



Report

Aligning District Mineral Fund for a Future-Ready Jharkhand

A District Level Readiness Framework for Climate Resilience and Just Transition



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Shri Aboobacker Siddique P., IAS

Secretary, Department of Forest, Environment and Climate Change
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Foreword



District Mineral Foundations (DMFs) are uniquely positioned to become a locally sourced financing mechanism for long-term socio-economic transformation. Moving from the prevailing focus on providing basic amenities in the targeted regions, the strategic and forward-looking utilisation of DMF resources can be critical for strengthening just transition preparedness.

This is important for supporting the resilient, diversified, and community-centred development pathways by investing in future-ready livelihoods, climate-resilient infrastructure, ecological restoration, and social resilience.

I am pleased to see that the report prepared by the Task Force-Sustainable Just Transition and CEED advances this timely discourse by analysing district-level trends and introducing an innovative 'Readiness Index' for DMFs. The report aptly provides a framework for identifying development and institutional gaps, prioritising investments for just transition planning towards a sustainable future.





Shri Arava Rajkamal, IAS

Secretary, Department of Mines and Geology

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Message



District Mineral Foundation (DMFs) should be planned not merely as welfare funds, but as strategic instruments for long-term, localised development in mining-affected regions. The strategic and forward-looking utilisation of DMF resources is critical to preparing local economies and communities for long-term socio-economic development, while ensuring that vulnerable populations are not left behind in the shift towards a low-carbon and sustainable future.

I am delighted to see that the report prepared by the Center for Environment and Energy Development (CEED) advances this important discourse by analysing district-level trends and introducing a 'Readiness Index' for DMFs.

I believe this report will serve as a valuable resource for policymakers, stakeholders in mining-dependent districts, mining companies, coal PSUs, industries, MSMEs, civil society organisations, and local communities.





Shri A.K. Rastogi, IFS (retd.)

Chairman, Task Force, Sustainable Just Transition
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Message



District Mineral Foundations (DMFs) have emerged as one of the most significant sources of place-based public finance for mining-affected districts in India. In Jharkhand, their importance is particularly pronounced. As one of the country's leading mineral-producing states, Jharkhand contributes a substantial share of national DMF collections, reflecting both the intensity of extraction and the scale of fiscal resources available at the district level.

Beyond addressing immediate infrastructure and welfare gaps, DMFs hold the potential to become strategic instruments for enabling a sustainable just transition, strengthening long-term economic resilience, promoting livelihood diversification, and advancing sustainable pathways in mining-affected regions.

The report makes a valuable contribution by advancing a forward-looking approach to DMF planning and utilisation. It introduces a novel 'Readiness Index' to support informed, strategic, and future-oriented district-level planning. The framework offers a valuable tool for evidence-based planning, helping policymakers and stakeholders identify transition vulnerabilities, prioritise investments, strengthen institutional preparedness, and align DMF utilisation with the broader goals of sustainable just transition.





Shri Ramapati Kumar

Chief Executive Officer

Center for Environment & Energy Development (CEED)

Message



District Mineral Foundation Trust (DMF) is an important financing mechanism to channel mining revenues into addressing the social, economic, and environmental impacts on mining-affected communities. At a time when climate and just transition finance gaps continue to widen, especially in resource-dependent regions, DMFs can emerge as a critical domestic financing avenue to support locally grounded transition pathways.

By aligning DMF planning with long-term sustainability and just transition goals, mining-affected districts can strengthen economic resilience, reduce future vulnerabilities, and create inclusive development opportunities.

Centre for Environment and Energy Development (CEED) feels proud in undertaking this study, which analyses DMF spending patterns in Jharkhand, identifying key trends, gaps, and opportunities. Innovatively, it introduces a forward-looking 'readiness framework' with strategic pillars and indicators to guide evidence-based, localised development and just-transition financial planning. The report aims to strengthen the solution-driven deliberation on new financial avenues and just transition planning to attain climate goals.



Acknowledgement

This work has been strengthened by the support, guidance, and contributions of several individuals whose insights and efforts have been invaluable.

Sincere gratitude is extended to Mr A.K. Rastogi IFS (Retd.) Chairman, Task Force on Sustainable Just Transition and Mr. Ramapati Kumar, CEO CEED for their valuable guidance, encouragement, and support throughout this assessment. Their insights and perspectives played an important role in shaping the direction of this work.

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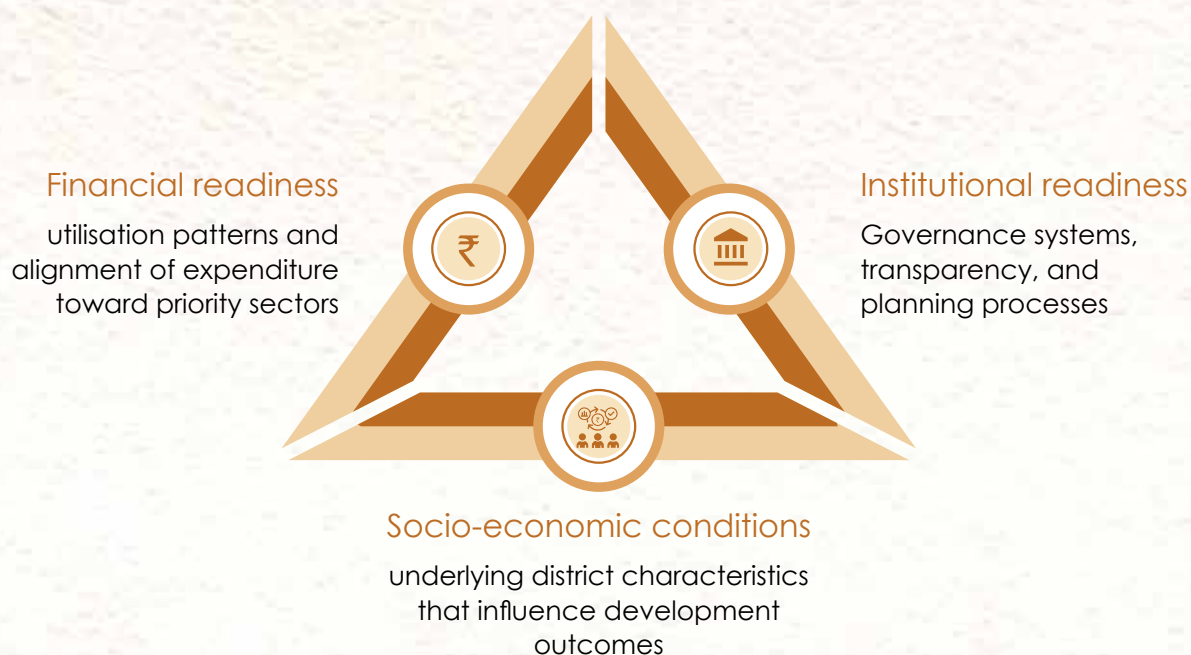
EXECUTIVE SUMMARY

District Mineral Foundations (DMFs) represent one of the largest sources of place-based development finance available to mining-affected districts in Jharkhand. As Jharkhand's district economies remain closely tied to coal, DMF also represents a critical and time-bound instrument for enabling a Just Transition, building diversified livelihoods, stronger communities, and climate-resilient development. As of April 2026, the state has collected **₹18,231.54 crore under DMF**, accounting for **16.3% of total national collections and ranking second in the country after Odisha**.

Despite this substantial resource base, financial deployment remains uneven. The state currently holds an **unspent balance of ₹8,434.47 crore**, with particularly high unspent shares in key mining districts. Jharkhand contributes approximately 29.83% of national coal-linked DMF collections, a fiscal strength that also creates long-term vulnerability, as inflows remain tied to a sector undergoing structural transition. In contrast, districts such as Bokaro, Dumka, Deograh, Godda and East Singhbhum demonstrate relatively stronger utilisation patterns. These differences indicate that **resource availability alone does not determine outcomes; planning quality and execution capacity are critical**.

In the context of the revised PMKKKY Guidelines (2024), which mandate 70% expenditure on high-priority sectors and introduce five-year perspective planning, this report assesses district-level performance through a Readiness Framework.

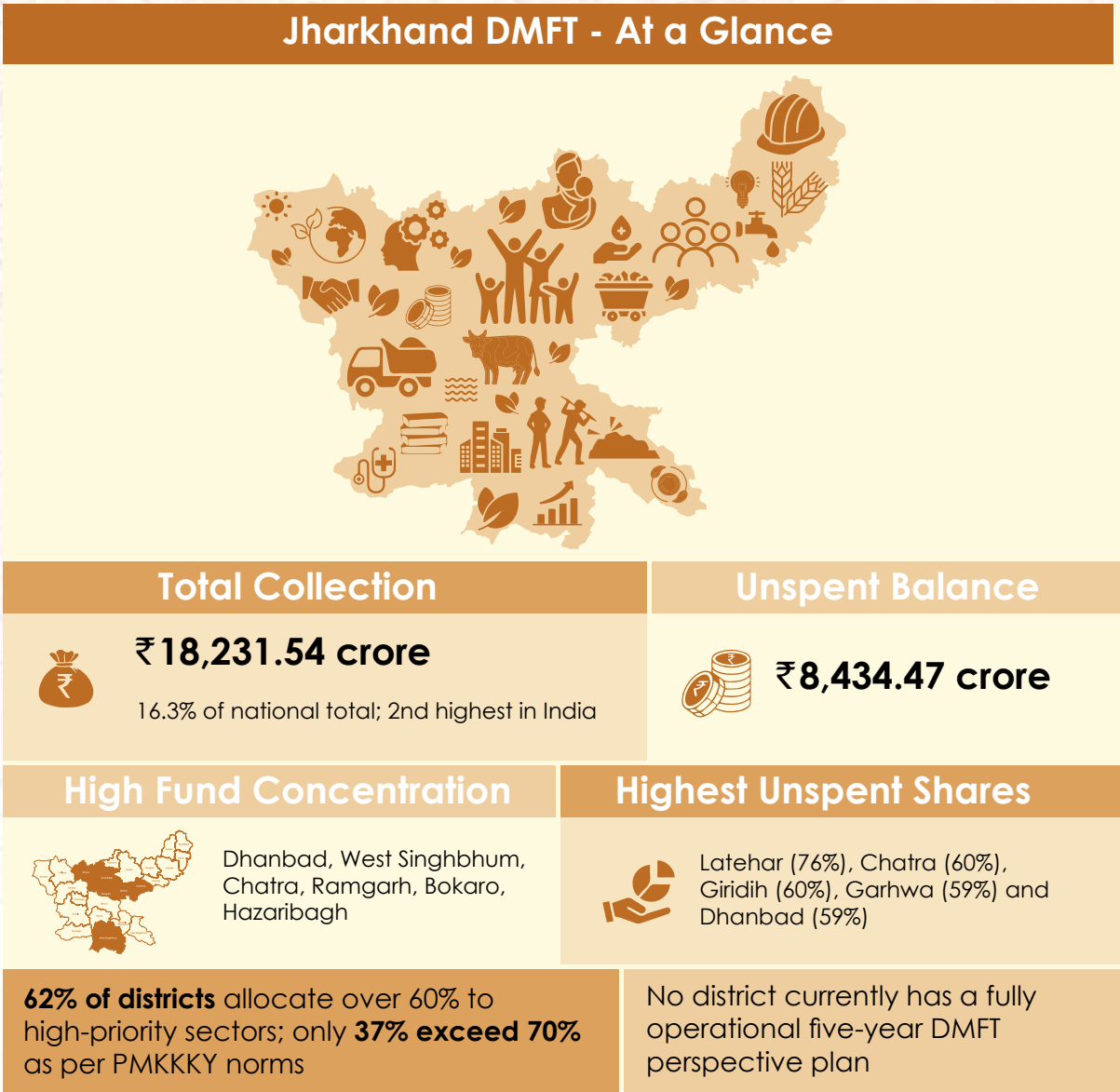
The report advances a central argument: that DMF must evolve from a mechanism of compensation, addressing immediate deficits, toward one of capability building, enabling communities to navigate structural economic changes and participate in India's energy transition. The framework evaluates:



The analysis reveals significant variation across districts. While 62% of districts allocate more than 60% of expenditure toward high-priority sectors, only one-third meet the 70% threshold under PMKKKY norms. Expenditure classified as “future-oriented” remains concentrated in drinking water, health, and education, with comparatively limited investment in skill development, livelihood diversification, and environmental restoration.

Institutional systems remain uneven. No district currently demonstrates a fully operational five-year DMF perspective plan, indicating that medium-term planning is yet to be institutionalised. Variations are also observed in reporting practices, transparency mechanisms, and identification of mining-affected populations.

Socio-economic conditions further shape the effectiveness of DMF investments. Districts with relatively stronger human capital indicators, such as Bokaro, East Singhbhum, and Ramgarh, are better positioned to translate expenditure into sustained outcomes. In contrast, districts such as Pakur, West Singhbhum, and Latehar face high levels of deprivation, requiring more targeted and capability-focused investments.



The central finding of this report is that the **scale of DMF fund collections does not automatically translate into development readiness**. Instead, readiness depends on the alignment between financial deployment, institutional capacity, and underlying socio-economic conditions. A transition-ready DMF portfolio must invest across three interconnected areas: human, capital and livelihood diversification, particularly in coal-dependent districts; environmental restoration as both an ecological imperative and a source of near-term employment; and decentralised energy access, enabling communities to participate in rather than bear the costs of India's energy transition.

DMF offers Jharkhand a stable and significant resource base to support mining-affected communities. With coal revenues likely to taper at the moment when transition expenditure needs peak, the window to deploy DMF strategically is both significant and time-bound. Strengthening medium-term planning, improving financial execution, enhancing governance systems, and aligning investments with district-specific needs can enable DMF to move beyond fragmented annual spending toward more sustained and inclusive development pathways.

1

Introduction and Context



Over the past decade, District Mineral Foundations (DMFs) have emerged as one of the most significant sources of place-based public finance available to mining-affected districts in India. Established to ensure that a portion of mineral revenues is reinvested in affected areas, DMFs have accumulated substantial resources and offer a critical opportunity to support local development priorities.

In Jharkhand, this opportunity is particularly significant. As one of India's leading mineral-producing states, Jharkhand accounts for a substantial share of national DMF collections, reflecting both the intensity of mining activity and the scale of fiscal flows available at the district level. These resources represent a rare form of predictable, locally anchored finance that can be aligned with district-specific development needs.

At the same time, mining-dependent regions are entering a period of structural change. As global energy systems evolve and countries move toward lower-carbon development pathways, the long-term role of extractive industries, particularly coal, is expected to shift, with implications for employment patterns, fiscal dependence, and regional economic structures (NITI Aayog, 2022; IEA, 2023). For states such as Jharkhand, where district economies are closely tied to mining activity, these changes underscore the need to anticipate transition risks and align existing financial mechanisms, such as DMF, with strategies that support diversification, resilience, and inclusive development.

Rather than functioning solely as a mechanism for addressing immediate deficits, DMF can be positioned as a strategic instrument to support long-term capability development, economic diversification, and resilience-building in mining-affected areas. This shift is increasingly reflected in policy discourse, including the revised PMKKKY Guidelines (2024), which emphasise prioritisation of human development, livelihood generation, and medium-term planning through five-year perspective plans.

However, realising this potential requires moving beyond a narrow focus on financial utilisation or project-level expenditure. Indicators such as allocation and spending provide useful insights into how funds are deployed, but do not capture whether investments are aligned with longer-term development and transition needs. High expenditure can coexist with fragmented, short-term interventions, while lower utilisation may reflect deeper institutional or planning constraints.

The central challenge, therefore, is not only how much DMF funding is being spent, but how effectively it is being directed toward building the capabilities required for a changing economic context. This includes strengthening human capital, enabling livelihood diversification, supporting environmental restoration, and enhancing institutional capacity for planning and implementation.

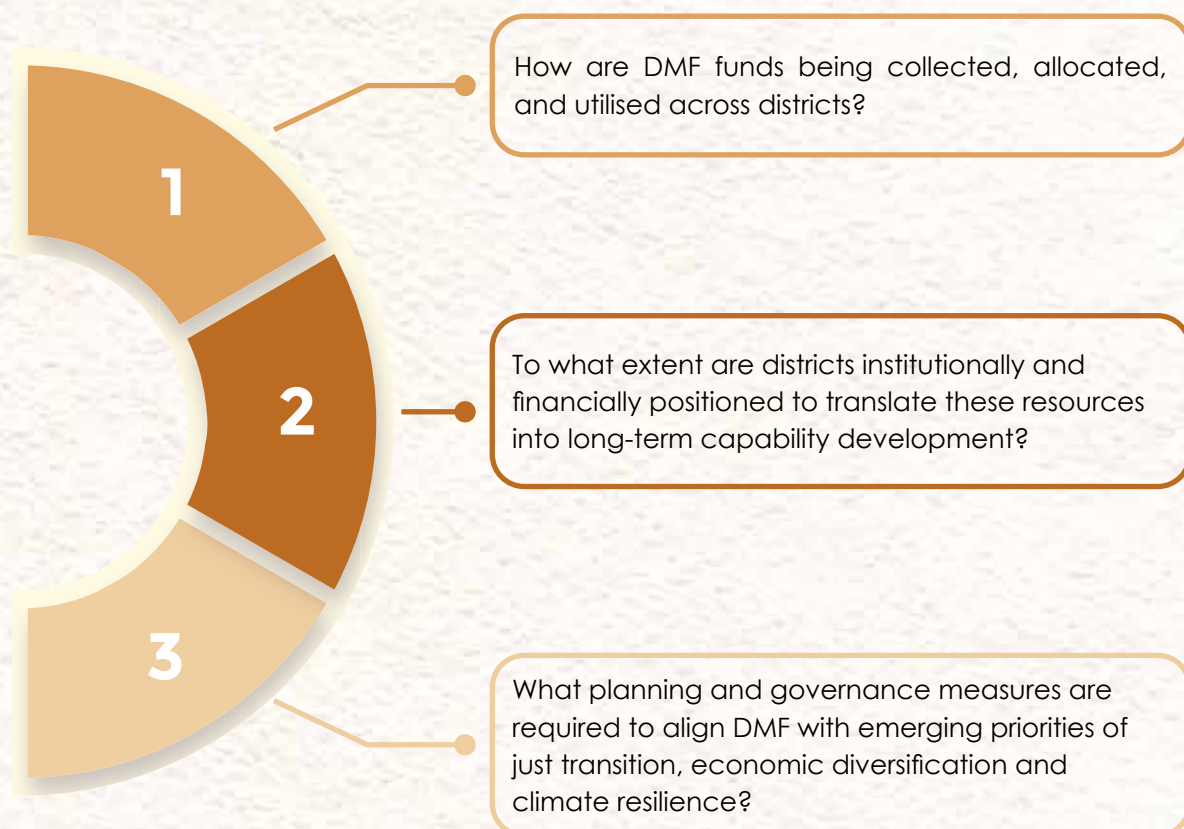
This report responds to this need by examining DMF through the lens of readiness and transition preparedness. Rather than treating efficiency as an end in itself, it explores how financial deployment, institutional systems, and district-level conditions interact to shape the ability of districts to utilise DMF resources in a manner that supports sustained and inclusive development.

Scope and Purpose

The report examines DMF spending patterns in Jharkhand, highlighting key trends, gaps, and actionable insights, rather than assessing performance of districts through ranking or effectiveness of the fund through utilisation metrics.

Moreover, it advances a novel, forward-looking approach by introducing a 'readiness framework' built on key pillars and indicators, aimed at informing strategic, evidence-based decision-making for localised development and just-transition-oriented financial planning.

It is guided by three core questions:



The report aims to strengthen the institutionalisation of DMF as a responsive, accountable, and future-ready financing mechanism for targeted, inclusive, and climate-resilient development outcomes.

2

Legal and Policy Framework of the District Mineral Foundation Trust



The Government of India established the District Mineral Foundation (DMF) through the Mines and Minerals (Development and Regulation) (MMDR) Amendment Act, 2015, to ensure that a share of mining revenues is retained at the district level and reinvested in mining-affected areas. The amendment mandates mining leaseholders to contribute a fixed proportion of royalty payments to district-level DMFs, 30% for leases granted before January 2015 and 10% for those granted thereafter.

The legal basis for DMFs is provided under Section 9B of the MMDR Act, which requires the establishment of district-level trusts in all mining-affected districts. These trusts are intended to channel mineral revenues toward the welfare and development of affected communities, embedding a mandatory reinvestment mechanism within India's resource governance architecture.

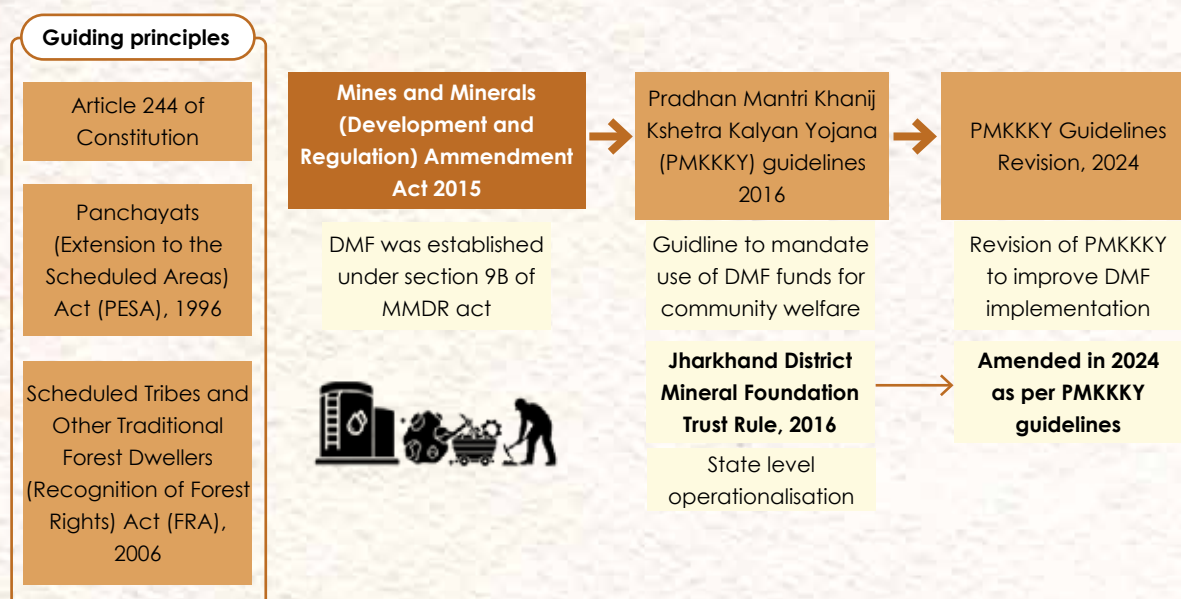
The design and implementation of DMFs operate within a broader constitutional and legal context governing Scheduled Areas and tribal rights. State-level DMF rules are required to align with provisions under Article 244 of the Constitution, as well as with legislations such as the Panchayats (Extension to Scheduled Areas) Act (PESA), 1996, and the Forest Rights Act (FRA), 2006, which define the role of local institutions and community rights in governance processes.

2.1 Evolving Focus and Policy Realignment (PMKKKY Guidelines, 2024)

The utilisation of DMF funds is guided by the framework of the Pradhan Mantri Khanij Kshetra Kalyan Yojana (PMKKKY), which classifies expenditure into priority and non-priority sectors. Under the earlier framework, DMF allocations followed a 60:40 structure, requiring at least 60% of funds to be directed toward high-priority areas and permitting up to 40% for other development needs. High-priority sectors included drinking water supply, health care, education, welfare of women and children, skill development, sanitation, environmental preservation, and measures supporting sustainable livelihoods. The remaining allocation could be utilised for physical infrastructure and other local development requirements.

The revised PMKKKY guidelines issued in 2024 further strengthen the orientation of DMF toward human development and livelihood resilience. Under the revised framework, at least 70% of DMF funds are now mandated to be allocated to high-priority sectors, while expenditure on other sectors is capped at 30%.

In addition, the revised guidelines introduces provisions for five-year perspective planning aligned with annual action plans, encourages the creation of endowment funds for post-mining livelihoods, and strengthens oversight through audit and monitoring mechanisms. These changes signal a shift toward more structured, medium-term planning and a greater emphasis on capability-enhancing investments.



2.2 DMFT Framework in Jharkhand

Jharkhand operationalised the DMF mechanism through the Jharkhand District Mineral Foundation Trust Rules, 2016, which define the composition, roles, and financial management processes of district-level trusts. Each DMF is chaired by the Deputy Commissioner and includes representation from government departments, local bodies, and mining-affected communities.

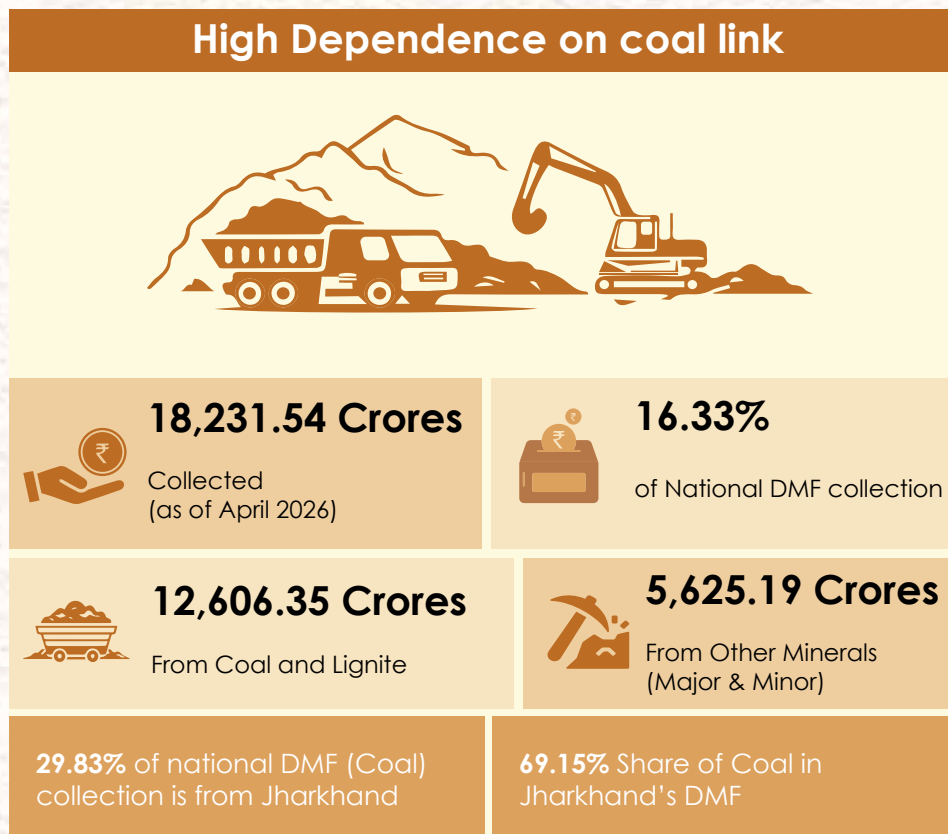
Following the 2024 revision of PMKKKY guidelines, the state has initiated amendments to align its DMF rules with updated provisions on expenditure priorities, endowment creation, and medium-term planning. These changes establish the current policy and operational framework within which DMFs operate in Jharkhand.

3

Jharkhand's DMF Landscape



Jharkhand is one of India's leading states in District Mineral Foundation (DMF) collections, with INR 18,231.54 crore as of April 2026, accounting for 16.33% of the national total. It ranks second after Odisha (25.58%), with both states together contributing nearly 43% of India's DMF corpus, highlighting Jharkhand's central role in mineral-linked development finance.



Source: National DMF portal (Till April, 2026)

At the same time, this fiscal strength is closely tied to coal. Jharkhand leads in coal-based DMF collections, contributing approximately 29.83% of national coal-linked revenues. While this reinforces current resource availability, it also creates long-term vulnerability, as DMF inflows remain linked to a sector undergoing structural transition. This underscores the importance of using existing DMF resources to support diversification, resilience, and transition-oriented development pathways.

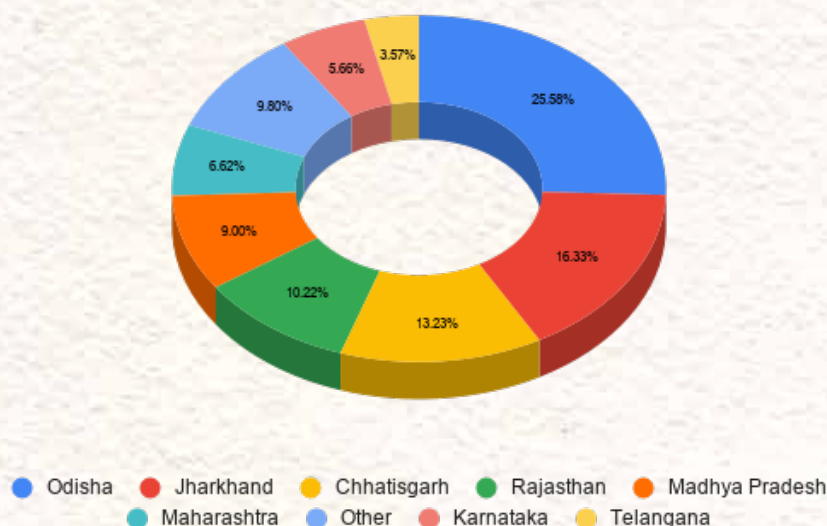


Figure 1: State-wise share in total DMF collection (as of April, 2026)
Source: National DMF portal, CEED analysis

3.1 District-Wise DMFT Distribution

All the 24 districts in Jharkhand have DMFT. **Dhanbad, West Singhbhum, Chatra, Ramgarh, Bokaro and Hazaribagh** account for about 77.8% of total funds with each district having funds over thousand crores. Except for West Singhbhum, these high-collection districts are predominantly coal-mining districts, underscoring how deeply coal dependence is embedded in Jharkhand's district economies and fiscal structures.

Despite the collection, Jharkhand's District Mineral Foundation (DMF) funds have an unspent balance of INR 8,434.47 crore as of April 2026. Even among high-collection districts, substantial balances remain unutilised, indicating gaps between fund availability and expenditure.

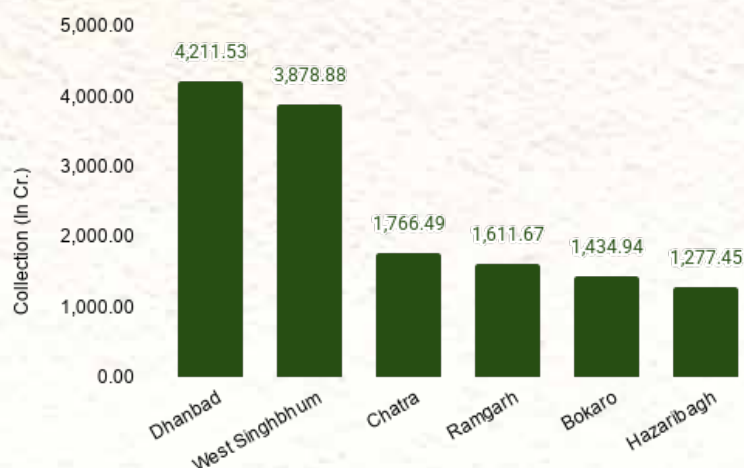


Figure 2: District over 1,000 Cr in DMF collection (till April 2026)
Source: National DMF portal, CEED analysis

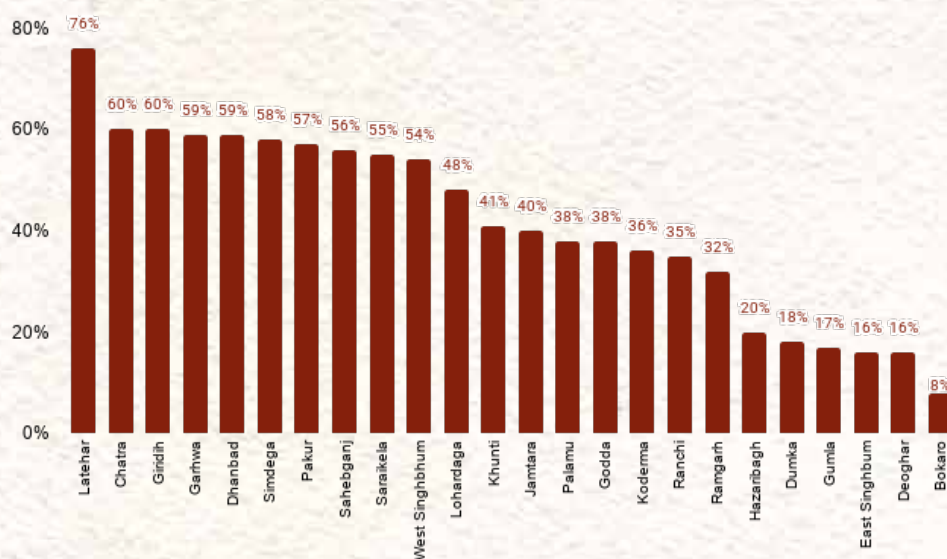


Figure 3: Unspent DMF funds (till April 2026)
Source: DMF portal, CEED analysis

Coal Dependency and DMF Distribution

A significant share of Jharkhand's DMF accruals is concentrated in coal-producing districts such as Chatra, Dhanbad, Bokaro, Ramgarh, Hazaribagh, and Latehar. The concentration of mineral revenues in these districts reflects the centrality of coal extraction to local economies, employment structures, and district-level fiscal flows.

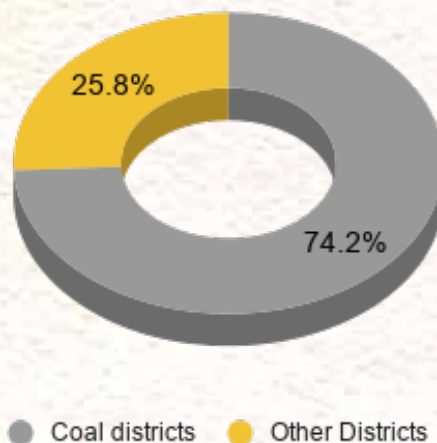


Figure 4: DMF collection from coal and other districts (till April 2026)
Source: DMF portal, CEED analysis

3.2 Efficiency and Allocation Patterns

Allocation to Collection Ratio

Among the 24 districts (Annexure II), Bokaro and Dumka recorded allocation-to-collection ratios exceeding 100%, at 111.08% and 104.80% respectively, followed by Deoghar at 99.29% and Gumla at 94.93%. Ratios above 100% may occur where allocations include not only the principal DMF collections but also additional resources such as interest accrued on unutilised fund balances, resulting in allocations that exceed the amount originally collected during the reporting period.

Godda, Hazaribagh, Ramgarh, and Pakur ranged between 88% and 90%, while Ranchi, Khunti, East Singhbhum, and Palamu fell in the 82–86% band. Latehar, Dhanbad, and Koderma recorded ratios between 78% and 80%, with Jamtara and Sahebganj at 73.47% and 72.44% respectively. The bottom six districts - Lohardaga (66.87%), Chatra (62.23%), Garhwa (61.35%), Saraikela Kharsawan (59.66%), West Singhbhum (56.16%), Giridih (54.13%), and Simdega (51.94%), recorded the lowest ratios, with Simdega at the bottom of the distribution.

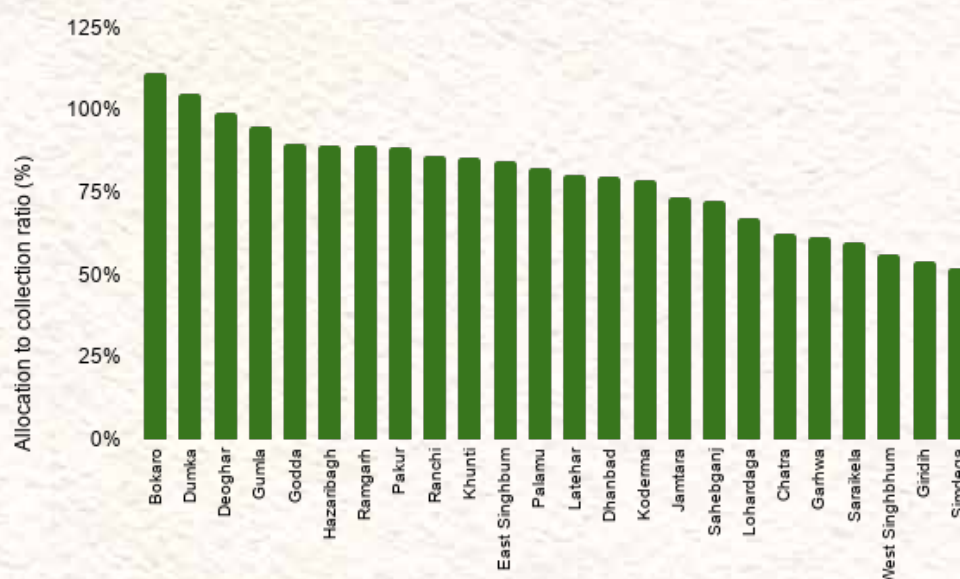


Figure 5: DMF funds allocation (Allocation to collection ratio) of all districts (till April 2026)
Source: DMF portal, CEED Analysis

Expenditure to Collection Ratio

Bokaro registered the highest expenditure-to-collection ratio at 92.07%, indicating comparatively stronger fund utilisation, followed by Deoghar (84.22%) and East Singhbhum (83.51%). Gumla and Dumka also demonstrated relatively high expenditure levels at 83.32% and 81.91% respectively, while Hazaribagh stood at 80.32%. A mid-range cluster comprising Ramgarh, Ranchi, Koderma, Godda, Palamu, and Jamtara recorded ratios between 60% and 68%, with Khunti at 59.30% and Lohardaga at 52.08%. At the lower end of the distribution, West Singhbhum, Saraikela Kharsawan, Sahebganj, Pakur, Simdega, Dhanbad, and Garhwa recorded expenditure-to-collection ratios ranging from 41% to 46%. Giridih and Chatra stood at 39.86% and 39.71% respectively, while Latehar recorded the lowest ratio among all districts at 24.26%. (Annexure II)

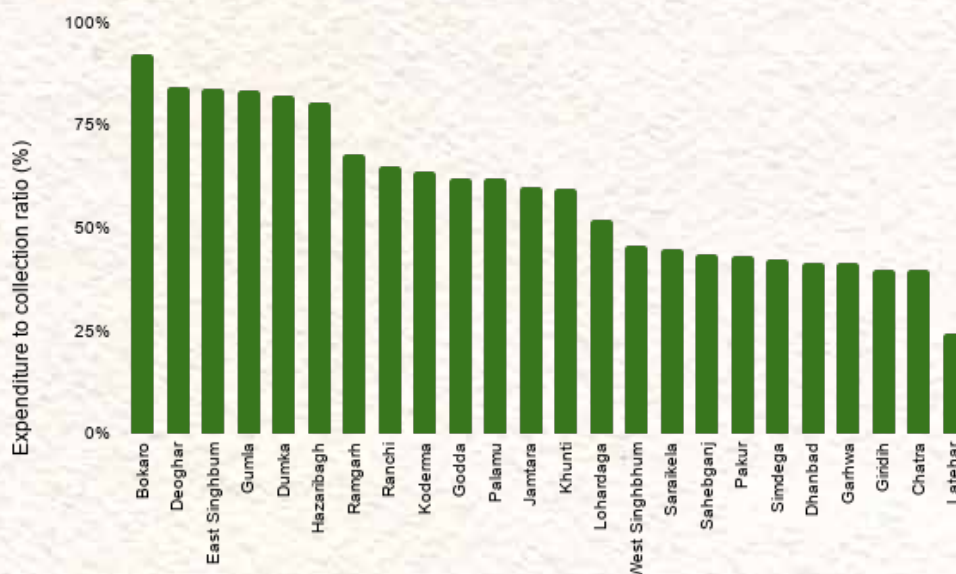


Figure 6: DMF fund Spent (Expenditure to Collection Ratio) of all Districts (till April 2026)
Source: DMF portal, CEED Analysis

3.3 Priority Area Spending

Out of all districts (Annexure II), fifteen (approximately 62%) allocate more than 60% of their total expenditure to high-priority areas, while only eight (33%) exceed the 70% mark. A strong orientation toward high-priority sectors is evident in East Singhbhum, Khunti, Koderma, Bokaro, Palamu and Dumka. Ramgarh, Sahebganj, and Gumla also demonstrate substantial prioritisation.

In contrast, Pakur, Garhwa and Chatra allocate a relatively smaller share to high-priority areas. Districts with lower allocations to high-priority sectors tend to direct a larger proportion of spending toward other categories, particularly Physical Infrastructure (in some cases exceeding 50% of total expenditure).

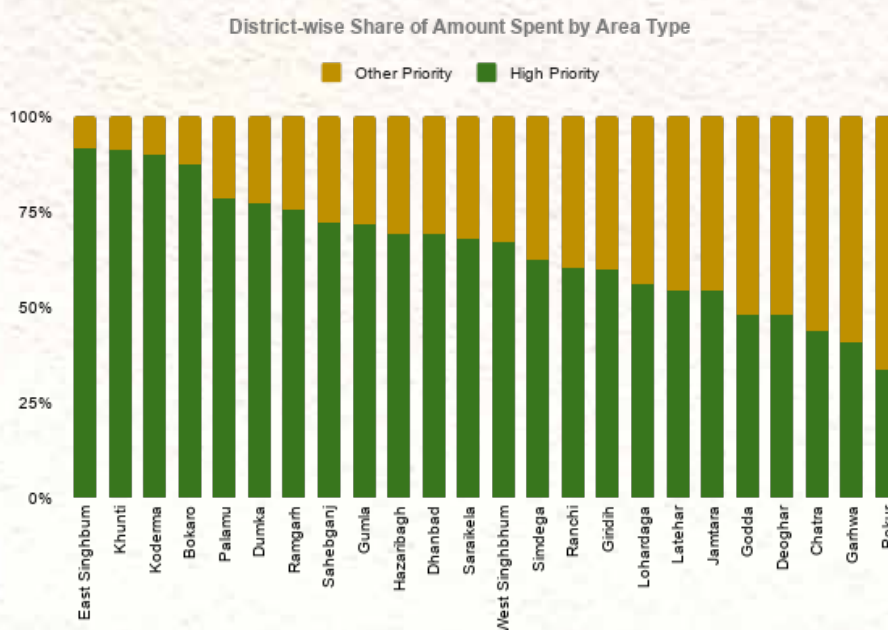


Figure 7: District wise share of amount spent by area type (till April 2026)
Source: DMF portal, CEED Analysis

3.4 Sector Wise Spending

The expenditure pattern indicates a strong concentration of spending on infrastructure and basic services. **Physical Infrastructure (30.28%)** and **Drinking Water Supply (27.13%)** together account for nearly **57% of total expenditure**, suggesting that implementation has largely focused on improving core infrastructure and addressing essential service gaps. **Education (19.32%)** and **Health Care (7.60%)** also receive a significant share of expenditure, reflecting attention toward human development outcomes.

In contrast, sectors related to **livelihood generation and sustainability**, such as **Skill Development (2.57%)**, **Agriculture (0.30%)**, **Animal Husbandry (0.04%)**, and **Energy and Watershed Development (0.26%)**, receive relatively low expenditure. Similarly, spending on **Environment Preservation and Pollution Control Measures (0.83%)** remains limited. The expenditure pattern suggests greater emphasis on immediate infrastructure and service delivery needs than on long-term economic diversification and environmental sustainability.

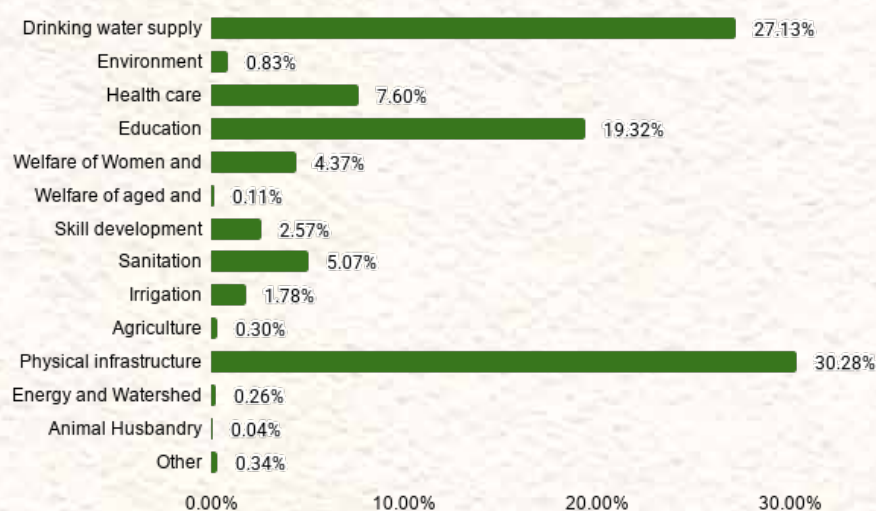


Figure 8: Sector-wise Total DMF Expenditure in Jharkhand (till April 2026)
Source: DMF portal, CEED Analysis

4

From Compensation to Capability Building: The Evolving Role of DMFs



District Mineral Funds were conceived as a compensatory mechanism to address the social, economic and environmental impacts of mining on affected people and areas. By design, DMF channels a share of mineral revenues back into mining-affected areas, linking extraction with local development. However, because DMF revenues are directly tied to extractive activity, their scale and continuity are shaped by the trajectory of the mining sector itself. This distinguishes DMF from conventional development schemes and positions it as a form of place-based public finance embedded within resource-dependent economies.

As India's industrial structure, resource use patterns and environmental priorities evolve, mining-affected districts face a context in which patterns of extraction, fiscal dependence and associated livelihoods are expected to shift significantly. In this context, DMF assumes relevance not only as a mechanism for addressing present deficits, but also as a potential instrument for enabling a Just Transition, supporting communities and local economies in navigating structural changes associated with a gradual shift away from extractive dependence.

4.1 DMF for just transition planning

Recent discussion has increasingly recognised that DMF can play a strategic role in supporting longer-term adaptation and livelihood security in resource-dependent regions. Several studies have highlighted the untapped potential of DMF funds in supporting just transition efforts. The Asian Development Bank (ADB)¹ has pointed out that DMF funds could be scaled up significantly to finance skills development programs tailored to coal workers and other affected groups. TERI² has mentioned DMF as one of the existing levers for Just Transition.

Similarly, NITI³ Aayog has proposed creation of a dedicated non-lapsable "Green Energy Transition India Fund", which would be funded by various resources including DMF resources. The Ministry of Coal's Mining Plan Guidelines 2025⁴ recognise just transformation as an integral component of mine closure planning, explicitly mandating that district administration utilise DMF to address the social and economic impacts of closure in affected areas. The guidelines establish a dedicated 10% corpus from the final mine closure escrow fund to support socio-economic transition after closure. For coal-dependent districts in Jharkhand, this has an important planning implication: DMF revenues are likely to taper at precisely the moment when transition expenditure needs peak. This makes long-horizon DMF planning and endowment fund provisioning not just strategically desirable but fiscally necessary.

1. <https://www.adb.org/news/features/ensuring-just-transition-key-india-energy-transition-goals>

2. <https://teri.in/sites/default/files/2024-02/Just%20Transition%20Framework%20for%20a%20Sustainable%20Future%20in%20India's%20Coal%20Mining%20Regions.pdf>

3. https://www.niti.gov.in/sites/default/files/2022-11/Report_Just-Transition-Committee_compressed.pdf

4. <https://coal.nic.in/sites/default/files/2025-01/31-01-2025a-wn.pdf>

4.2 What a Transition-Ready DMF Portfolio Looks Like

Translating this policy intent into practice requires moving from broad commitments toward a more structured understanding of what transition-oriented DMF investment actually entails at the district level. A transition-ready DMF portfolio is not a single template but a context-specific combination of investments across three interconnected areas:

Human Capital and Livelihood Diversification. In coal-dependent districts such as Dhanbad, Ramgarh, and Chatra, where employment is closely tied to mining and ancillary industries, transition readiness begins with building transferable skills and alternative income pathways. This means DMF investments in vocational training aligned with emerging sectors such as renewable energy installation and maintenance, construction, agro-processing, and logistics, rather than generic skill programmes disconnected from local labour market demand. Endowment fund provisions under PMKKKY 2024 offer a mechanism to sustain such investments beyond annual budget cycles, creating longer-horizon livelihood support rather than one-time interventions.

Environmental Restoration as Economic Opportunity. Mining leaves behind degraded land, disrupted water systems, and compromised air quality, that represent opportunities if addressed through DMF. Land reclamation, afforestation, and watershed restoration generate local employment while rebuilding ecological assets. In districts such as West Singhbhum and Latehar, where environmental degradation is acute and utilisation of DMF funds remains low, structured environmental restoration programmes could simultaneously address ecological deficits and provide near-term employment to affected communities. These investments also strengthen long-term agricultural and water security, reducing vulnerability as mining activity contracts.

Energy Transition Participation. Mining-affected communities frequently bear the costs of energy production through displacement, pollution, and land use change without reliably benefiting from energy access. Investments in decentralised renewable energy, including solar electrification and community-level energy initiatives in mining-affected areas, can strengthen household energy security and create opportunities for communities to participate in the energy transition.

5

DMF Readiness Assessment Framework



The DMF Readiness Framework assesses the extent to which districts are positioned to effectively utilise DMF resources to build long-term capabilities for economic diversification, resilience, transition, and long-term development in mining-affected regions. This includes both the administrative and financial capacity to deploy funds, as well as the broader socio-economic conditions that shape how such investments translate into outcomes.

The framework distinguishes between readiness factors, which capture financial and institutional capacity, and contextual conditions, which reflect underlying socio-economic vulnerability influencing development outcomes.

The DMF Readiness Index is developed as a structured assessment framework to support comparative analysis across districts and to inform planning and prioritisation. The index is applied across all districts of Jharkhand, recognising that the scale of mining activity, DMF fund collections, and socio-economic conditions vary considerably across districts.

5.1. Structure of the Framework

The framework is organised into two components:

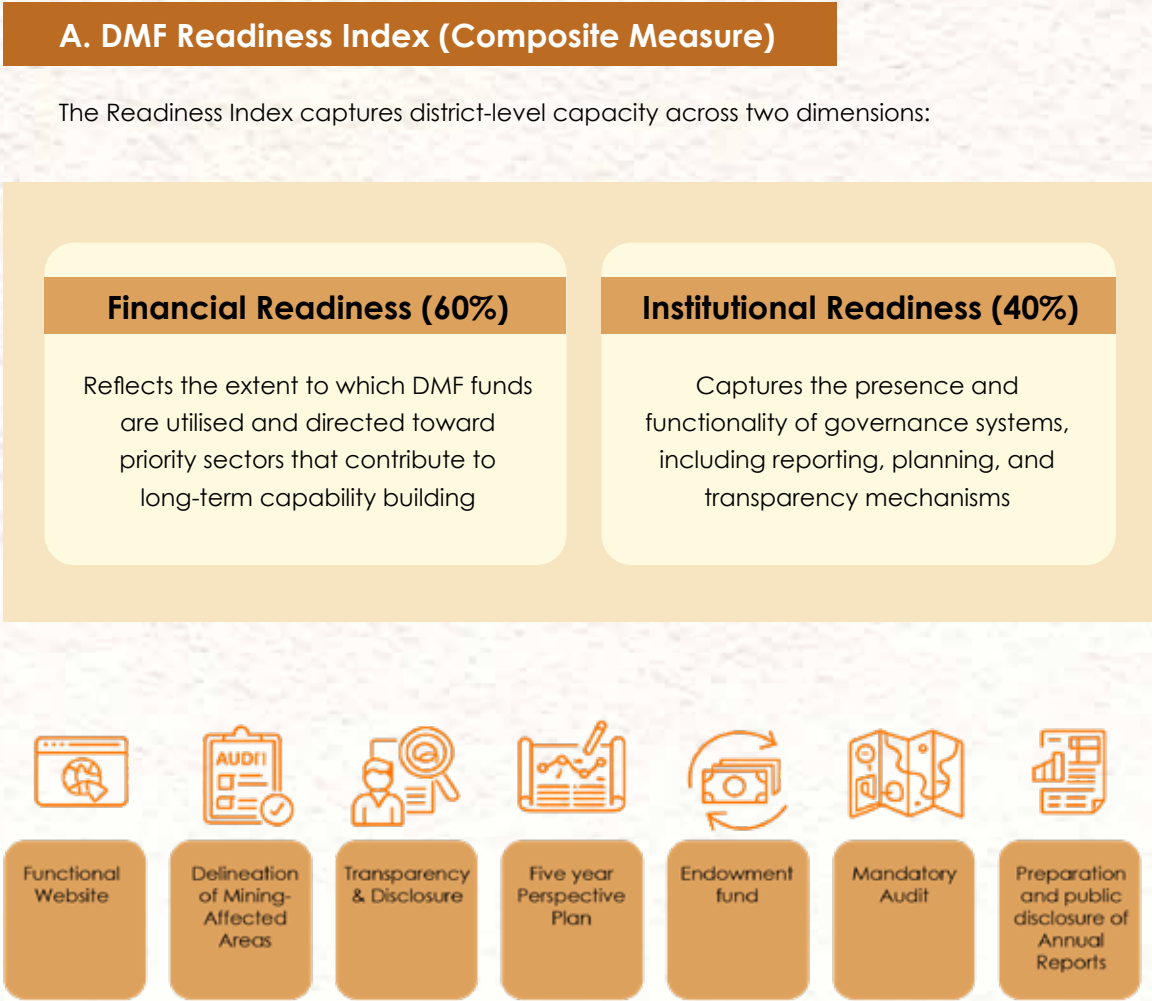


Figure 9: Key Provisions Mandated under DMF Rules and PMKKKY Guidelines

B. Socio-Economic Context (Analytical Layer)

Alongside readiness indicators, the framework incorporates a socio-economic context layer to assess underlying developmental vulnerability across districts. The assessment includes indicators related to poverty, educational attainment, labour force participation, nutrition, and human development outcomes, which influence the ability of communities to benefit from DMF investments and adapt to long-term economic transitions.

Socio-economic vulnerability is analysed separately from the composite readiness index and is used to contextualise district performance. Districts with similar readiness levels may differ significantly in their development outcomes due to underlying structural conditions. To support interpretation, districts are classified into low, moderate, and high vulnerability categories based on composite socio-economic scores, enabling a more nuanced understanding of transition vulnerability, adaptive capacity, and differentiated development needs.

5.2. Indicator Selection and Construction

Indicators were selected based on three criteria: relevance to long-term capability development and transition preparedness, availability and consistency of district-level data, and interpretability within a policy context.

Financial Readiness

Financial readiness is assessed using indicators that capture both utilisation and sectoral orientation of DMF expenditure:

- Unspent DMF balance (reverse indicator)
- Expenditure on health care
- Expenditure on education
- Expenditure on skill development and livelihoods
- Expenditure on drinking water and sanitation
- Expenditure on environment and land restoration
- Expenditure on Energy and Watershed Development
- Expenditure on Agriculture

These sectors are treated as proxies for investments in human capital, livelihoods, and environmental sustainability.

Each indicator is normalised and assigned weights based on its relative importance. The weighted values are aggregated to generate a financial readiness score.

Institutional Readiness

Institutional readiness captures the presence and functionality of basic governance systems mandated under DMF rules and guidelines, including:

- Delineation of mining-affected areas
- Availability of annual DMF reports
- Presence of a perspective five-year plan
- Availability and functionality of DMF websites

Indicators are converted into ordinal scores to reflect variation in quality (e.g., functional vs non-functional systems), and aggregated using predefined weights.

Table 1: Pillars, indicators and weightage for index calculation

Pillar	Pillar Weight	Indicator	Indicator Weight	Relevance
Institutional Readiness	40	Delineation of Mining-Affected Areas	10%	Ensures DMF resources are targeted to genuinely mining-affected geographies, forming the foundation for equitable planning and impact.
		Annual DMF Reports Publicly Available	10%	Reflects transparency and administrative discipline.
		DMF Website Exists and Is Functional	10%	Indicates basic institutional capacity for information disclosure, citizen access, and public accountability.
		Perspective five-year Plan Available	10%	Signals strategic planning aligned with PMKKKY guidelines.
Financial Readiness	60	Unspent DMF Balance (Utilisation Capacity)	20%	Reflects administrative and implementation capacity to convert available financial resources into on-ground investments.
		Health Care Expenditure	5.7%	Strengthens basic health systems and supports long-term human productivity.
		Education Expenditure	5.7%	Builds foundational human capital for future workforce readiness.
		Skill Development & Livelihoods Expenditure	5.7%	Supports employment diversification and economic resilience.
		Drinking Water & Sanitation Expenditure	5.7%	Improves basic living conditions and public health outcomes.
		Energy and Watershed Development	5.7%	Enhances resource security, climate resilience, and sustainable rural infrastructure.
		Agriculture	5.7%	Strengthens local livelihoods, supports diversification, and reduces economic dependence on mining.
		Environment & Land Restoration Expenditure	5.7%	Addresses ecological impacts of mining and supports long-term sustainability.

5.3. Method

The assessment examines financial and institutional readiness across districts as distinct dimensions of DMF planning and implementation.

All financial indicators are normalised to ensure comparability across districts. Reverse indicators are adjusted so that higher values consistently represent stronger performance.

Weighted aggregation is used to construct pillar scores. Financial indicators are assigned weights that sum to 60, while institutional indicators are assigned weights that sum to 40, reflecting their relative importance in shaping DMF outcomes.

The composite DMF Readiness Index is calculated as:

Readiness Index = Financial Score (60%) + Institutional Score (40%)

The resulting index ranges from 0 to 100 and enables comparison of district-level readiness based on capacity to utilise DMF resources effectively.

Districts are interpreted based on:

- › their composite readiness scores
- › the relative contribution of financial and institutional dimensions
- › underlying socio-economic conditions

For analytical clarity, districts are grouped into broad categories reflecting relative levels of readiness. Socio-economic context is used to interpret how readiness translates into development outcomes, rather than being included in the index itself.

Socio Economic Context

For socio economic analysis, each indicator is normalised on a 0-1 scale, with adverse indicators adjusted appropriately, and aggregated to generate a composite socio-economic vulnerability score. Higher scores indicate greater socio-economic vulnerability (Annexure IV).

The resulting scores are classified into low, moderate, and high vulnerability categories to support comparative assessment across districts. The classification helps identify regions where DMF investments may need to prioritise foundational development gaps, livelihood resilience, social infrastructure, and human capability enhancement as prerequisites for long-term transition preparedness.

5.4 Data Sources

The FRI draws on multiple secondary data sources to ensure comprehensive coverage across dimensions (see Annexure III). These include:

- DMF Portal data on district-level collections, allocations, and expenditures (as of April 2026)
- CEED analysis of sectoral expenditure patterns and utilisation trends
- District-level DMF plans, annual reports, and administrative disclosures
- Government datasets, including PLFS (2023-24), UDISE+ (2024-25), and NFHS-5 (2019-21)

Where data gaps or inconsistencies were identified, information was triangulated across sources to improve reliability and comparability.

The analysis is supplemented by informal discussions with stakeholders and individuals in mining-affected areas to provide contextual insights into implementation challenges.

5.5 Limitations

The FRI is designed as a diagnostic framework and does not measure development outcomes such as income diversification, employment transitions, or environmental recovery. It assesses readiness based on available proxies rather than direct measures of long-term impact.

- Socio-economic indicators included in the framework represent underlying development conditions rather than administrative readiness. These are intended to contextualise district capacity and should not be interpreted as determinants of prioritisation.
- Data sources are drawn from different time periods, reflecting limitations in the availability of consistent and up-to-date district-level data. As a result, comparisons across indicators should be interpreted with caution.
- The framework is intended to identify broad patterns and contrasts rather than precise quantitative rankings.

6

District-Level Readiness Patterns under DMF



The district-level analysis examines variation across Jharkhand along two dimensions: DMF readiness, capturing financial utilisation and institutional systems, and socio-economic context, reflecting the underlying conditions that shape how investments translate into outcomes. Together, these dimensions offer a broad orientation for planning support, not a definitive assessment of district performance or capacity.

Financial readiness emerges as the primary source of variation. Larger DMF collections do not determine stronger deployment. Execution capacity, institutional systems, and planning discipline are the binding constraints. No district currently demonstrates a fully operational five-year perspective plan as mandated under PMKKKY Guidelines 2024, representing a structural gap across the state.

Socio-economic conditions further shape how effectively DMF investments generate outcomes. Crucially, vulnerability does not always align with readiness reinforcing that development need and planning capacity are distinct considerations that must both inform district-level responses.

Table 2: Score of district DMF readiness and socio-economic Context

District	Financial Score	Institutional Score	Composite Score	Socio-Economic vulnerability
Bokaro	32.19	25	57.19	Low
Gumla	26.74	25	51.74	Moderate
Ramgarh	20.31	25	45.31	Low
Khunti	25.12	20	45.12	Moderate
Hazaribagh	24.56	20	44.56	Moderate
Godda	15.56	25	40.56	Moderate
East Singhbhum	25.49	15	40.49	Low
Deoghar	22.64	15	37.64	Moderate
Dumka	21.67	15	36.67	Moderate
Dhanbad	11.33	25	36.33	Low
Palamu	14.81	20	34.81	Moderate
Simdega	14.69	20	34.69	High
Sahibganj	14.43	20	34.43	High
Latehar	9.10	25	34.10	Moderate
Ranchi	19.01	15	34.01	Low
Koderma	25.30	5	30.30	Moderate
Jamtara	15.15	15	30.15	Moderate
Lohardaga	13.66	15	28.66	Moderate
West Singhbhum	12.61	15	27.61	High
Garhwa	10.56	15	25.56	Low
Chatra	10.36	15	25.36	High
Saraikela Kharsawan	19.79	5	24.79	Moderate
Giridih	10.11	10	20.11	Moderate
Pakur	9.57	10	19.57	High

Planning Orientations

Taken together, the analysis broadly indicates three planning orientations across Jharkhand's districts. Districts including Bokaro, Ramgarh, Hazaribagh, East Singhbhum, and Ranchi are relatively better positioned to expand the scope of DMF investments toward longer-horizon priorities such as livelihood diversification, environmental restoration, and transition planning. Several districts present mixed profiles where targeted support, addressing specific gaps in either financial utilisation, institutional systems, or sectoral alignment is likely to yield meaningful improvements. West Singhbhum, Pakur, Chatra, Simdega, and Sahebganj, would benefit from a sequenced approach that begins with strengthening basic service delivery and institutional capacity before expanding to more complex, multi-sector investments.

These orientations are broad and indicative. Districts within each group vary considerably, and planning responses must be informed by district-specific conditions, community priorities, and ground-level implementation realities.

Planning Orientation	Context	Planning Focus	Districts
Higher readiness - Lower vulnerability	• Stronger fund utilisation • Institutional continuity • Enabling socio-economic base	• Livelihood diversification • Green jobs and skill ecosystem development • Environmental restoration • Just transition planning • Multi-sector low carbon investment	• Bokaro • Ramgarh • Hazaribagh • East Singhbhum • Ranchi
Partial readiness - Moderate vulnerability	• Partial utilisation capacity • Uneven sectoral allocation • Varied socio-economic context	• Reorienting expenditure toward high-priority sectors • Governance strengthening • Priority sector alignment • Human capital investment for climate compatible growth • Alternative livelihood generation	• Gumla • Khunti • Godda • Dhanbad • Deoghar • Dumka • Palamu • Latehar • Koderma • Jamtara • Lohardaga • Garhwa • Saraikela Kharsawan • Giridih
Lower readiness - Higher vulnerability	• Limited fund utilisation • Institutional gaps • Higher deprivation levels	• Basic service delivery • Institutional strengthening • Skilling and re-skilling • Sequenced investment toward economic diversification • Community-level and indigenous people-centric engagement	• West Singhbhum • Pakur • Chatra • Simdega • Sahebganj

7

Strengthening DMFs for Future Readiness



DMF resources in Jharkhand are place-based, predictable, and explicitly directed at mining-affected areas making them a distinctive instrument within the state's development finance architecture. Yet as the preceding analysis indicates, their effectiveness depends not on scale alone but on the alignment between planning systems, institutional capacity, and district-level conditions.

As economic activities undergo structural change, DMF can move beyond compensation toward building the capabilities, livelihoods, and resilience that mining-affected communities will need in the years ahead. The recommendations below are structured around four interconnected pillars - planning and governance, Inclusive development, just transition and economic resilience, and energy security and climate resilience. They apply across districts but carry different urgency depending on planning orientation; districts in the lower readiness category should prioritise governance and execution foundations before advancing to the investment priorities outlined here.



I. Planning and Governance

Strengthen Financial Execution, Governance and Planning

Large unspent balances across districts reflect execution and institutional capacity gaps rather than lack of resources. Regular monitoring of allocations, expenditures, and unspent balances, along with timely governing body meetings, public disclosure of reports, and functional district websites, can improve transparency and accountability. Technical support in procurement, project management, and coordination is also critical, especially in high fund-inflow districts.

Jharkhand's districts should also operationalise five-year perspective plans, as mandated under the revised PMKKKY Guidelines 2024, to move beyond fragmented annual spending toward more strategic and coherent medium-term planning.

Promote Learning from Best Practices and Institutional Innovation

State-level platforms for documenting and disseminating successful planning approaches, project models, financing strategies, and monitoring frameworks can support more effective and consistent utilisation of DMF resources across districts. Learning from emerging best practices within and outside the state can help districts strengthen project design, community engagement, livelihood planning, and environmental restoration efforts. In cases where development challenges are regional in nature, neighbouring districts may also explore collaborative approaches for initiatives such as skilling programmes, ecological restoration, and shared technical support systems.



II. Investment Priorities for Inclusive Development

Sequence Investments Based on District Context

A uniform planning approach is unlikely to be effective across Jharkhand's varied district contexts. Districts with stronger institutional and socio-economic conditions may be better positioned for complex, multi-sector investments, while districts facing deeper constraints may benefit from beginning with foundational service delivery before expanding in scope.

Districts with high coal revenue dependence face greater long-term fiscal vulnerability. Planning support for these districts should account for both present readiness and future transition exposure, prioritising early investment in economic diversification.

Align Investments with Human Capability Development

Education, health, nutrition, and access to basic services form the foundation for long-term economic participation. Districts with stronger human capital indicators are better placed to convert DMF expenditure into sustained outcomes making these investments both a development priority and a transition prerequisite.

Strengthen Gender-Inclusive Capacity Building

Female labour force participation remains low across several districts, and women in mining-affected areas face compounded barriers such as limited skilling access, restricted mobility, and disproportionate exposure to mining impacts. DMF investments in health, education, and skills should be designed with gender-differentiated needs in mind and monitored for outcomes disaggregated by gender. Women's groups, self-help groups, and local panchayat bodies represent important channels for ensuring investments reflect the needs of the most affected populations.

Strengthen Community Engagement and Social Audit

Many mining-affected communities remain unaware of DMF resources available to them, limiting their ability to engage with planning or demand accountability. Structured engagement with Gram Sabhas and local representatives can improve alignment between planning and community priorities. Periodic social audits at the district and Gram Sabha level can enable independent verification of project selection, fund utilisation, and on-ground outcomes, creating structured feedback loops for course correction.



III. Just Transition and Economic Resilience

Build Alternate Livelihood Pathways Beyond Mining

DMF resources should support employment generation and livelihood diversification, particularly in coal mining-dependent districts. Relevant areas include skill development aligned with market demand, ecosystem and land restoration, environmental services, and labour-intensive activities outside the extractive sector.

Endowment fund provisions under the revised PMKKKY guidelines offer a mechanism to structure these investments over longer time horizons, supporting sustained livelihoods rather than one-time opportunities.

Support Economic Diversification in Coal-Dependent Districts

Districts with high coal revenue dependence face a compounded challenge, current fiscal reliance on a sector undergoing transition, alongside limited economic alternatives. DMF can serve as an early instrument for diversification, supporting market-linked skill development, agro-based enterprises, tourism, and other non-extractive economic activities that can provide an employment base as mining activity evolves.

Cross-district and cross-sector coordination including alignment with state industrial policy and employment schemes can strengthen the reach and sustainability of these investments.

Invest in Skilling and Reskilling of Mining-Dependent Workers

Districts should move away from generic skill programmes toward demand-linked vocational training tailored to local labour market conditions. Endowment fund provisions under PMKKKY 2024 offer a mechanism to sustain these investments over longer time horizons.



IV. Energy Security and Climate Resilience

Integrate Energy Security into DMF Planning

Mining-affected communities frequently bear the environmental costs of energy production without reliably benefiting from energy access. Investments in decentralised renewable energy, including solar access for mining-affected villages can improve household energy security, reduce expenditure, and align with national energy transition commitments. Such investments can ensure that communities benefit from the energy transition instead of only bearing its social and economic effects.

Prioritise Environmental Restoration and Climate Adaptation

Expenditure towards environmental restoration, land reclamation, watershed development, afforestation can address mining's ecological footprint while generating local employment. Integrating climate adaptation into DMF planning can strengthen the long-term durability of development outcomes in districts already under economic and environmental stress. Environmental investments currently remain negligible across most districts; expanding this allocation is both an ecological imperative and a resilience investment.

Conclusion

The findings of this report indicate that the key challenge is not the availability of financial resources, but the ability to translate these resources into planned, targeted, and sustained development outcomes. Despite the state accumulating one of the largest DMF corpora in India, substantial unspent balances and variation in expenditure patterns across districts suggest that financial scale alone does not guarantee impact.

The concentration of DMF revenues in coal-producing districts also introduces an important long-term consideration. While coal-linked revenues currently provide considerable fiscal space, this dependence creates vulnerabilities as economic and energy systems evolve. The strategic use of current DMF resources therefore becomes increasingly important, particularly in strengthening livelihoods, building local capacities, improving access to social services, and supporting economic diversification in mining-affected regions.

The recent revisions to PMKKKY guidelines provide an opportunity to strengthen the role of DMF through improved planning, greater accountability, and a stronger focus on long-term outcomes. Realising this potential, however, will require stronger institutional capacities, more integrated planning approaches, and greater community participation in decision-making processes.

Ultimately, the effectiveness of DMF will be determined not by the size of funds collected, but by the extent to which these resources improve the well-being and resilience of mining-affected communities. Used strategically, DMF can evolve from a compensatory mechanism linked to mining into an instrument that supports inclusive, resilient, and sustainable development pathways for Jharkhand.

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Annexures

Annexure I

District	Collection (In Cr.)	Amount Allocated (In Cr.)	Amount Spent (In Cr.)	Unspent Amount (In Cr.)
Bokaro	1,434.94	1,593.9	1,321.19	113.75
Chatra	1,766.49	1,099.2	701.4	1065.09
Deoghar	232.59	230.95	195.89	36.7
Dhanbad	4,211.53	3348.2	1,747.51	2464.02
Dumka	108.58	113.79	88.94	19.64
East Singhbhum	140.54	118.71	117.36	23.18
Garhwa	20.05	12.3	8.27	11.78
Giridih	78.17	42.31	31.16	47.01
Godda	824.6	738.96	510.14	314.46
Gumla	145.82	138.42	121.5	24.32
Hazaribagh	1,277.45	1,137.43	1,026.01	251.44
Jamtara	13.76	10.11	8.25	5.51
Khunti	21.99	18.84	13.04	8.95
Koderma	22.82	17.93	14.52	8.3
Latehar	610.06	487.92	147.99	462.07
Lohardaga	61.12	40.87	31.83	29.29
Pakur	940.35	832.85	404.05	536.3
Palamu	199.74	164.12	123.46	76.28
Ramgarh	1,611.67	1434.4	1,092.85	518.82
Ranchi	239.43	206.26	155.35	84.08
Sahebganj	339.91	246.24	148.41	191.5
Saraikela Kharsawan	37.13	22.15	16.61	20.52
Simdega	13.92	7.23	5.89	8.03
West Singhbhum	3,878.88	2,178.49	1,765.45	2113.43

Source: National DMF Portal (2026)

Annexure II

District	Allocation to collection ratio (%)	Expenditure to collection ratio (%)	Expenditure to allocation ratio (%)	% of total expenditure to high priorities areas	% of total expenditure to other priorities areas
Bokaro	111.08	92.07	82.89	87.25	12.75
Chatra	62.23	39.71	63.81	43.93	56.07
Deoghar	99.29	84.22	84.82	48.09	51.91
Dhanbad	79.50	41.49	52.19	69.27	30.73
Dumka	104.80	81.91	78.16	77.26	22.74
East Singhbhum	84.47	83.51	98.86	91.91	8.09
Garhwa	61.35	41.25	67.24	40.59	59.41
Giridih	54.13	39.86	73.65	59.89	40.11
Godda	89.61	61.87	69.03	48.10	51.90
Gumla	94.93	83.32	87.78	71.89	28.11
Hazaribagh	89.04	80.32	90.20	69.32	30.68
Jamtara	73.47	59.96	81.60	54.31	45.69
Khunti	85.68	59.30	69.21	91.44	8.56
Koderma	78.57	63.63	80.98	89.93	10.07
Latehar	79.98	24.26	30.33	54.53	45.47
Lohardaga	66.87	52.08	77.88	56.04	43.96
Pakur	88.57	42.97	48.51	33.68	66.32
Palamu	82.17	61.81	75.23	78.37	21.63
Ramgarh	89.00	67.81	76.19	75.42	24.58
Ranchi	86.15	64.88	75.32	60.14	39.86
Sahebganj	72.44	43.66	60.27	72.19	27.81
Saraikela Kharsawan	59.66	44.73	74.99	67.82	32.18
Simdega	51.94	42.31	81.47	62.31	37.69
West Singhbhum	56.16	45.51	81.04	67.25	32.75

Annexure III

Data sources

DMF data:	National DMF Portal, CEED Analysis
Poverty Rate:	NITI Aayog – Multidimensional Poverty Index (MPI) 2023
Female labour force participation rate:	PLFS (2023-24), CEED Analysis
Youth Literacy (Secondary and above):	PLFS (2023-24), CEED Analysis
Transition Rates Middle to Secondary:	UDISE+ Data, 2024-25
Children under 5 years who are stunted:	NFHS 5 (2019-21)

Annexure IV

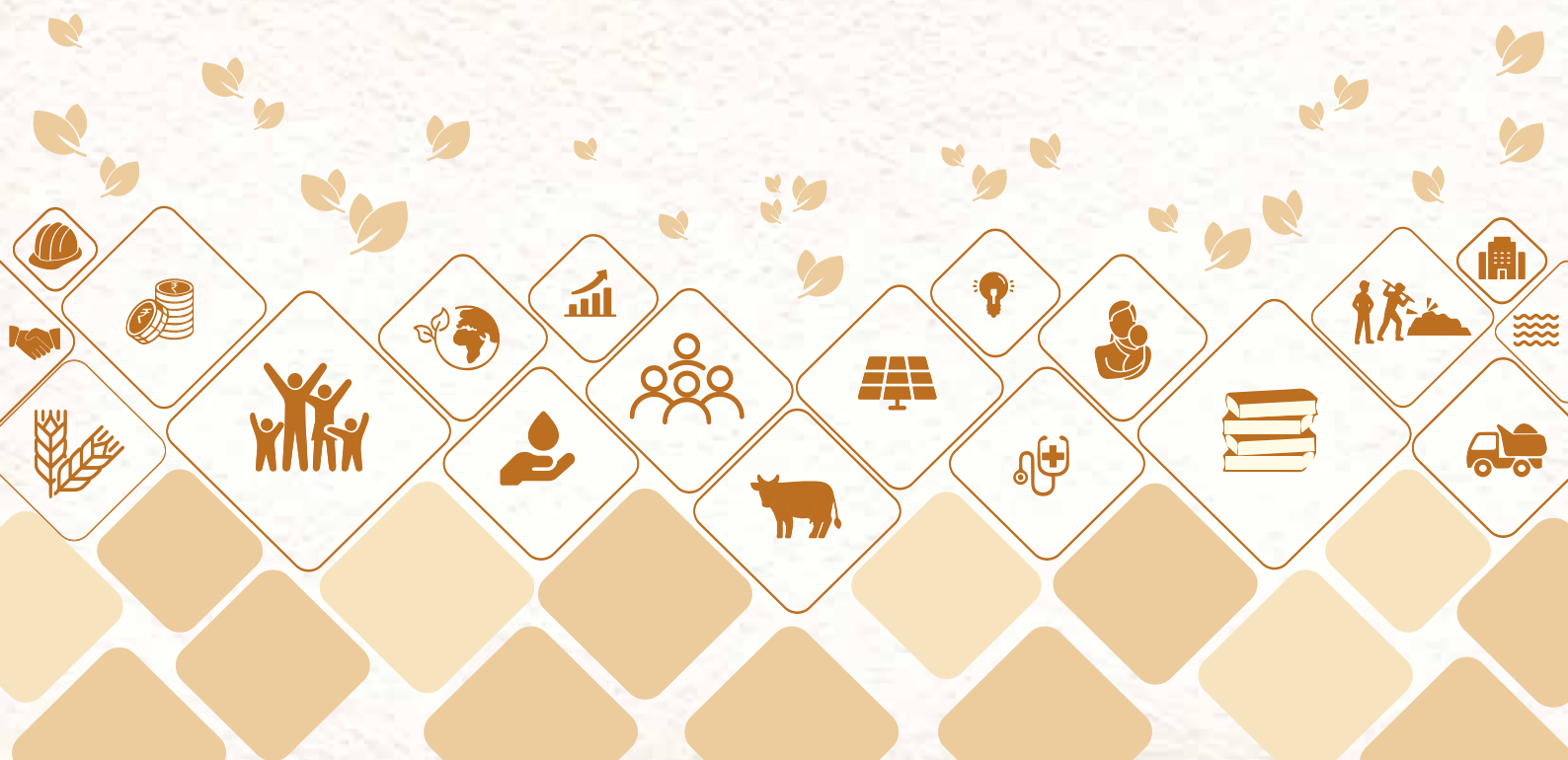
The socio-economic context reflects district-level human development conditions that influence how effectively DMF investments translate into outcomes. It includes poverty, female labour force participation, education, and child nutrition indicators.

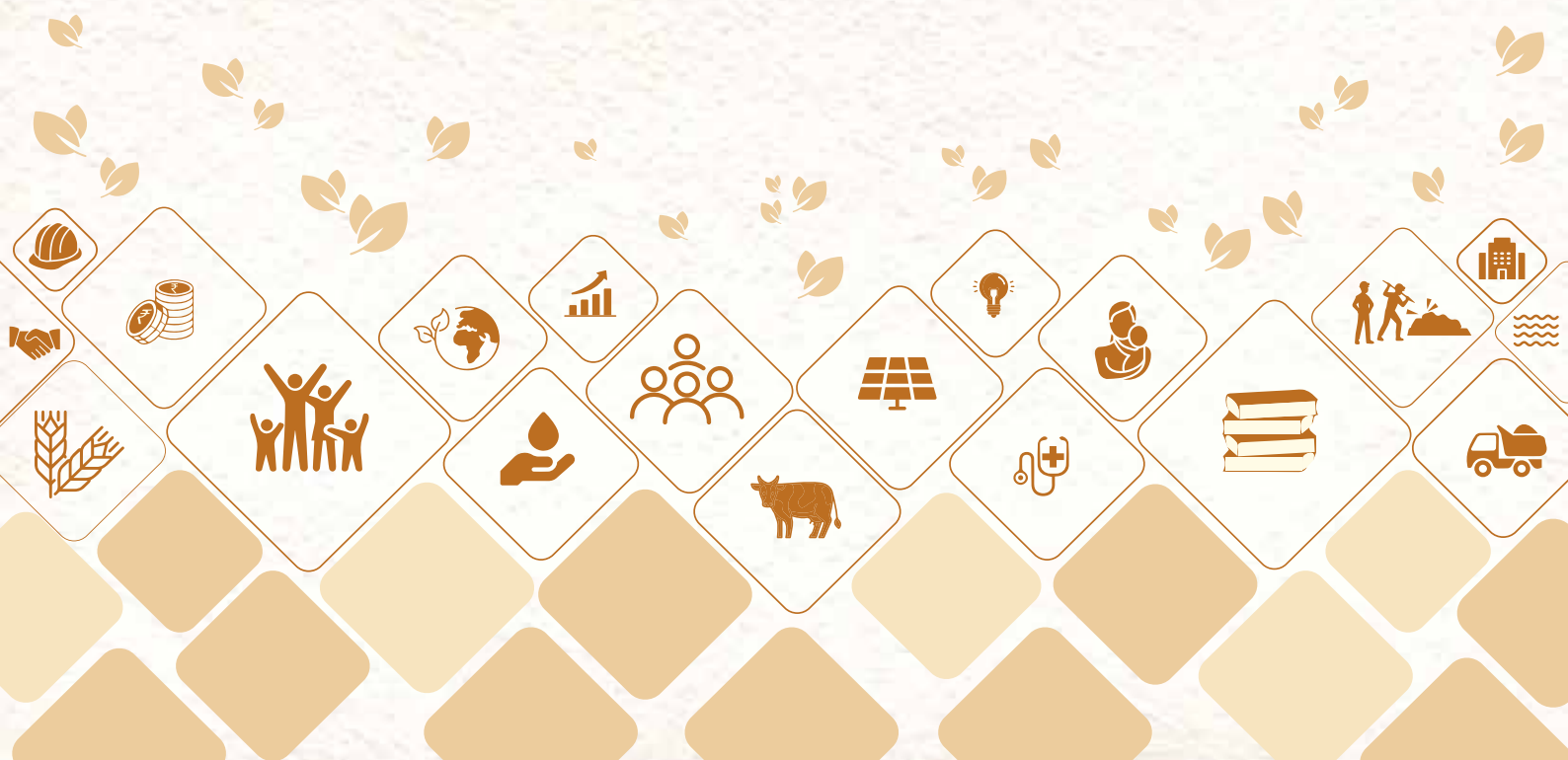
Each indicator is normalised on a 0-1 scale (with adverse indicators adjusted), and then averaged to generate a composite score. Lower scores indicate greater socio-economic vulnerability, helping identify districts where DMF needs to prioritise basic development gaps.

Indicator	Description
Poverty Rate (%)	Proportion of population living below poverty line
Female Labour Force Participation Rate (FLFPR) (%)	Share of women participating in the workforce
Youth Literacy (15–24 years, secondary & above) (%)	Percentage of youth with at least secondary education
Transition Rate (Middle to Secondary) (%)	Proportion of students moving from middle to secondary level
Children under 5 who are stunted (%)	Percentage of children with low height-for-age

District-wise Socio-Economic Vulnerability Classification in Jharkhand

District	Socio Economic	Vulnerability Category
Bokaro	33.93	Low
Chatra	63.82	High
Deoghar	58.07	Medium
Dhanbad	33.79	Low
Dumka	56.89	Medium
East Singhbhum	26.42	Low
Garhwa	42.29	Low
Giridih	50.83	Medium
Godda	54.36	Medium
Gumla	51.09	Medium
Hazaribagh	47.44	Medium
Jamtara	54.44	Medium
Khunti	44.04	Medium
Koderma	50.82	Medium
Latehar	53.31	Medium
Lohardaga	48.17	Medium
Pakur*	77.12	High
Palamu	52.92	Medium
Ramgarh	34.00	Low
Ranchi	26.83	Low
Sahebganj	77.24	High
Saraikela Kharsawan	44.67	Medium
Simdega	63.77	High
West Singhbhum	77.95	High







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