expenditures are assigned a Just Transition flag indicating whether they directly support coal districts, affected workers, or vulnerable communities. This binary flag

allows policymakers to track the social dimension of the transition and assess whether climate and environmental spending is reaching regions and groups most affected by structural change.

Table 3: Criteria for application of Just Transition flag

Flag	Criteria for application	Illustrative examples
Yes/no	Applied if the activity: • Targets coal-dependent districts • Supports workers affected by transition • Promotes livelihood diversification • Is funded through DMF or rehabilitation schemes • Benefits vulnerable or marginalised groups	• Reskilling programmes for coal workers • Mine closure and rehabilitation • MSME promotion in mining regions • Alternative livelihoods (agriculture, services) in coal districts

Alignment with the draft Framework of India's Climate Finance Taxonomy

The green budgeting framework for Jharkhand is designed to align closely with the draft Framework of India's Climate Finance Taxonomy (2025)[15], developed by the Ministry of Finance, Department of Economic Affairs. The taxonomy provides a nationally consistent classification of environmentally sustainable activities across key sectors of the economy and is expected to serve as the foundational reference for future green finance instruments, including sovereign and subnational green bonds, blended finance mechanisms, and climate-linked budget reporting. Integrating taxonomy-aligned classifications into the budget tagging methodology enables Jharkhand to align its green budgeting efforts with national policy priorities and emerging financial market standards, while also enhancing the consistency and credibility of reported expenditures.

Table 4: Alignment of green budgeting methodology and the draft Framework of India's Climate Finance Taxonomy

Themes	Objective in green budget tagging	Aligned Indian green taxonomy sectors	Coverage under taxonomy	Key differences/ gaps	Illustrative examples (scheme activities)
Climate mitigation	Reduce or avoid GHG emissions,	Renewable energy, energy efficiency, clean	Strong alignment,	Limited gaps, taxonomy provides	Solar power, EV buses, industrial energy

[15] Press Information Bureau (PIB), Draft Framework of India's Climate Finance Taxonomy, May 2025.

	support low-carbon development pathways	transport, industry decarbonisation, circular economy	core focus of taxonomy	relatively clear classification	efficiency, waste recycling, green buildings
Climate adaptation and resilience	Enhance resilience to climate risks and variability across sectors	Water management, climate-resilient agriculture, disaster risk reduction, ecosystems	Broad alignment, but still evolving in methodology	Lack of clear thresholds and metrics for resilience outcomes	Watershed development, flood control infrastructure, drought-resilient agriculture, groundwater recharge
Natural capital protection	Protect, conserve, and restore ecosystems, biodiversity, and land resources	Forestry, biodiversity conservation, land use, ecosystems	Well-aligned with environmental objectives	Some overlaps across sectors	Afforestation, wetland restoration, mine land reclamation, biodiversity conservation
Resource efficiency and circular economy	Improve resource efficiency, promote circular economy and recycling, reduce waste, and prevent pollution.	Circular economy, waste management, water efficiency, sustainable industry	Strong alignment across multiple taxonomy sectors	Some overlaps across sectors	Waste management and recycling, wastewater treatment and reuse, cleaner production, water conservation, resource recovery, composting and biomethanation
Sustainable mobility and urban systems	Promote low-emission transport and sustainable urban development	Clean transport, green buildings, urban infrastructure	Aligned but distributed across sectors in taxonomy	Lack of integrated urban systems perspective in taxonomy	Electric public transport, non-motorised transport (NMT), energy-efficient housing, urban green infrastructure

Just Transition and coal district resilience	Support economic diversification, social protection, and environmental restoration in fossil fuel-dependent regions	Partially covered (for example MSMEs, sustainable livelihoods), but not explicitly defined	Indirect alignment	Taxonomy does not explicitly include Just Transition or coal region resilience	Coal worker reskilling, mine closure and repurposing, MSME development in mining districts, DMF-funded livelihood programmes

Phased implementation roadmap

The introduction of green budgeting in Jharkhand requires a carefully sequenced and pragmatic implementation strategy. Given the complexity of public financial management systems and the need for institutional capacity building, the framework adopts a phased roadmap that allows for gradual scaling, learning, and consolidation. This approach ensures early visibility and credibility while minimising disruption to existing budget processes. The roadmap is structured across three progressive levels — essential, developed, and advanced — each with clearly defined features, institutional arrangements, and deliverables.

Table 5: Phased implementation roadmap for green budgeting

Element	Essential (phase 1)	Developed (phase 2)	Advanced (phase 3)
Timeline	First and second year	Third and fourth year	Fifth year onwards
Key focus areas	Tagging and identifying green expenditure	Tagging, reallocation and rationalisation in expenditure	Tagging, reallocation, long term decarbonisation and Just Transition priorities
Environmental objectives	Climate-related	Climate- and Just Transition-related	Climate- and Just Transition-related
Budgetary items	Favourable revenue and expenditure	Favourable and unfavourable items	Favourable and unfavourable items

Participation	**Four priority departments** • Department of Agriculture, Animal Husbandry and Co-operative • Department of Energy • Department of Forest, Environment and Climate Change • Department of Rural Development	**12 relevant departments** • Department of Agriculture, Animal Husbandry and Co-operative • Department of Energy • Department of Forest, Environment and Climate Change • Department of Industries • Department of Labour Employment, Training and Skill Development • Department of Mines and Geology • Department of Rural Development • Transport Department • Urban Development and Housing Department • Department of Water Resources • Department of Tourism, Art Culture, Sports and Youth Affairs • Department of Scheduled Tribe Scheduled Caste Minority and Backward Class Welfare	12 and all relevant departments
Methodology	Tagging methodology	Tagging methodology and multi-year tracking	Tagging methodology, multi-year tracking and independent evaluation.
Deliverables	Identification and execution in budget	Identification and execution in budget. Estimation of multi-year trajectory	Identification and execution in budget. Estimation of multi-year trajectory. Extra-budgetary spending reports
Governance	Green budgeting cell as a project management unit (PMU) in the Department of Finance	Green budgeting cell as a PMU in the Department of Finance and green budgeting correspondents in participating departments	Green budgeting cell as a PMU in the Department of Finance and green budgeting correspondents in participating departments

Capacity building	Conduct introductory training for departments	Develop regular training programmes and technical guidance manuals	Institutionalise advanced technical capacity and knowledge-sharing systems
Data and systems	Basic data collection and manual reporting	Develop a centralised green budget portal	Develop a centralised green budget portal
Additional report coverage inclusion	District Mineral Foundation Trust (DMFT)	DMFT, Compensatory Afforestation Fund Management and Planning Authority (CAMPA), etc.	DMFT, CAMPA, etc.
Transparency and accountability	All deliverables will be public	All deliverables will be public.	All deliverables will be public, independent evaluation

Essential level: Establishing the foundation

The first phase focuses on establishing the foundations of green budgeting within the Government of Jharkhand. During this phase, the primary objective is to identify and tag environmentally relevant expenditures and revenues using the proposed green budgeting methodology. The exercise will initially focus on four priority departments: Agriculture; Animal Husbandry and Co-operative; Energy; Forest, Environment and Climate Change; and Rural Development. The emphasis will be on climate-related expenditures, enabling the state to generate its first comprehensive picture of environmentally relevant spending.

Institutionally, a green budgeting cell will be established within the Department of Finance to coordinate implementation, develop guidance materials, and consolidate departmental submissions. Basic data collection and manual reporting systems will be used, supported by introductory training programmes for departmental officials. The key deliverable of this phase will be the preparation of the first green budget statement identifying climate-related expenditures within the state budget. In addition, selected extra-budgetary funds, such as those coming from the District Mineral Foundation Trust (DMFT), may be included to broaden the assessment of environmentally relevant spending. All methodologies and outputs will be publicly disclosed to promote transparency and stakeholder engagement.

Developed level: Deepening analysis and institutionalisation

This phase expands the scope of green budgeting beyond expenditure identification to support expenditure reallocation and fiscal rationalisation. During this stage, the framework broadens its environmental objectives to include both climate and Just Transition considerations. Coverage

expands to 12 departments whose policies and expenditures have significant environmental, social, and transition implications, including departments of industries, mining, labour and skill development, transport, urban development, water resources, tourism, and welfare. The framework also begins tracking environmentally harmful, or unfavourable, expenditures alongside positive expenditures, providing a more balanced assessment of fiscal impacts.

This phase strengthens institutional and analytical systems through the introduction of multi-year expenditure tracking and enhanced reporting mechanisms. Green budgeting correspondents will be designated within participating departments to support scheme-level tagging and reporting. A centralised green budget portal will be developed to improve data management, reporting, and public disclosure. Capacity-building efforts will move beyond introductory training to regular technical programmes and guidance manuals. Deliverables will include annual green budget statements and estimates of multi-year expenditure trajectories, enabling policymakers to assess trends and identify opportunities for reallocating resources toward environmental and Just Transition priorities. Independent evaluation of deliverables may also be introduced to strengthen credibility and accountability.

Advanced level: Complete integration and strategic use

The third phase positions green budgeting as a strategic tool for long-term fiscal planning, decarbonisation, and Just Transition. Building on the systems established in earlier phases, the framework expands to all relevant departments and integrates environmental considerations into broader policy, investment, and fiscal decision-making processes. The focus shifts from expenditure tracking alone to supporting long-term transition pathways, helping the state align public spending with its development, climate, and economic diversification objectives. Coverage will include both favourable and unfavourable expenditures, as well as relevant revenue.

At this stage, green budgeting becomes a mature component of Jharkhand's public financial management system. The methodology incorporates multi-year tracking, impact assessment, and independent evaluation to assess the effectiveness of public spending in achieving environmental and transition outcomes. The green budget portal will evolve into a comprehensive monitoring and reporting platform, supported by advanced analytical capabilities and institutionalised knowledge-sharing mechanisms. Reporting will also extend to major extra-budgetary funds such as DMFT and Compensatory Afforestation Fund Management and Planning Authority (CAMPA), providing a complete picture of public environmental expenditure. Through enhanced transparency, independent evaluation, and stronger integration with fiscal planning processes, the 'advanced' phase will help ensure that public resources contribute effectively to climate resilience, environmental sustainability, and a Just Transition for affected communities.

Immediate priorities for the first 12 months

The success of the phased roadmap depends on decisive early action. In the first 12 months, the Government of Jharkhand should issue a formal government resolution establishing the green

budgeting cell within the Department of Finance. This resolution should clearly define the mandate, reporting lines, and coordination mechanisms with line departments.

Simultaneously, detailed tagging guidelines and standardised templates should be developed and circulated among all departments. These guidelines should explain the tagging categories, taxonomy alignment, proportional coefficients, and reporting requirements in a clear and practical manner. Capacity-building workshops and hands-on training sessions should be conducted to support initial implementation.

A pilot tagging exercise should be undertaken in four priority departments: Agriculture, Animal Husbandry and Co-operative; Energy; Forest, Environment and Climate Change; and Rural Development. Lessons from the pilot should be used to refine methodologies and address implementation challenges.

The first major public deliverable of this phase will be the publication of Jharkhand's inaugural green budget statement, issued as a pilot alongside the financial year (FY) 2027–28 state budget. This statement will provide a baseline for future improvements and anchor green budgeting as a core component of Jharkhand's fiscal governance framework.

Institutional framework and governance

This section outlines the institutional architecture and governance arrangements required to operationalise green budgeting in Jharkhand. It defines the roles and responsibilities of key state institutions to ensure coordination, technical credibility, and accountability across the budget cycle. A clearly articulated framework is essential to embed environmental and climate considerations into fiscal decision-making while supporting transparency and effective implementation.

Figure 6: Institutional set-up for implementing green budgeting

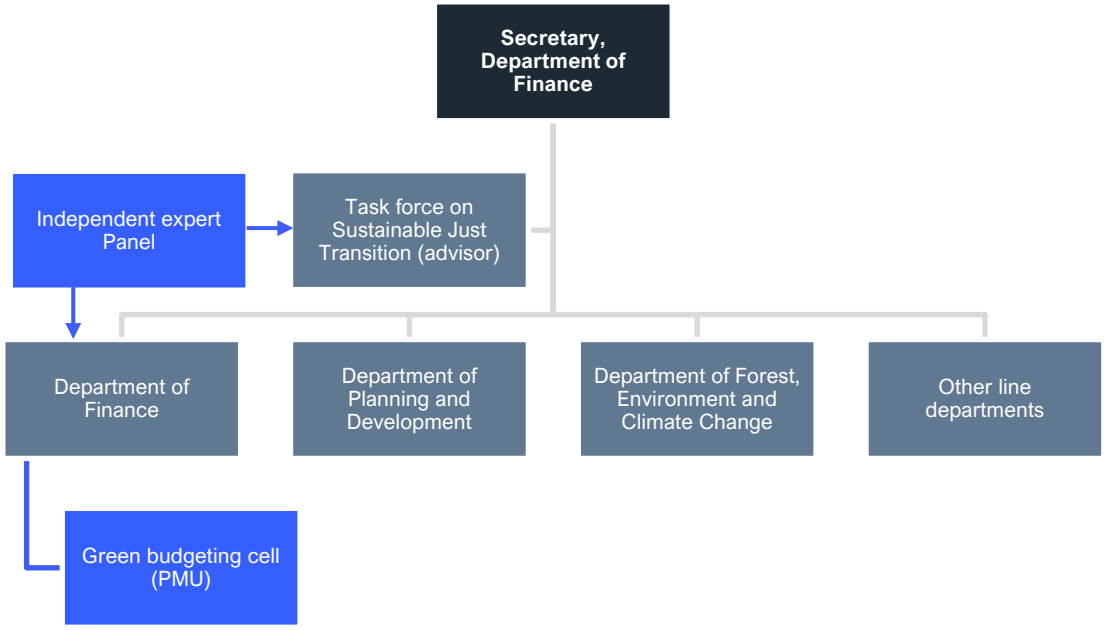


Table 6: Key outputs of institutional set-up for green budgeting

Institution/body	Key outputs/responsibilities	Stage of budget cycle
Department of Finance (DoF)	Overall coordination of the green budgeting framework; issuance of budget circulars and tagging guidance; consolidation of departmental submissions; preparation and publication of the annual green budget statement.	Budget formulation, consolidation, reporting
Green budgeting cell as PMU (within DoF)	Development of tagging methodology and guidance notes; capacity building of departmental focal points; management of the green budget portal; expenditure analysis, monitoring, and reporting.	Continuous (across the budget cycle)
Department of Planning and Development	Integration of green budgeting considerations into state planning processes; alignment with development priorities and medium-term planning frameworks.	Planning, budget formulation
Department of Environment, Forest and Climate Change (DoEFCC)	Technical guidance on environmental objectives and classification criteria; validation of sectoral approaches; alignment with climate and environmental policies, including the State Action Plan on Climate Change.	Budget formulation, technical validation
Line departments	Scheme-level expenditure tagging; submission of tagged budget data and supporting justifications; reporting on implementation and outcomes.	Budget preparation, execution

Task Force on Sustainable Just Transition	Identification of priority sectors, training and capacity building, strategic guidance, research studies, seminars, workshops, consultations, and related activities.	Strategic oversight, interdepartmental coordination, research, workshops, etc.
Independent expert panel	Periodic review of methodology, tagging practices, and framework outputs; recommendations for methodological improvements and analytical studies; strategic and technical support to both the Just Transition Task Force and the Department of Finance.	Periodic review, recommendations

Rationale for an institutional framework

The effectiveness of a green budgeting framework depends not only on sound methodology, but also on clear institutional responsibilities, coordination mechanisms, and accountability structures. Green budgeting cuts across multiple sectors and departments, many of which traditionally operate within functional silos. Without a well-defined governance arrangement, there is a risk that tagging becomes a one-time technical exercise rather than a sustained public financial management reform.

For Jharkhand, an institutional framework for green budgeting must balance central coordination with departmental ownership. It should be anchored within the state's existing budget and public financial management systems, while drawing on technical expertise from environmental agencies and independent institutions. The framework therefore proposes a multi-tier governance structure that clearly delineates roles for the Department of Finance, line departments, the Department of Environment, Forest, and Climate Change and independent experts.

Role of the Department of Finance

The Department of Finance will act as the nodal authority for the green budgeting framework, reflecting its central role in budget formulation and fiscal policy. The department will be responsible for establishing and overseeing the green budgeting cell and ensuring that green budgeting is integrated into routine budgeting processes rather than being treated as an ad hoc initiative. The Department of Finance will also be supported by an Independent Expert Panel, which will provide technical and strategic guidance to both the Department and the Just Transition Task Force.

As part of its mandate, the Department of Finance will issue budget circulars and guidance notes that incorporate green budget tagging requirements for line departments. These circulars will specify timelines, reporting formats, and methodological standards, ensuring consistency across departments. The department will also oversee the consolidation of departmental submissions, apply quality checks, and compile the annual green budget statement as a formal annex or supplementary document to the state budget.

Green budgeting cell as project management unit (PMU) within the Department of Finance

At the operational core of the institutional framework is the green budgeting cell within the Department of Finance. The green budgeting cell will serve as the project management unit responsible for managing the technical and administrative aspects of green budgeting. In its initial phase, the cell will be staffed by a small multidisciplinary team of four professionals, a policy analyst, a fiscal analyst and two data and information systems officers.

The cell's responsibilities will include developing and refining the tagging methodology, preparing guidance materials and standard operating procedures (SoPs) for line departments, and providing continuous handholding support to departments throughout the process. It will consolidate departmental submissions, coordinate quality assurance, and strengthen institutional capacity through training programmes, workshops, and technical assistance. It will also be responsible for maintaining the green budgeting database, ensuring the integrity and consistency of expenditure information, and supporting the preparation of the annual green budget statement and related analytical outputs.

A key function of the green budgeting cell in the later phases will be the development and maintenance of the green budget portal. This portal will serve as a platform for data management and public disclosure, enabling transparent publication of green and transition expenditure data, methodological notes, and summary reports. Over time, the portal will also support analytical functions, such as trend analysis and linkage with performance indicators.

Role of Department of Planning and Development

The Department of Planning and Development will play a critical role in ensuring that green budgeting is aligned with the state's broader development objectives and planning priorities. As the department responsible for development planning, programme prioritisation, and monitoring, it will help integrate environmental sustainability, climate resilience, and Just Transition considerations into state development strategies, sectoral plans, and medium-term planning frameworks. This will ensure that green budgeting is not treated as a standalone exercise but is embedded within the state's overall development agenda.

The department will work closely with the Department of Finance, line departments, and the green budgeting cell to identify priority sectors and investments that contribute to sustainable development outcomes. It will also support the incorporation of green budgeting considerations into annual and medium-term planning processes, facilitate interdepartmental coordination, and help align public expenditure with the state's economic, social, and environmental objectives.

Role of the Department of Environment, Forest and Climate Change

The Department of Environment, Forest and Climate Change will play a critical technical and policy alignment role within the governance framework. Given its mandate and expertise, the department will support the validation of green and transition tags, particularly for complex or borderline cases. It

will also ensure that green budgeting classifications are aligned with the State Action Plan on Climate Change, sectoral environmental policies, and broader sustainability objectives.

In practice, the department's role will focus on providing technical guidance rather than duplicating financial oversight functions. This includes issuing sector-specific environmental criteria, advising on the application of DNSH principles, and supporting the interpretation of environmental outcomes. By linking green budgeting to the State Action Plan on Climate Change, the department will help ensure that fiscal allocations are aligned with policy commitments and long-term climate goals.

Role of line departments

Line departments are central to the operationalisation of green budgeting, as they are responsible for proposing, implementing, and monitoring sectoral expenditures. Under the framework, each line department will be required to tag its budget line items according to the prescribed green budgeting methodology and to provide brief justifications for classifications, particularly for green and transition-related expenditures.

In addition to tagging, line departments will be expected to undertake basic ex-ante and ex-post assessments of selected programmes and schemes. Ex-ante assessments will focus on the anticipated environmental and climate relevance of proposed expenditures, while ex-post assessments will examine implementation progress and outcomes to the extent feasible. To facilitate coordination and capacity building, each department will nominate a departmental green budgeting correspondent who will serve as the primary focal point for interaction with the green budgeting cell. This approach strengthens ownership at the departmental level and supports gradual institutional learning.

Role of Task Force on Sustainable Just Transition

The Task Force on Sustainable Just Transition will serve as a strategic advisory and coordination platform to support the implementation and evolution of the green budgeting framework. The Task Force will help identify priority sectors and thematic areas for green and transition-related investments, provide strategic guidance on implementation, and ensure alignment with Jharkhand's broader development and Just Transition objectives. The task force will be supported by an independent expert panel, which will provide technical and analytical guidance on framework design, tagging methodologies, implementation approaches, and emerging policy issues.

In addition, the task force will support training and capacity-building initiatives across departments, facilitate stakeholder consultations, and promote knowledge sharing through seminars, workshops, and technical discussions. It will also commission or guide research studies and analytical work on emerging environmental, climate, and transition issues, helping strengthen the evidence base for fiscal decision-making and continuous improvement of the framework.

Role of independent expert panel

To enhance credibility, methodological robustness, and external confidence, the framework proposes the establishment of an independent expert panel. The panel may comprise experts in finance, environmental economics, climate policy, project implementation, and data analytics drawn from academic institutions, think tanks, civil society organisations, industry, and retired public officials. The panel will provide technical and strategic support to both the Department of Finance and the Task Force on Sustainable Just Transition, helping strengthen the design, implementation, and continuous improvement of the green budgeting framework.

The panel's primary role will be to periodically review the green budgeting methodology, assess the quality and consistency of expenditure tagging, and recommend methodological enhancements and analytical studies. While not involved in day-to-day budget processes, it will serve as an independent quality assurance and learning mechanism, helping identify systemic gaps, address methodological ambiguities, and benchmark Jharkhand's approach against national and international best practices. Over time, the panel's assessments could strengthen the credibility of green budgeting outputs and support engagement with the central government, financial institutions, and development partners.

Phased strengthening of governance arrangements

The proposed institutional framework is designed to evolve over time in line with Jharkhand's capacity and experience with green budgeting. In the initial phase, governance arrangements will focus on coordination, learning, and internal reporting. As systems mature, roles will be further formalised, and staffing of the green budgeting cell will be strengthened further.

This phased approach allows the state to avoid excessive institutional complexity in the early stages while laying a strong foundation for long-term integration of green budgeting into public financial management. By clearly defining roles and responsibilities and embedding them within existing institutions, Jharkhand can ensure that green budgeting becomes a durable and effective instrument for sustainable and inclusive development.

Reporting, transparency, and capacity building

Effective green budgeting extends beyond classification and tagging of expenditures. Its long-term success depends on robust reporting mechanisms, transparent public disclosure, and sustained capacity building across government institutions. For Jharkhand, where green budgeting represents a new dimension of fiscal governance, these elements are critical to ensure credibility, usability, and continuous improvement. This section outlines the proposed approach to green budget reporting, public transparency, and institutional capacity development under the green budgeting framework.

Green budget statement

The green budget statement will serve as the primary official document for reporting Jharkhand's green, transition, and non-green expenditures. It will be published annually alongside the state budget and form an integral part of the budget document. The statement is designed to provide policymakers, legislators, and external stakeholders with a clear and consolidated view of how fiscal resources are aligned with environmental, climate, and Just Transition objectives.

At a minimum, the green budget statement will include a summary of total expenditure classified under each tagging category, including green positive, transition enabling, enabling or systemic, neutral, and brown. This aggregate overview will enable year-on-year comparison and help track changes in the composition of public spending. Over time, trends emerging from this summary will inform strategic fiscal decisions, including the reallocation of resources away from environmentally harmful expenditures.

The statement will also present a department-wise breakdown of tagged expenditures, highlighting the contribution of individual line departments to environmental and transition objectives. This disaggregation will help enhance accountability and encourage ownership of green budgeting outcomes at the departmental level. Departments with significant green or transition spending will be able to showcase their contributions, while those with limited alignment can be supported through targeted policy and capacity interventions.

In addition to financial data, the statement will include a qualitative summary of key achievements, progress against selected indicators, and areas for improvement. This will contextualise the numbers, explain methodological refinements, and outline planned enhancements to the tagging framework. As the system matures, the statement may also incorporate selected outcome indicators to link expenditures with environmental and social results.

Transparency through green budgeting portal

To reinforce transparency and public trust, Jharkhand will establish an online green budgeting portal at an advanced stage as a core component of the green budgeting framework. The portal will provide open access to green budget data, tagging methodologies, and annual trends for a wide range of stakeholders, including citizens, researchers, civil society organisations, and potential investors.

The portal will present aggregated expenditure data by tagging category, sector, department, and year, using clear visualisations and downloadable datasets. It will also explain the tagging logic, classification criteria, and use of proportional coefficients in accessible language. By demystifying the methodology, portal will reduce the risk of misinterpretation and enhance the credibility of reported figures.

Over time, the portal can be expanded to include analytical tools, such as trend analysis, geographic distribution of green spending, and linkages with development and climate indicators. For investors and development partners, transparent and consistent disclosure through the portal will signal Jharkhand's commitment to credible green finance practices and support engagement with green bonds and climate finance mechanisms.

Independent evaluation

Independent evaluation will provide an additional layer of assurance, as well as support continuous improvement of the framework. An independent expert panel can undertake periodic and, eventually, annual reviews of the tagging methodology, application of proportional coefficients, departmental submissions, and the consolidated green budget statement. The review can assess consistency across departments, identify areas requiring clarification, and recommend methodological improvements, including the treatment of transition and Just Transition expenditures.

Independent evaluation should complement, rather than replace, existing government oversight and departmental accountability. As the framework matures, selected methodologies, assumptions, and non-sensitive datasets can be made publicly available to facilitate external scrutiny and peer learning. At the advanced stage, Jharkhand may also consider appropriate external assurance mechanisms, including review or audit of process integrity and compliance with notified methodologies. Together, reporting, transparency, capacity building, and independent evaluation will strengthen the credibility and effectiveness of green budgeting over time.

Capacity building

Capacity building is a critical enabler of effective green budgeting, particularly in the early years of implementation. Given the technical nature of tagging, assessment, and reporting, targeted and sustained capacity development efforts are required across line departments, finance officials, and associated agencies.

Regular training workshops will be conducted for line departments to build familiarity with tagging categories, taxonomy alignment, proportional classification, and DNSH screening. These workshops will combine conceptual guidance with hands-on exercises using actual budget heads to ensure practical understanding. Refresher trainings will be organised annually to accommodate staff turnover and methodological updates.

Collaboration with academic institutions, research organisations, and technical experts will be encouraged to strengthen data quality, analytical rigour, and methodological innovation. Such partnerships can support the development of sector-specific indicators, evaluation methodologies, and evidence-based policy insights. They can also help bridge data gaps, particularly in areas such as environmental outcomes and regional transition impacts.

Tagging guidelines and methodological notes will be reviewed and updated on a regular basis in consultation with experts and stakeholders. This iterative approach will allow Jharkhand's green budgeting framework to evolve in line with emerging national policies, international standards, and lessons learned from implementation. Through continuous learning and adaptation, green budgeting will become an embedded and resilient component of the state's fiscal governance system.

The way forward

The immediate priority for Jharkhand is to move from concept to execution through a phased and pragmatic rollout anchored within the Department of Finance. This should begin with a formal government order establishing a green budgeting cell and issuing a budget circular mandating pilot tagging across select departments such as Energy, Agriculture, Rural Development, and Forest. Rather than attempting full-scale implementation at the outset, the state should adopt a "learn by doing" approach, using the first budget cycle to test simplified tagging methodologies, identify data gaps, and refine processes. Early success will depend on strong administrative ownership, clear guidance notes, and hands-on support to departments during the initial tagging exercise.

The second phase should focus on institutionalisation and methodological strengthening, building on lessons from the pilot. This includes expanding tagging across all departments, integrating ex-ante assessment templates into scheme approvals, and gradually introducing quantitative indicators such as emissions reduction, resilience outcomes, and socio-economic co-benefits. At this stage, aligning budget classifications with the draft Framework of India's Climate Finance Taxonomy will be critical to ensure consistency with national frameworks and improved access to climate finance. Parallel investments in capacity building through training workshops, technical manuals, and partnerships with academic institutions will be essential to enhance the ability of departmental officials to undertake robust environmental assessments.

A key enabler of long-term success will be the development of robust data systems and transparency mechanisms. Jharkhand should aim to integrate green budgeting into its existing financial management systems, enabling automated tagging, aggregation, and reporting over time. The publication of an annual green budget statement, supported by an online dashboard, will enhance credibility and enable stakeholder engagement, including with civil society, researchers, and development partners. Importantly, the framework should extend beyond traditional budgetary flows to include DMF funds, state-owned enterprises, and extra-budgetary resources, thereby capturing the full spectrum of public finance relevant to the state's Just Transition.

Finally, sustaining momentum will require strong accountability and continuous improvement mechanisms. The state should institutionalise periodic reviews through an independent expert panel, ensuring that methodologies evolve in line with global best practices such as those reflected in the EU and OECD frameworks. Over time, Jharkhand can move toward a stage where green budgeting is not just a reporting exercise but actively shapes medium-term planning, public investments, and policy choices. Integrating it into day-to-day governance can improve how resources are allocated

while also positioning the state as a frontrunner among Indian states in supporting a just and sustainable transition.

Annex 1: Department-wise suggested green classification

Department	G+ (green positive)	T (transition)	E (enabling)	B (brown/negative)
Energy	Renewable energy (solar, storage), energy efficiency	Grid upgrades, coal plant repurposing, green hydrogen pilots	Energy data systems, demand side management programmes	Coal power expansion, diesel subsidies
Mining and Geology	Mine closure, land reclamation, afforestation	Mine repurposing, worker reskilling	Monitoring systems, geological mapping	Expansion of coal mining
Forest, Environment and Climate Change	Afforestation, biodiversity conservation, wetland restoration	Community forest management, eco-tourism	Climate planning (SAPCC), MRV systems	Deforestation, forest diversion
Agriculture and allied	Organic farming, agroforestry, solar irrigation, soil restoration	Integrated farming, efficient irrigation	Extension services, climate advisories	Chemical-intensive subsidies, diesel pumps
Rural Development	Watershed development, water conservation, land restoration	Livelihood diversification, eco-infrastructure	Self-help groups capacity building, planning systems	Land degradation-linked infrastructure
Urban Development and Housing	EV public transport, waste management, green buildings	Mixed transport systems, efficient housing	Urban planning, geographic information systems	Car-centric planning, landfill expansion
Transport	Electric mobility, rail, non-motorised transport (NMT)	Fuel efficiency improvements, modal shift	Intelligent transportation system (ITS)	Fossil fuel vehicle incentives

			systems, transport planning	
Water Resources	River restoration, groundwater recharge, flood management	Irrigation modernisation	Hydrological data systems	Over-extraction projects
Industry	Green industries, circular economy	MSME efficiency improvements	ESG compliance systems	Polluting industry incentives
Skill Development and Labour	Green jobs training, coal worker reskilling	General skill programmes with green components	Labour systems, training infrastructure	Skills for high-emission sectors
Finance (cross-cutting)	Green bonds, climate funds	Subsidy reforms, transition finance	Green budgeting systems	Fossil fuel tax breaks
DMF/Just Transition	Restoration, health, renewable energy in mining areas	Livelihood diversification, MSMEs	DMF governance systems	Non-priority spending

About the Task Force on Sustainable Just Transition, Government of Jharkhand

The Government of Jharkhand has established a Task Force on Sustainable Just Transition to support national climate goals of achieving net-zero emissions by 2070, along with addressing associated socio-economic issues. The task force aims to provide key recommendations to the Government of Jharkhand on building a sustainable and future-ready Jharkhand by identifying innovative transition pathways towards a non-fossil fuel-based ecosystem, assessing the impact on the economy, workers and communities, identifying opportunities in green sectors, and recommending policy interventions.

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