

The Failure of Mineral-Based Development in Afghanistan

Mohammad Farid Tawakoly

China West Normal University, China

farid.tawakoly@outlook.com

ABSTRACT

Afghanistan's mineral endowment has not produced broad-based development. This article explains the gap through a structured qualitative review of peer-reviewed sector studies and authoritative institutional evidence, updated through mid-2026. Sources are coded against five observable constraints: governance and allocation, security and regulatory risk, infrastructure and capability, formalization and economic linkages, and distribution and welfare. Recent output growth and contract announcements show extractive activity, but coal-export volatility, weak disclosure, limited project implementation, and persistent deprivation indicate that extraction has not become a reliable development process. Comparisons with Mongolia and Chile are used as illustrative benchmarks, not causal controls. The article argues for a sequenced strategy: disclose and trace existing activity first, build regulatory and local capabilities second, and pursue large-scale projects and revenue stabilization only when oversight and project economics are credible.

Keywords: Afghanistan, Mineral-based Development, Extractive Industries, Resource Governance, Political Economy, Formalization

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1. Introduction

Afghanistan has long been described as a country of exceptional mineral potential. Geological work identifies copper, iron, coal, chromite, gold, gemstones, rare earth elements, and other industrial and critical minerals across the country (U.S. Geological Survey Afghanistan Mineral Assessment Team, 2011). Yet geological occurrence is not the same as an economically recoverable reserve, and an estimated value underground is not public revenue, employment, or welfare. Converting a deposit into development requires exploration, finance, infrastructure, regulatory capability, secure and predictable access, environmental and social safeguards, and institutions able to collect and distribute rents. Afghanistan's central problem is therefore not a shortage of geological promise. It is the failure to construct the chain of institutions and productive linkages through which extraction can generate durable public value.

That distinction has become more important since the Taliban returned to power in August 2021. The de facto authorities have promoted mining contracts and mineral exports as sources of revenue and economic recovery. At the same time, non-recognition, sanctions-related compliance risk, financial isolation, restrictions on civic space, and limited public information have narrowed the set of credible investors and weakened independent oversight. Recent scholarship consequently treats Afghanistan's critical minerals not only as a development opportunity but also as a source of new due-diligence, conflict, human-rights, and traceability risks (Chaudhuri & Roy, 2024; Deberdt et al., 2024; Kamprowski, 2024). The post-2021 period

has changed the actors and external environment, but it has not removed the institutional and infrastructural constraints that delayed major projects before 2021.

The macroeconomic evidence also counsels caution. The World Bank (2024) estimated that mining and quarrying output grew by 6.9% in 2023, while noting that a number of newly awarded small mining contracts had not yet begun production. This is evidence of activity, not proof of mineral-led development. In fiscal year 2024, recorded coal exports fell to US\$92 million, 64% below the previous year (World Bank, 2025a). Over the same broad period, real gross domestic product was estimated to grow by 2.5% in 2024, but the recovery remained fragile and insufficient to resolve persistent poverty and food insecurity (World Bank, 2025b). UNDP (2025) assessed 75% of the population as subsistence-insecure in 2024. These indicators use different concepts and cannot establish a causal relationship between mining and welfare. Together, however, they show why sectoral growth or contract announcements should not be equated with a functioning development model.

This article asks three questions. First, through which mechanisms have governance, political risk, infrastructure, and informality prevented mineral activity from generating broad economic linkages? Second, what can recent, verifiable evidence say about the sector's performance, and what remains unknowable? Third, which policy steps are feasible under present constraints, and in what order should they be attempted? The article's contribution is integrative rather than econometric. It updates the Afghanistan-focused extractive-sector literature with post-2021 peer-reviewed studies, replaces unsupported point estimates with defined quantitative proxies, and makes the review procedure and inference limits explicit.

The argument is that Afghanistan's mineral underperformance is best understood as a failure of transmission. Weak disclosure and discretionary allocation increase opportunities for rent capture. Political and regulatory uncertainty raises the cost of long-horizon investment and narrows participation to actors willing to bear unusually high risk. Infrastructure and capability gaps make many deposits commercially or environmentally difficult to develop. Informality then becomes both an adaptation to weak state capacity and a mechanism that perpetuates it: extraction can continue, but production, payments, working conditions, and environmental effects remain difficult to verify. The resulting system may generate transactions and short-term revenue without producing reliable public accounts, competitive suppliers, skilled employment, local trust, or countercyclical savings.

The remainder of the article proceeds as follows. Section 2 develops the institutional political-economy framework and reviews Afghanistan-specific research. Section 3 explains source selection, coding, case selection, and inference limits. Section 4 presents the empirical anchors that can be stated with reasonable confidence. Section 5 analyzes the mechanisms of underperformance. Section 6 uses Mongolia and Chile as structured contrasts. Section 7 sequences policy priorities, and Section 8 concludes.

2. Literature Review and Analytical Framework

2.1 Resource Abundance, Institutions, and Development

The resource-curse literature does not imply that minerals automatically reduce growth. Its more defensible claim is conditional: large, concentrated rents can alter incentives, macroeconomic management, and political competition, while outcomes depend on institutions, the type of resource, the stage of production, and the measurement of dependence (Badeeb et al., 2017; Ross, 2015; van der Ploeg, 2011). Resource abundance describes an asset base. Resource dependence describes an economic structure. A country can possess large

deposits without producing them, and it can produce minerals without creating broad domestic value. These distinctions are essential in Afghanistan, where geological potential is repeatedly presented as if it were already a national balance-sheet asset.

Institutional accounts focus on how rents are allocated and monitored. Mehlum et al. (2006) distinguish settings in which institutions reward productive activity from those in which they reward appropriation. Robinson et al. (2006) similarly show how resource rents can increase the political value of controlling allocation and thereby encourage inefficient distribution. Applied to mining, the relevant observables are not an abstract label such as “good governance,” but concrete practices: whether licenses are competitively awarded; contracts, beneficial owners, production, and payments are disclosed; regulators can enforce rules consistently; and communities can contest decisions and verify promised benefits.

The literature also emphasizes linkages. Extraction directly employs a limited workforce, particularly when projects are capital-intensive. Its development effect therefore depends on indirect channels: local procurement, transport and energy services, skills, fiscal transfers, and public investment. Reviews of local resource effects find heterogeneous outcomes and warn that national averages can conceal concentrated local costs or benefits (Cust & Poelhekke, 2015). An enclave mine may increase exports without deepening the domestic production structure. Conversely, demanding immediate downstream processing can destroy value when electricity, water, skills, logistics, and market scale do not support it. Linkage policy must therefore be sequenced and project-specific.

Finally, conflict and fragility alter the feasible set. Easily appropriable minerals can finance armed or patronage networks; insecurity raises operating and financing costs; and weak monitoring encourages informal production. Yet security is not binary. The end of one form of nationwide conflict can coexist with regulatory uncertainty, coercion, localized violence, sanctions exposure, and human-rights risk. For mineral investors and buyers, these conditions affect bankability and supply-chain due diligence even when physical access to some sites improves.

2.2 Afghanistan-Specific Evidence

Afghanistan-focused research predating 2021 consistently identified a mismatch between ambitious large-scale projects and limited institutional capacity. Sheraz (2014) argued for foresight and policy coordination rather than treating extraction as an automatic growth engine. Shroder (2015) documented the interaction of security, governance, geology, and infrastructure in slowing extractive-sector development. Lipow and Melese (2012) likewise framed the problem as one of institutional readiness. Mills (2020) went further, arguing that the risks of large-scale mining could exceed expected public benefits under prevailing governance conditions and that formalized small- and medium-scale activity deserved greater attention.

Site-specific evidence strengthens this concern. Global Witness (2016) documented how lapis-lazuli extraction in Badakhshan became entangled with armed financing and weak oversight. DeWitt et al. (2022) demonstrated that small-scale emerald mining in Panjshir could be mapped through remote sensing where administrative records were incomplete. Their study did not estimate national output or welfare, but it established two relevant points: informal or semi-formal activity can be spatially significant, and satellite methods can supplement weak reporting systems.

Recent peer-reviewed work adds a post-2021 perspective. Deberdt et al. (2024) analyze Afghanistan's transition minerals as a sourcing-governance problem, emphasizing traceability, conflict, human-rights, and reputational risks. Chaudhuri and Roy (2024) identify interlocking

institutional, infrastructural, financial, and social constraints on revival of the sector. Kamprowski (2024) shows that geopolitical interest in rare earth elements does not resolve the absence of infrastructure and processing capability. Tantashev and Eshchanov (2024) connect critical-mineral ambitions to energy systems, regional cooperation, and environmental governance. Nero (2025) synthesizes recurring domestic priorities: legal clarity, technical capacity, disclosure, environmental and social management, and local employment. These studies differ in method and emphasis, but converge on the proposition that commercial and developmental viability depends on institutions outside the mine gate.

This convergence should not be overstated. Much of the evidence remains review-based; reserve and investment figures are often repeated across sources without independent verification; and post-2021 administrative data are sparse. The article therefore treats the literature as evidence about mechanisms and constraints, not as a source of precise national estimates for informal output, employment, or the value of reserves.

2.3 Analytical Constructs and Expected Relationships

The revised framework uses five constructs. Governance and allocation concerns the transparency and enforceability of rights, payments, and decisions. Security and political/regulatory risk concerns interruption, coercion, legal uncertainty, sanctions-related compliance, and the stability of long-horizon commitments. Infrastructure and capability covers energy, transport, geological information, cadastral administration, environmental assessment, and technical skills. Formalization and linkages covers licensed production, declared trade, revenue collection, local procurement, and economically viable processing. Distribution and welfare covers employment quality, community participation, local revenue sharing, basic-needs outcomes, and environmental burdens.

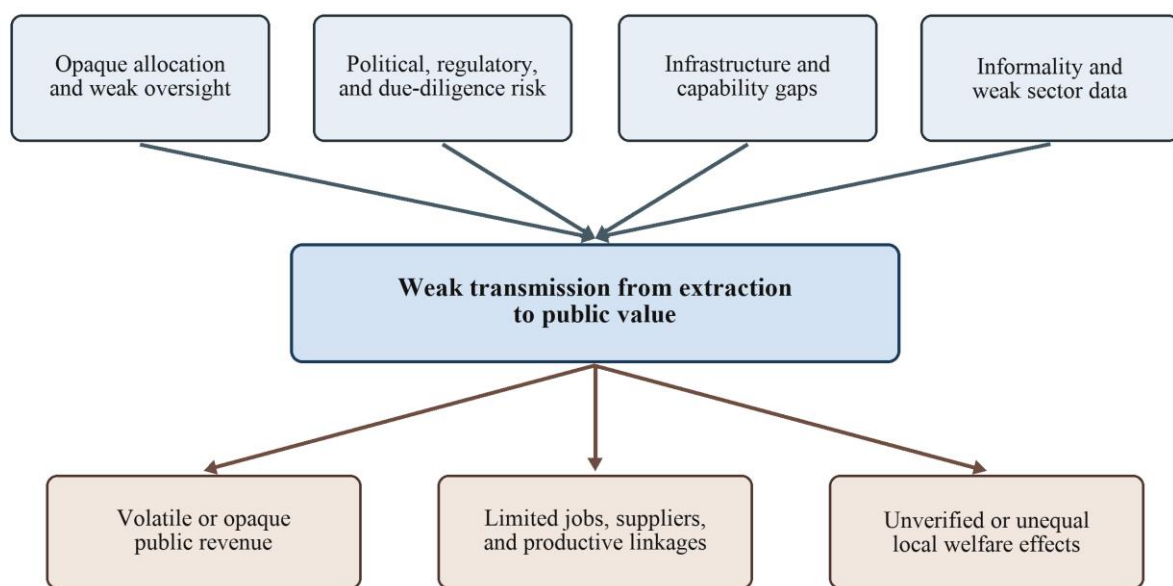
Table 1. Construct Operationalization and Decision Rules

Construct	Observable evidence / proxy	Use in the analysis	Interpretive limit
Governance and allocation	Publication of licenses, contracts, beneficial owners, production, payments, award procedures, and enforcement actions	Identifies whether rights and rents can be independently traced and contested	Disclosure status is not proof of corruption or productivity
Security and political / regulatory risk	Conflict exposure, legal continuity, sanctions and banking constraints, interruption, and buyer due-diligence requirements	Assesses conditions shaping investment horizon, financing, and market access	No project-specific risk premium is estimated
Infrastructure and capability	Power, transport, water, cadastral and geological data, fiscal audit, inspection, and environmental assessment	Tests whether extraction and monitoring are technically and administratively feasible	National indicators can conceal mine-specific conditions
Formalization and linkages	Licensed production, declared exports, revenue collection, procurement, skills, services, and viable processing	Examines whether extraction enters formal accounts and the domestic production structure	Recorded trade omits informal output and does not equal production
Distribution and welfare	Employment quality, local transfers, participation, grievances, environmental	Examines whether benefits and costs are visible beyond the license holder	Aggregate welfare data cannot identify a mining effect

Construct	Observable evidence / proxy	Use in the analysis	Interpretive limit
	burdens, and basic-needs indicators		

Note. The constructs organize qualitative evidence; they are not combined into a score. A claim is retained only when a traceable source defines the observation and its limits.

These constructs are connected in a reinforcing chain rather than a single-variable model. Weak governance reduces confidence in rights and payments. Higher risk discourages patient capital and increases the attractiveness of short-horizon extraction. Poor infrastructure and capability make formal compliance expensive, while informality reduces the information and revenue available to improve capacity. Limited linkages and opaque distribution then weaken public legitimacy, making enforcement more difficult. Figure 1 summarizes this mechanism. It is a conceptual map, not a statistical path model.



The arrows denote proposed mechanisms, not estimated causal coefficients.

Figure 1. Proposed Mechanism Linking Mineral-Sector Constraints to Weak Development Transmission

Note. The diagram organizes the qualitative argument; it is not a statistical path model.

3. Methodology and Data

3.1 Review Design and Source Selection

The study uses a structured qualitative evidence review. This method was adopted because comparable mine-level production, investment, employment, revenue, and welfare data are not available for Afghanistan, especially after 2021. The revision updated the search through July 2026 using publisher pages, DOI records, journal repositories, and the websites of the World Bank, UNDP, USGS, EITI, and the Natural Resource Governance Institute. Search combinations paired “Afghanistan” with “mining,” “minerals,” “extractive industries,” “critical minerals,” or “artisanal mining,” and then with “governance,” “security,”

“infrastructure,” “formalization,” “employment,” “revenue,” or “development.” Backward citation checks were used for foundational Afghanistan studies and the resource-curse framework.

Inclusion required one of three characteristics: an English-language peer-reviewed study focused on Afghanistan's mineral or extractive sector; an authoritative institutional source defining a quantitative indicator used in the analysis; or a foundational peer-reviewed work necessary to specify the proposed mechanism. Preference was given to research published in the past ten years, while older work was retained only when it established the geological baseline, a central theory, or a pre-2021 comparison. Sources were excluded when the citation could not be traced, the claim depended on an undated media report, a promotional estimate was presented as verified commercial value, or an exact national statistic lacked a reproducible definition.

The process produced a deliberately bounded evidence base rather than a claim of exhaustive systematic-review coverage. The aim was to test whether the article's principal claims survived source verification and to expose disagreement and missing data. This procedure led to the removal of unsupported estimates for mining's share of gross domestic product and employment, security-cost premia, capital flight, inequality attributed to mining, and invented trend series.

3.2 Coding and Construct Operationalization

Each retained source was entered into an evidence matrix and coded against one or more of the five constructs in Table 1. Coding meant assigning evidence to a defined question, not generating numerical scores. For governance, the review asked whether the source documented or measured disclosure, allocation, oversight, or enforcement. For risk, it recorded evidence of conflict, legal instability, sanctions exposure, or supply-chain due diligence. For infrastructure and capability, it recorded constraints in power, transport, data, skills, or environmental administration. For formalization and linkages, it recorded licensing, declared exports, revenue, procurement, and processing. For distribution and welfare, it recorded local benefits, labor conditions, participation, environmental effects, or defined socioeconomic indicators.

A claim was retained when it was directly supported by a traceable source and interpreted within that source's measurement limits. Where possible, institutional figures were triangulated with peer-reviewed mechanism evidence. Triangulation does not make unlike indicators interchangeable. For example, sectoral output growth, coal exports, and subsistence insecurity describe different domains; they are presented side by side as a diagnostic profile, not combined into an index or regression.

3.3 Comparative Case Selection

Mongolia and Chile are used as purposive, structured contrasts. Mongolia is a closer structural benchmark because it is landlocked, mineral-dependent, exposed to infrastructure and commodity-cycle constraints, and continues to face implementation and local-benefit challenges. Chile is an upper-bound institutional benchmark because it has longer experience with copper taxation, fiscal rules, technical administration, and transparent macroeconomic management. Neither country is treated as a “most-similar” causal control. Differences in income, state capacity, history, market access, and political institutions are too large for that claim. The comparison instead asks a limited question: which governance functions exist in more developed mineral systems but are absent or fragile in Afghanistan?

3.4 Inference Limits

The study does not estimate the causal effect of mineral extraction on Afghan growth, employment, poverty, or conflict. It makes a descriptive and process-congruence argument: observed sector conditions are consistent with mechanisms identified in the resource-governance literature and Afghanistan-specific studies. Post-2021 data are especially limited by weak disclosure, informal activity, changing administrative definitions, and restricted independent access. Figures published by international organizations may rely on modeled estimates or de facto-authority data that cannot be fully audited.

Governance indicators and institutional statuses are proxies, not direct measures of mine productivity. Export data omit unrecorded trade and do not equal production. Output growth rates do not reveal the sector's level, fiscal contribution, or distribution. Welfare indicators cannot identify mining's contribution without household- or locality-level designs. These limits narrow the conclusion: the article can identify a credible set of binding constraints and feasible institutional priorities, but it cannot rank their marginal effects or forecast mineral revenue.

4. Afghanistan's Mineral Economy: Empirical Anchors

4.1 The Resource Base and the Production Gap

The geological case for mineral potential is strong, but the economic case must be established deposit by deposit. The USGS-led assessment identified 24 areas of interest for nonfuel mineral investment and assembled data on copper, iron, rare earth elements, gold, gemstones, and industrial minerals (U.S. Geological Survey Afghanistan Mineral Assessment Team, 2011). That work improved knowledge of occurrence and prospectivity. It did not convert inferred resources into proven reserves, complete feasibility studies, or guarantee commercially viable extraction. Public discussion often collapses these stages and attaches a single dollar value to minerals in the ground. The result is a misleading comparison between hypothetical gross metal value and current national income.

Commercial development requires a sequence of costly tests: drilling and resource classification; metallurgical recovery; water and power studies; transport and market analysis; environmental and social assessment; financing; construction; and sustained operation. Discount rates are particularly important because large mines require high up-front capital and returns over decades. In Afghanistan, risk, infrastructure, and governance are therefore part of the ore body's economics rather than external details. A deposit can be geologically substantial and still be non-bankable under current conditions.

The sector also contains very different activities. A large copper or iron project has financing, infrastructure, and regulatory needs unlike those of coal, construction materials, or artisanal gemstones. Aggregating them as “mining” can conceal a shift toward short-cycle extraction while major projects remain delayed. Small-scale activity may provide livelihoods and near-term revenue, but informality can also hide production, weaken safety and environmental controls, and facilitate coercive taxation or smuggling. The relevant development question is not simply whether extraction occurs, but whether the activity is recorded, regulated, linked to local firms and workers, and converted into accountable public value.

4.2 Post-2021 Indicators and What They Mean

Table 2 reports five empirical anchors selected because their definitions and sources are traceable. The first two concern activity and trade. Mining and quarrying output growth of 6.9% in 2023 indicates expansion from the previous year's level, not a 6.9% share of GDP. The

decline in coal exports to US\$92 million in FY2024 shows volatility in one visible mineral trade category, not the value of all extraction. The third and fourth indicators provide macroeconomic and welfare context: positive GDP growth coexisted with severe subsistence insecurity. The fifth records a governance change: Afghanistan's EITI delisting after the dissolution of the multi-stakeholder process and failure to report.

Table 2. Selected Empirical Anchors for Afghanistan's Post-2021 Mineral Economy

Indicator	Observation	What it supports	What it does not show
Mining and quarrying output	+6.9% in 2023 (World Bank, 2024)	Sectoral activity expanded from the previous year's level	Sector share of GDP, revenue, employment, or welfare impact
Recorded coal exports	US\$92 million in FY2024; 64% lower year on year (World Bank, 2025a)	A visible mineral export category was volatile	Total extraction, smuggling, profitability, or fiscal receipts
Real GDP	+2.5% in 2024 (World Bank, 2025b)	The economy recorded a second year of modest recovery	Mining's causal contribution to growth
Subsistence insecurity	75% of the population in 2024 (UNDP, 2025)	Severe welfare deprivation persisted during the recovery	A causal effect of mining on household welfare
Extractive-sector transparency	Afghanistan delisted from EITI effective June 19, 2024 (EITI, 2024)	Multi-stakeholder reporting and verification were no longer operating	Misconduct in any specific contract or level of production

Note. Indicators describe different domains and are not aggregated. FY = fiscal year; EITI = Extractive Industries Transparency Initiative.

The profile does not support the claim that mining caused deprivation, nor does it show that the sector made no contribution. It supports a narrower conclusion: available evidence documents extractive activity, but not a stable, transparent transmission from extraction to broad welfare. A credible claim of mineral-led development would require consistent project-level production and payment data, audited fiscal receipts, employment and procurement records, and locality-level social and environmental indicators. Those data are not publicly available in a form that permits independent reconciliation.

Contract announcements require the same caution. A signed contract may represent political intent, an exploration right, or a preliminary commitment rather than financing, construction, or production. The World Bank's observation that several small contracts had not begun production illustrates the implementation gap (World Bank, 2024). Large projects face an even longer path. The appropriate monitoring unit is therefore a project milestone—license disclosure, beneficial-owner verification, exploration expenditure, feasibility study, environmental approval, financial close, construction, production, and payment—not the headline value announced at signature.

5. Mechanisms of Underperformance

5.1 Governance, Allocation, and Rent Capture

Mining creates unusually concentrated and administratively allocated rents. The state determines access to subsoil rights, approves production and exports, assesses royalties and taxes, and often negotiates infrastructure and community obligations. When these decisions are opaque, the value of political access rises. The resource-curse mechanism in Afghanistan is

therefore less a mechanical effect of geology than a problem of discretionary allocation under weak accountability (Mehlum et al., 2006; Robinson et al., 2006).

The observable governance deficit has several layers. First, a complete, accessible registry linking each license to its beneficial owners, coordinates, commodity, award procedure, work program, production, and payment status is not available for independent reconciliation. Second, contract announcements commonly emphasize gross investment values without publishing financial assumptions, implementation conditions, or risk allocation. Third, fragmented public information makes it difficult to compare company declarations, customs records, ministry receipts, and treasury accounts. Fourth, restricted civic space reduces the capacity of journalists, communities, and professional associations to question awards and monitor local effects.

Afghanistan's delisting from EITI in June 2024 is a concrete indicator of this institutional loss. The EITI Board cited the deterioration of civic space, dissolution of the multi-stakeholder group, and inability to publish reports (Extractive Industries Transparency Initiative, 2024). Delisting does not prove corruption in a particular contract. It does mean that a recognized mechanism for multi-stakeholder disclosure and reconciliation is no longer operating. In such an environment, even correctly collected revenue is harder to distinguish from incomplete reporting, and reputable buyers face greater due-diligence costs.

The language of “tribal capitalism” used in some political commentary is too imprecise for this analysis. Ethnic or tribal identity does not itself explain sector performance. The operational concern is patronage-mediated allocation: whether access, enforcement, and benefit distribution depend on personal or political relationships rather than general rules. This distinction matters because it directs reform toward disclosure, contestability, and enforcement instead of attributing institutional outcomes to identity categories.

5.2 Security, Political Status, and Regulatory Risk

Before 2021, armed conflict directly threatened sites, transport routes, personnel, and long-term projects. The change in government reduced some forms of battlefield risk, but it introduced or intensified others. The de facto authorities lack broad international recognition; financial transactions face sanctions screening and de-risking by banks; legal continuity is uncertain; and restrictions on rights and civic participation create supply-chain and reputational exposure. Deberdt et al. (2024) show why critical-mineral sourcing from Afghanistan cannot be evaluated only through physical security or commodity demand.

These conditions affect both the quantity and quality of investment. Firms with access to low-cost capital, public shareholders, or downstream customers must demonstrate ownership, origin, labor, environmental, and payment integrity. When documentation is weak, compliant capital may stay away even if a deposit is attractive. Investors willing to proceed may demand higher returns, shorter payback periods, guarantees, exclusive terms, or control over infrastructure. This selection effect can favor opaque, short-horizon arrangements and reinforce the governance problem.

Regulatory predictability is equally important. A mining right has value only if the boundaries, duration, fiscal terms, dispute procedures, and environmental obligations are stable and enforceable. A policy of rapidly awarding many contracts may create nominal activity while overwhelming cadastral and inspection capacity. Overlapping rights, unclear milestones, or discretionary renegotiation then increase conflict between license holders and communities. The risk is not merely fewer projects; it is a portfolio skewed toward extraction that can start quickly and externalize costs.

5.3 Infrastructure and State Capability

Mining is an infrastructure-intensive production system. Bulk commodities require roads or rail, border capacity, and reliable power. Processing may require large, continuous electricity supply and water, specialized inputs, waste facilities, and technical monitoring. Afghanistan's landlocked geography and mountainous terrain magnify these costs. Kamprowski (2024) and Tantashev and Eshchanov (2024) accordingly identify infrastructure as a binding condition for critical-mineral ambitions, not an investment that can automatically be financed after extraction begins.

This creates a coordination problem. A mine may be unable to finance shared infrastructure alone, while the state lacks fiscal space to build assets before a bankable project exists. Tying national infrastructure plans to promotional estimates can leave costly stranded assets. The practical response is staged investment based on verified demand: low-cost access and monitoring for existing small operations; shared power and transport studies for credible clusters; and major infrastructure only after feasibility, safeguards, financing, and access rules are clear.

Administrative capability is a form of infrastructure as well. A modern cadastre must record rights spatially and prevent overlap. Geological agencies must separate public pre-competitive data from company reporting. Fiscal authorities must audit volumes, grades, prices, costs, related-party transactions, and customs declarations. Environmental regulators need baseline data and the authority to require mitigation, closure plans, and financial assurance. Nero (2025) identifies shortages across these functions. Without them, a stronger law on paper may produce little change in practice.

The Panjshir study by DeWitt et al. (2022) suggests one feasible capability investment: combine licensing records with remote sensing. Satellite monitoring cannot verify payments, labor conditions, ownership, or legality by itself. It can identify surface disturbance, expansion, and possible activity in remote areas, allowing scarce inspectors to target field checks. This is especially valuable where conventional reporting is incomplete.

5.4 Informality, Linkages, and Distribution

Informality is often described only as lost revenue, but it is also a production and governance system. Small operators may avoid licensing because procedures are expensive, distant, uncertain, or designed for large firms. Intermediaries may provide credit, equipment, protection, and market access in exchange for control over price and output. A punitive approach can drive the activity further underground without improving safety or payments. Mills (2020) therefore argues that Afghanistan should take small- and medium-scale extraction seriously rather than treating a future megaproject as the sole development path.

Formalization should reduce the cost of compliance while raising the visibility of production. A tiered license can define small areas, short processing times, basic safety and environmental duties, and modest payments. Digital production declarations and numbered transport documents can connect mine, trader, customs post, and payment. Buyer due diligence can then reward traceable material. This sequence is more realistic than requiring artisanal operators to satisfy rules designed for a multinational mine from the outset.

Formalization alone does not guarantee linkages. Direct mine employment may be limited, and specialized processing may be uneconomic without reliable power, water, scale, and markets. The first linkage opportunities are often less glamorous: transport, maintenance, catering, construction materials, protective equipment, surveying, accounting, and basic repair. Procurement disclosure and supplier-development programs can show whether these

opportunities reach Afghan firms. Training should follow verified employer demand, not broad promises about future jobs.

Distribution determines legitimacy. Communities near extraction bear traffic, land, water, safety, and environmental risks before national benefits become visible. If local transfers are discretionary or promises are not published, conflict and mistrust are predictable. A rules-based local share of verified royalties, accompanied by published transfers, community plans, and simple grievance procedures, is more credible than ad hoc company gifts. Yet local allocation must complement, not replace, national budgeting; otherwise, producing districts may receive opaque benefits while broader citizens cannot see how public mineral wealth is used.

The welfare evidence underscores this point. UNDP's subsistence-insecurity measure cannot identify a mining effect, but a 75% rate in 2024 establishes the demanding context in which policy claims are judged (UNDP, 2025). Mineral strategy should therefore be evaluated against modest, measurable transmission indicators—declared payments, safe formal jobs, local procurement, reliable services, and mitigated environmental harm—rather than the gross value of deposits.

6. Comparative Interpretation: Mongolia and Chile

Mongolia is useful because it shows both the gains and limits of institution building in a landlocked mineral economy. Its mining sector scored 70 out of 100 in the 2021 Resource Governance Index, with relatively strong open-data and revenue-management components, but weaknesses remained in state-owned enterprise disclosure, contract and beneficial-ownership information, implementation, and local impacts (Natural Resource Governance Institute, 2021). The lesson is not that Afghanistan can copy a score or law. It is that digital disclosure, fiscal rules, and formal institutions can improve while enforcement and local accountability remain unfinished. Afghanistan should therefore treat publication and implementation as separate tests.

Chile is a more distant benchmark. Its relevance lies in institutional functions accumulated over decades: technical capacity in a mature copper industry, rule-based macro-fiscal management, and mechanisms that separate annual spending from current commodity prices. Chile does not demonstrate that mining automatically produces equality or resolves environmental and territorial conflict. It demonstrates that revenue stabilization and technical administration require durable public institutions before a boom, not after it.

The contrasts yield three disciplined inferences. First, Afghanistan should build basic disclosure, cadastral, fiscal, and environmental functions before relying on large rent flows. Second, a fiscal rule or fund is useful only when deposits, withdrawals, investment mandates, and audits are transparent; creating a fund without those controls can add another site of discretion. Third, local impact governance remains difficult even in stronger systems, so community participation and environmental baselines cannot be postponed as secondary concerns.

7. Policy Priorities and Sequencing

Policy should reflect current constraints rather than assume rapid recognition, unrestricted finance, or immediate megaproject development. Table 3 sequences actions by dependency and administrative burden. The time ranges are indicative; progression should depend on observable milestones rather than the calendar alone.

Table 3. Sequenced Policy Priorities Under Existing Constraints

Phase	Priority actions	Progress indicators	Main safeguard
Immediate (0–18 months)	Publish a project registry and material contracts; verify beneficial owners; create low-cost small-scale licenses and traceability; combine records with satellite screening and risk-based inspections; publish project payments and formula-based local transfers	Share of active rights with complete records; production and payment reconciliation; licenses issued through the simplified track; inspection and grievance outcomes; local transfers published	Do not treat announcements as investment; prioritize dangerous, protected, coercive, and repeatedly undeclared activity rather than indiscriminate closure
Medium term (18 months–5 years)	Strengthen cadastre, geological data, fiscal and customs audit, and environmental assessment; use model terms with disclosed deviations; select shared infrastructure through bankable studies; develop local suppliers and demand-led skills	Overlapping rights resolved; audited volumes and payments; baseline and closure plans; infrastructure access rules; procurement and employment results by project	Test power, water, logistics, waste, and market economics before requiring processing; publish exceptions and related-party arrangements
Long term (5+ years, conditional)	Use competitive, milestone-based awards for large projects; require community agreements and closure assurance; adopt a transparent fiscal rule or stabilization mechanism after material audited revenue exists; seek EITI re-engagement when credible participation is possible	Feasibility and financing milestones; disclosed contracts and audits; rule-based deposits and withdrawals; independent reconciliation and civic participation	Scale only after project economics, rights, infrastructure, oversight, and distribution arrangements can be independently verified

Note. Time ranges are indicative. Advancement should depend on verified milestones, not elapsed time alone.

7.1 Immediate Priorities: Make Existing Activity Visible

The first priority is a public project registry. For every license or contract, it should disclose the holder and beneficial owners, geographic coordinates, commodity, award method, key fiscal terms, work obligations, current milestone, production declarations, and payments. Existing paper records can be digitized incrementally. Publication should use downloadable data as well as scanned documents so that contracts, customs, and receipts can be reconciled.

Second, authorities should introduce a low-cost small-scale licensing and traceability track. Requirements should begin with identity, location, commodity, basic safety, no-go environmental zones, production declaration, and a simple payment. Traders and exporters should record source licenses and quantities. Enforcement should initially prioritize dangerous sites, protected areas, coercive control, and repeated non-declaration, while providing a practical route into compliance.

Third, monitoring should combine administrative records, satellite screening, and risk-based inspection. This targets scarce capacity and creates an audit trail without claiming that remote sensing can replace field verification. A small set of public dashboards—active sites, reported production, payments, inspections, accidents, and grievances—would provide more accountability than large unverifiable investment totals.

Fourth, project-level revenue and a formula-based local share should be published together. Local transfers should flow through recorded budgets with permitted uses, procurement

disclosure, and community reporting. This makes the benefit-sharing promise testable and reduces dependence on discretionary company projects.

7.2 Medium-Term Priorities: Build Capability and Linkages

The second phase should strengthen the cadastre, geological data management, fiscal audit, customs valuation, and environmental and social assessment. Training should be tied to operational tasks and retained staff. Model contracts and standard fiscal terms can reduce negotiation burdens, but deviations must be disclosed and justified. Independent technical review is especially important for related-party pricing, cost recovery, and infrastructure commitments.

Infrastructure should be selected through bankable project and corridor studies. Public participation is justified where assets have clear shared use, access rules, safeguards, and financing. Processing mandates should pass explicit power, water, cost, technology, waste, and market tests. Where domestic processing is uneconomic, policy should prioritize realistic supplier and service linkages instead of forcing a project that consumes subsidies or scarce electricity.

Supplier development should begin with a procurement baseline: what operating mines buy, from whom, and why local firms fail to qualify. Programs can then target standards, finance, equipment maintenance, logistics, surveying, and occupational safety. Employment targets should distinguish temporary construction jobs, permanent mine jobs, indirect suppliers, and gender barriers. Published results are necessary to prevent “local content” from becoming another discretionary allocation mechanism.

7.3 Long-Term Priorities: Scale Only When Governance is Credible

Large-scale copper, iron, or critical-mineral projects should advance through competitive, milestone-based procedures once resource definition, infrastructure, safeguards, financing, and oversight are credible. Contract terms should address closure liabilities, water and energy use, transfer pricing, public infrastructure access, community agreements, and publication. Where competition is impossible, the government should publish the reason, independent valuation, and negotiated deviations.

A stabilization or savings mechanism becomes relevant only after material, sustained, and auditable revenue exists. Its rule should specify deposits, withdrawals, investment, parliamentary or equivalent approval, external audit, and public reporting. EITI re-engagement should be pursued if conditions permit credible multi-stakeholder participation and verification. The immediate objective is not the label itself but restoration of the disclosure, reconciliation, and civic-oversight functions that delisting signaled had been lost.

This sequencing is intentionally conservative. Delaying an opaque megaproject is not equivalent to abandoning mineral development. It protects option value while institutions and data improve. Conversely, waiting for ideal governance before addressing existing small-scale activity would leave current extraction outside the rules. The feasible strategy is to formalize what already occurs, build verifiable capability, and scale only when each additional commitment can be monitored.

8. Conclusion

Afghanistan's mineral endowment has failed to generate broad-based development because the institutional and productive chain between geology and welfare remains incomplete. Verified

evidence shows extractive activity and periods of sectoral growth, but it also shows volatile recorded coal exports, delayed implementation, loss of an international transparency mechanism, and persistent deprivation. These observations do not establish that mining caused Afghanistan's economic crisis. They establish that contract announcements and geological valuations are inadequate measures of development.

The structured review identifies five mutually reinforcing constraints: opaque allocation, political and regulatory risk, infrastructure and capability gaps, informality and weak linkages, and unverified distribution. Recent Afghanistan-focused scholarship reinforces rather than overturns this diagnosis. Post-2021 demand for transition minerals may increase strategic interest, but it also raises the standard for traceability, rights, environmental management, and buyer due diligence.

The policy implication is sequence. Existing extraction should first be made visible through license, ownership, production, payment, and local-transfer disclosure; small operators need a practical route to legality; and monitoring should combine records with targeted remote sensing and inspection. Regulatory, fiscal, environmental, and supplier capabilities should follow. Large projects, processing mandates, and revenue funds should be pursued only when their economics and oversight are credible.

This conclusion is deliberately bounded. The available data cannot quantify the causal effect of mining on Afghan GDP, employment, poverty, or conflict, and the analysis cannot forecast revenue from unproven projects. Future research should prioritize project-level production and payment reconciliation, mine-area household and labor surveys, satellite-based activity panels linked to field verification, and comparative evaluation of formalization schemes. Until such evidence exists, the most defensible mineral strategy is not to promise a rapid resource-led transformation, but to construct the institutions through which any future extraction can be tested against public value.

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