

Governance Challenges in KP's Mineral Sector: A Policy Review

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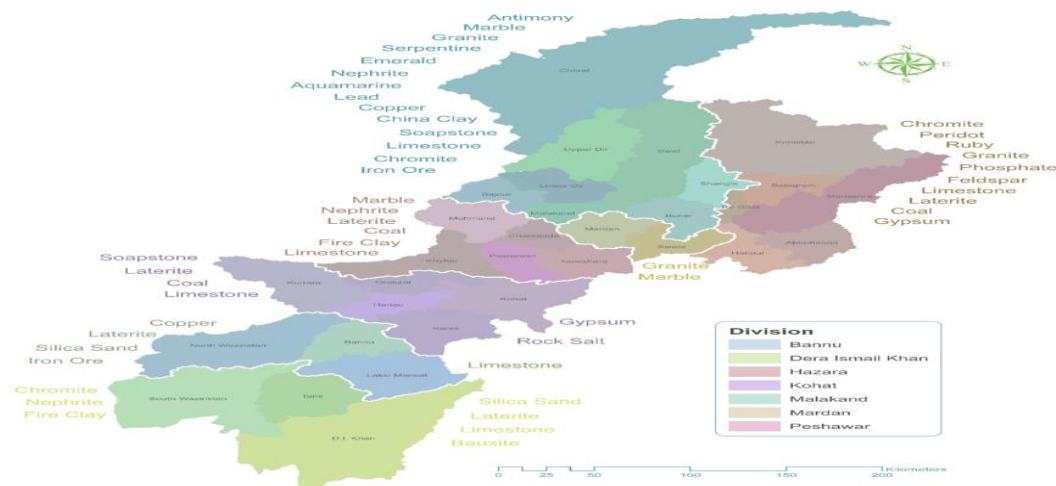
Abstract

Following the Eighteenth Constitutional Amendment, Khyber Pakhtunkhwa (KP) enjoys exclusive constitutional authority over its mineral resources. Despite this autonomy and significant geological potential, the province's mineral sector continues to underperform due to governance, regulatory, and implementation failures rather than constitutional or legal constraints. This work critically evaluates the existing KP Mines and Minerals Act, 2017, administrative practice, and the proposed KP Mines and Minerals Bill, 2025, and presents a coherent reform framework grounded in rule-based governance, digitalization, environmental safeguards, and revenue optimization. The analysis finds that the current licensing regime is characterized by excessive administrative discretion, paper-based and fragmented processes, weak enforcement, and limited transparency. Licensing decisions lack standardized timelines, allocation pathways between administrative grants and auctions are unclear, environmental approvals often follow licensing rather than precede it, and royalty collection suffers from under-reporting and leakage. Digitization efforts to date remain partial and lack legal recognition, while institutional overlap between mining, environmental, and safety regulators undermines accountability. Community participation, benefit sharing, and clarity in merged districts remain inadequately codified, and dispute resolution mechanisms suffer from jurisdictional ambiguity. The proposed Mines and Minerals Bill, 2025 represents an important attempt at modernization through digitization, auction committees, enhanced environmental language, and revised institutional arrangements. However, the Bill largely articulates intent rather than enforceable obligations. To address these gaps, the work advances a focused reform agenda anchored in a Pareto approach: a limited set of high-impact interventions can deliver most desired outcomes. Central among these is the establishment of a legally recognized Integrated Digital Licensing and Cadastre System (IDLCS) and One-Window mechanism, declared as the sole official register for all mineral titles, approvals, compliance records, and revenues. This is complemented by codified allocation pathways distinguishing auction-based grants for high-value minerals from administrative licensing for small-scale operations; statutory licensing timelines with deemed approval provisions; integration of environmental clearance as a mandatory pre-condition; institutionalization and digitalization of royalty and production monitoring; and strengthened dispute resolution through specialized magistrates and a streamlined appellate framework.

Introduction:

The province of Khyber-Pakhtunkhwa of Pakistan is located at the continental-continental collisional boundary that had resulted in an endless treat of mineral resources. The province is blessed with almost all varieties of mineral resources that include but are not restricted to exploration and exploitation of precious base metals, metallic and non-metallic minerals,

dimension stones, precious and semi-precious gemstones and varieties of minerals having potential value and worth in the construction industry. (MMDD, 2025).



Source: MMDD KP

The KP Department of Mines and Minerals is responsible for managing, regulating and promotion of mining activities, including awarding and regulating Mining Licensing regime in KP. It has an overarching legal and institutional set up which is governed by several laws, rules, regulations, byelaws and policies dealing with mining operations, safety precautions, auction regime, revenue streams, corporate social responsibility etc. The Mines and Mineral Department is headed by the Secretary. The Department comprises of a Directorate General of Mines and Minerals, an Inspectorate of Mines Safety and a Commissionerate of Mines labor. There is a Mineral Testing Laboratory for content analysis of minerals and research on the minerals. The Directorate General of Mines is responsible for the grant of mineral titles and revenue collection. The Inspectorate of Mines Safety is responsible for safety inspections, enforcement of mines safety laws, training of mines managers/workers and mines rescue operations. The Commissionerate of Mines labor is responsible for the collection of mines duties such as excise/cess, and for the provision of welfare facilities to the mine workers.

The Mining Cadaster Portal provides an e-Government platform for all stakeholders in the mineral sector to engage directly with the Department of Mines and Minerals. The aim of the Portal is to ensure international standards of transparency with an emphasis on improving the ease of doing business in Khyber Pakhtunkhwa.}

Despite the abundant mineral wealth Khyber-Pakhtunkhwa has not effectively utilized mineral resources for sustainable economic growth. Development of the mineral sector can play a crucial role in the economic stability of the province of the KP.

Statement of the Problem

The 18th Constitutional Amendment (2010) granted Khyber Pakhtunkhwa (KP) complete autonomy over its mineral sector, raising expectations for an autonomous and sustainable Mineral Sector Governance. However more than a decade later, this promise remains largely unrealized. Therefore, this research analyzes, as to why KP's post-devolution legal framework failed to improve Mineral Sector productivity and identify the practical barriers undermining the benefits of provincial autonomy.

Scope of the Study

This research examines the pre- and post-18th Constitutional Amendment governance of the mineral sector in Khyber Pakhtunkhwa (KP), focusing on why provincial autonomy has not

translated into effective outcomes. It analyzes the constitutional evolution, licensing framework, and inter-governmental relations, including federal–provincial coordination and dispute-resolution mechanisms. The study assesses Health, Safety, and Environmental (HSE) governance, fiscal and revenue-sharing arrangements, and trade, standards, and export promotion, highlighting how gaps in Legal Framework perpetuate informality, environmental harm, and has lost economic value. The scope is limited to legal and regulatory analysis, excluding geological or project-specific evaluations.

Research Methodology

The study has been conducted via mixed approach. Primary Data was collected by conducting interviews with the following officers: (Questionnaire annexed)

- i. Secretary Mines and Mineral: Mr. Amir Lateef,
- ii. DG mines and Mineral: Muhammad Asif
- iii. Chief Commissioner Mines: Engineer Muhammad Tahir
- iv. Ex DG/Secretary Mines and Mineral Department: Mr. Hameed Ullah Shah Bukhari

The study also utilizes a Qualitative Policy Analysis approach. Data was collected via a comprehensive review of secondary sources, including academic Constitution of Pakistan 1973, Federal and Provincial Acts, relevant laws and rules, research papers, publications, press releases, and articles published by reputable think tanks. For analysis, the study employs PESTLE Analysis, GAP analysis, Fishbone analysis, EETH analysis, to map the Impacts influencing KP policy space.

Constitutional and Legal Framework regulating mineral Sector in KP:

Statutory and Constitutional mapping of the Rules and Laws governing Licensing regime of KP mineral sector

Minerals in the Canons of the Constitutions, 1956, 1962, 1973 and Post 18th Amendment

Historical analysis of constitutional development and treatment of minerals reveals that 1956 constitution placed nuclear energy and mineral resources necessary for its production in Federal List, Iron, Steel, Coal and mineral products except mineral oil and natural gas in the Concurrent list and regulation of mines and mineral development in Provincial list. 1962 constitution does not explicitly draw any line regarding minerals as to be Federal or Provincial subject but conveniently places the enjoyment of property by Federal or Provincial government depending on its usage and relevance to the domain of respective government. It on other hand provides preference on past precedence but does not provide future roadmap.

Lastly, 1973 constitution except nuclear energy provides exclusive domain of province in the light of Articles 161 (1&2) ,and 172 (1)and (2) exclusively provide provincial domain but addition of clause 3 in Article 172 in 18th amendment, halves the ownership of mineral oil and natural gas between Federal and Provincial governments for existing commitments and obligations without any timeline while inclusion Minerals in the mandate of CCI further complicates the matter.

Mineral Titles Regime (Mining Concession License):

In KP, Mineral Titles, also called as mineral concession licenses, are broadly divided in two categories, LSM and SSM titles, based on the coverage area. (KP Mines and Mineral Act 2017, Section 9 and schedule-1)

- i. Large Scale Mineral Title
 - a. Reconnaissance License
 - b. Exploration License
 - c. Mineral Deposit Retention License

- d. Mining Lease
- ii. Small Scale Mineral Title
 - a. Prospecting License
 - b. Mining Lease
 - c. Minor Minerals

Pre-18th Amendment Mineral Licensing Regime:

Before the 18th Amendment, the KP Mineral sector was regulated by the Federal Government of Pakistan under the Regulations of Mines, Oilfields and Mineral Development (Government Control) Act, 1948. This Act also empowered the provincial governments to make policies on the following.

Applications regarding grant/renewal of EL/PL/ML and prescribing fees

Responsibility to make such conditions in which all the above-mentioned processes can be executed

Mines and Minerals Policy to determine rates of application fee, royalties, licenses, leases, grants, and rents

Refine ores/mineral oils and control their production, storage, and distribution

Fix selling and buying prices of minerals and mineral oils

Pass any legislative rule that is subsidiary to above mentioned rules

Under this Act, KP government framed Mining Concession rules 2005 in-line with the above subject Act.

NWFP / KP Mining Concession Rules, 2005

(Adapted from Federal Mining Concession Rules, 2002). This was the most important operational instrument before 2017 and covered the following.

Grant of: (Prospecting licenses, Mining leases)

Lease terms and renewals

Royalties and dead rent

Transfers and sub-leases

Misc. Mining Rules Pre-18th Amendment Scenario	
Safety and Technical Rules (Pre-2017)	Safety and Technical aspects of Mines
Mines Act, 1923 (Federal Law)-	Mine Safety, Labor Welfare and work conditions
Coal Mines Rules, 1926 (Federal)-	Mine Safety, ventilations and Inspections
Metalliferous Mines Regulations, 1961	Mine Safety Conditions for Miners
KP Environmental Protection Act, 2014 (and earlier Pak-EPA Act)-	Environmental approvals required but weak coordination and integration with MMDD KP

Post-18th Amendment Mineral Licensing Regime:

18th Amendment (2010) changed the constitutional and legal framework governing mineral sector in KP. Concurrent list was abolished and Mines and Mineral sector became a pure provincial subject. The subjects not retained by the Federal Government devolved to provinces except, nuclear minerals and Oil and Gas which are still governed federally under the current Legislative Part 2, entry 23. Article 172(3) reaffirmed Provincial ownership of minerals within provincial territory but also provides for Joint ownership only where expressly provided (e.g., offshore resources). KP acquired exclusive constitutional authority over:

Mineral policy

Licensing and concessions

Royalties and fees

Regulatory enforcement

Federal ministries lost direct regulatory and approval role in the mineral concession process of the KP, and its role has been limited to coordination, advisory and international treaty compliance. The early post 18th Amendment (2010) was marked by KP moving from federal control to provincial autonomy through amending/re-enacting federal era laws. KP Mineral Policy was introduced in 2014 and the first provincial instrument of law governing mine and mineral sector was enacted in 2013 as the KP mines and mineral Act of 2013 (initially it was an ordinance later enacted as an Act). It was the first provincial law that covered different aspects of Mineral Titles (Concession Licenses) procedures after the 18th Amendment.

It was followed by KP mines and Mineral Act of 2017 (Amended 2022 and 2024), which is the current law applicable in KP and is a comprehensive legal framework governing the Mine and Mineral sector of the KP. Khyber-Pakhtunkhwa mineral titles (large and small scale) rules 2017, were made under this law and which are currently in practice.

Primary Rules in Force (Post-2017 Act)

KP Minerals Titles (Large and Small Scale) Mining Rules, 2017	Issuance, renewal, transfer, and conditions of mineral titles including large- and small-scale mining as prescribed
KP Regulation and Enforcement Rules, 2017	Enforcement mechanisms, powers of inspectors and authorized officers, compliance monitoring, and penalties under the Act
KP Royalty Auction Rules, 2017	Procedures for auctioning mineral rights and determining competitive royalties
KP Minor Minerals Permit Rules, 2017-	Regulates the permit regime for minor minerals (e.g., sand, gravel, stone).
KP Minerals Auction Rules, 2022	Updates or broaden auction procedures for mineral rights under the Act and can include new commodity groups and competitive frameworks
KP Mining of Minor Minerals from Riverbed Rules, 2022	Specific provisions governing extraction of river-bed minerals (sand, gravel, etc.), addressing environmental and local concerns.
KP Minerals Appellate Tribunal Rules, 2022-	Establishes procedural rules for the Appellate Tribunal dealing with appeals against decisions of licensing authorities.
KP Mines and Minerals Profit Sharing Agreement Rules, 2023 (Draft)	Proposed rules to operationalize shared revenue/benefit frameworks (Not approved as of yet)
KP Consolidated Mines Rules, 2022-	Consolidates safety, operational, and technical standards across mining categories
KP Metalliferous Mines Rules, 2022	entailed rules for metalliferous mining operations (iron, copper, chromite, etc.).

Proposed KP Mine and Mineral (Bill) 2015

KP government has recently proposed a new law for the mines and mineral sector which is called as Khyber-Pakhtunkhwa Mines and Mineral Bill 2025, which has been introduced in the Provincial Assembly of KP and is still pending in the committee. The new bill is an overhaul of the existing system with introduction of GIS and drone technology-based surveillance, monitoring and exploratory systems along with electronic computerized mining areas and titles registers. This is,

without any doubt, a major leap into the future but at the same time it is also noted that current rules in practice are not in resonance with the new bill. Modern technologies also require on-ground capacity building, field staff training and Lease/title holders' commitment and adoption of modern practices.

Grant and management of Mineral Titles (Current practice)

Part-4 of the KP mines and Mineral Act 2017 and supported by the KP Mineral titles (large and small scale) rules 2017, provides for an elaborate procedure for grant and management of the Mineral titles (Concession Licenses). The KP MMD department has developed an E-portal for electronic application submission and E-mining cadaster. As per the current practice, application for small- or large-scale mining title can be made online on the subject portals which are then evaluated by the MTC, established under section 6 of the same Act. The MTC also referred to as Licensing Authority in the said Act, maintains mineral titles register of applications which is also open to public on prescribed fee. There is detailed step wise mechanism to check the prescribed criteria and conditions before grant of a relevant license by the MTC.

2024 Amendment to the 2017 Act

Passed as Khyber Pakhtunkhwa Act No. III of 2024 with effect from **2 August 2024** The amendment revised fiscal parameters primarily updating **royalty rates for minerals** in Schedule-IV-A of the 2017 Act. Furthermore, Schedule-IV-A (Royalty Table) can now only be amended through the legislative approval and not by the administrative decision.

Precious and Metallic Minerals	Changed to PKR 800 and 500 per ton
Fuel Minerals	Fixed at PKR 500 per ton
Gemstones	Fixed at PKR 50 per kg
Construction and industrial minerals	Barite (PKR500), Granite (PKR600). Per ton

Digitization & Transparency

The MMDD KP, confirmed that the current system uses online e-filing mechanism where an applicant can apply online and there is a cadastral system. But it has been observed that the application process lacks an integrated fully digital system with all stakeholders on board. The online e-filing and application system does provide transparency in a sense that the applicant can go online and check the status of the interested allocated area of mining and check through exact coordinates. The applicant is issued a token number but after that the rest of the process is manual. There is a need for a fully integrated and automated application and license issue system.

Environmental Clearances and Role of Merged Districts

Environmental clearance is not required as a pre-condition. The environment clearance process goes side by side and even after the issuance of license and starting of the mining. The environmental clearance is not embedded in the system. The Customary rights and local traditions influence licensing practice and procedure. There is dichotomy of the rules and procedures for merged districts and settled districts. This is a challenge for the MMDD to cope with this issue in the future particularly when the merged districts still face a bleak picture as far as land records management of merged districts are concerned.

Mineral Investment Facilitation Authority (MIFA), Mineral Titles Committee (MTC) and Department of Mines & Minerals (DGMMDD)

MIFA is Statutory body under the 2017 Act mandated to facilitates investment and streamlines regulatory interactions. It can also Advise on licensing policy with primary role as facilitator while

MTC is also a statutory, but it is a technical decision-making body mandated to approve mineral title License applications after technical analysis as per prescribed procedures. MTC is the main adjudicatory and technical approval body. It is headed by the DG mines with technical members and representative of relevant departments.

DGMMD is the administrative secretariat supporting, Application processing, Compliance monitoring, Field inspections, enforcement of license conditions and issuance of Mineral Titles after approval by the MTC.

Key issues and challenges in the Licensing current regime

High Executive Discretion and Inconsistent Auction Policy

DG MMD retains wide authority despite MTC being statutory body. This leads to weak separation between discretion and rule-based decision-making. Most of the members of the MTC are technical officials who work under the DG and only three members are from other outside relevant departments. DG can easily manage the 2/3 majority of present members. The Act and rules do mention about the auction policy, but it lacks a clear criterion for when competitive auctions must be used. First-come licensing still prevalent for high-value minerals.

Weak Enforcement and Transparency & Predictability

Field enforcement capacity of the MMD is insufficient and lacks training on modern technology tools. The current field enforcement is unable to combat illegal mining and revenue leakages.

The current E-filing and mining cadaster system is not fully integrated and automated though Investors/applicants can verify their mineral title status and apply for a mineral title over a prescribed area of interest. But the system is not integrated with other important stakeholders like environment agency, forest department, BOR. After the application rest of the process is manually done through the MTC and other relevant departments. There is no clear cut standard operating procedures defining processing timelines for different aspects of the application procedure.

Environmental & Social Issues

Mineral title regime often proceeds in parallel with environmental review and compliance. This leads to a paradox and environmental noncompliance. The weak enforcement by the department and the environment agencies further exacerbates the environment situation. The community consent mechanisms are not standardized particularly in merged districts where the mechanism of community engagement is different from the settled districts. This often leads to community reservations and Court cases.

Grant and Management of Mineral Titles (Proposed bill 2025)

Licensing Authority

The proposed Mines and Mineral bill 2025 (section 5, 6), replaces the earlier MTC with LA (Licensing Authority), with almost same composition but addition of EPA and GIS expert of the department. This is a positive step for environmental protection as earlier there was no representative of the EPA. There is a provision of a Director Licensing who will be a qualified mining engineer or geologist.

Integrated Mining Cadaster System

Section 9 of the proposed Mineral Bill 2025 calls for Establishment and maintenance of legally binding digital integrated Mining Cadastre System in the Directorate General. This Mining Cadastre System shall provide various services, including but not limited to-

Submitting applications for the grant, renewal, conversion, amendment, transfer, surrender and cancellation of mineral titles

Submitting applications to participate in auctions for the award of mineral titles under this Act and conducting online auctions

Submitting and responding to bids for the award of mineral titles through competitive bidding processes under this Act.

This will be a fully automated and integrated system. The current system is semi-automated and semi-integrated. This will really improve transparency and timely disposal, but its full integration is dependent upon the implementation by the lease holders.

Digital Registers

This is another technological improvement in the system. Section 10 of the subject proposed Bill 2025, authorizes the MMD to establish online and fully digital mineral title application register, mineral reserve area register and mining cadastre register within two (2) years from the commencement date of the Act, which shall provide data in respect of all types of mineral titles granted and awarded by the Licensing Authority in the Province

Auction Committees

The section 11 of the proposed bill of 2025 Establishes Auction Committees for all minerals other than minor minerals at Directorate General level and Auctions committees at District level for minor minerals. The composition of these committees shall be prescribed. In the existing law that is act of 2017 and subsequent rules, Auction committees are not embedded in the system. The power to decide about the Auction rests with the LA.

Appellate Tribunal

Another landmark feature of the proposed Minerals Bill of 2025 is the Establishment of Appellate Tribunal as per its section 22. It shall consist of a former Judge of the High Court, two representatives of the Law, Parliamentary affairs and Human Rights department and two qualified mining engineers or geologists appointed by the Provincial Government as per the prescribed criteria. In the existing law the Secretary to the Mine and Minerals department is the Appellate Tribunal. The tribunal shall hear appeals by the aggrieved title holder against the decision made, direction, notification or order issued, proceedings undertaken by the concerning Authorities, the DG, an authorized officer.

Mineral title categories and types under proposed Bill

For Large-scale Mining, the following mineral titles may be granted by the Licensing Authority in accordance with this Act-

- (a) reconnaissance license.
- (b) exploration license:
- (c) mineral deposit retention license.
- (d) mining lease (Large-scale-Mining)

For Small-scale-Mining, other than in respect of minor minerals, the following mineral titles may be granted by the Licensing Authority in accordance with this Act-

- (e) prospecting license; and
- (f) mining lease (Small-scale-Mining).

For minor minerals, a mining lease (Small-scale-Mining) may be granted by the Minor Minerals Licensing Authority in accordance with this Act.

For projects of national interest, a temporary permit may also be granted to a relevant Government department or public organization by the Licensing Authority or, in relation to minor minerals, the Minor Minerals Licensing Authority, in accordance with this Act.

Financial and technical capacity

The proposed bill has categorically mentioned certain pre-conditions for granting a mineral title. This is a very welcoming step and something that was missing in previous law and is also one of the reasons why the KP mineral regime cannot be modeled as per modern technology. Part 5 (section 46) of the proposed bill envisages the technical and financial criteria for granting a relevant mineral title. This is like financial and technical feasibility during the application process and before the decision on the application. In the current law and as per practice any individual, whether technically and financially able or not, can apply for grant of a title. The criteria are quite simple. As per the officials of the MMDD KP, majority of the leaseholders are not technically sound nor able to implement the modern technologies.

Rest of the procedures in the proposed 2025 bill are on the pattern of the previous law with exceptions like MTC has been re-designated as LA.

Auctions and Competitive Bidding

The proposed KP Minerals bill 2025 has a specific chapter for Auctions and Competitive bidding, Part-6. The power to decide about auction or competitive bidding is given to the Licensing Authorities constituted in this Bill. The procedures are yet to be prescribed. The words “may” and “wherever applicable” leaves allot for the authority to decide. There is no clear-cut definition nor categorization.

Provincial Autonomy VS Federalism

Section 6(i): Federal Advisory Role in Licensing Decisions

Section 6(i) of the proposed bill allows the provincial Licensing Authority to “implement recommendations of the Mineral Investment Facilitation Authority (MIFA) and may implement suggestions of the Federal Mineral Wing in relation to the powers and functions of the Licensing Authority.” In pure constitutional terms, if a provincial body’s licensing decisions can be shaped by federal suggestions, that may undermine the province’s independent legislative and administrative domain in mineral governance.

Inclusion of Federal Representation within MIFA

Section 19(2) reportedly expands the Mineral Investment Facilitation Authority to include a federal representative by invitation alongside provincial ministers. Opposition political parties and civil society groups assert that allowing federal representation with voting or decision-influencing capacity introduces federal leverage over provincial resource governance.

Definition of Strategic and Rare Earth minerals

Federal Government has not defined the “Rare Earth” or ‘Strategic Minerals’. The Provincial Governments and Leaseholders/Investors have apprehensions that the Federal Government may include any high value mineral in the category of Rare earth or Strategic Mineral in the future. These categories must not be left open.

Health, Safety and Environmental Governance in KP Mineral Sector

Although Pakistan’s Constitution does not expressly guarantee a right to a clean environment, the Supreme Court filled this gap through Article 9 (Right to Life) in the landmark case **Shehla Zia v. WAPDA (PLD 1994 SC 693)**. The Court held that the right to life extends beyond mere physical existence to include a clean, healthy, and safe environment, thereby constitutionalizing

environmental protection. Justice Saleem Akhtar emphasized that life means more than “animal existence” and includes environmental well-being. (Supreme Court of Pakistan. 1994)

This principle was reinforced in **Salt Miners Labor Union v. Director Industries (PLD 1994 SC 206)**, where the Court ruled that industrial pollution of water sources violated Article 9 and ordered the relocation of polluting activities, affirming that economic activity cannot override public health. (Supreme Court of Pakistan. 1994)

Implications for mining and corporate responsibility are clear:

Authorities must act preventively to avoid environmental harm.

Private companies are constitutionally accountable for pollution, regardless of licenses; and

Environmental laws are enforceable constitutional obligations, not optional policy choices

HSE Constitutional and Regulatory Framework

The governance framework for health, safety, and environmental (HSE) regulation in the mineral sector of Khyber Pakhtunkhwa (KP) is built on a layered legal and institutional structure. This framework emerged following a 18th amendment that shifted authority from the federal government to the provinces. As a result, KP developed its own provincial legislation to regulate mining activities in a more localized and responsive manner. The current HSE governance system reflects this transition from centralized control to provincial autonomy, with the aim of improving oversight, accountability, and regulatory effectiveness. Following the devolution of powers, Khyber Pakhtunkhwa enacted a series of laws to regulate mining activities. Together, these laws constitute the province’s HSE governance regime.

Importantly, compliance with all applicable provincial laws—particularly those relating to safety and environmental protection—is made a prerequisite for obtaining and retaining a mineral title (Khyber Pakhtunkhwa Minerals Sector Governance Act, 2017,).

Khyber Pakhtunkhwa Mines Safety, Inspection and Regulation Act, 2019

The Mines Safety, Inspection and Regulation Act, 2019 is the most critical piece of legislation addressing the “health and safety” components of HSE governance. It replaced the colonial-era Mines Act, 1923, and introduced updated safety standards along with a strengthened inspection regime.

Worker Health and Safety

The Act clearly defines the responsibilities of mine owners, managers, and agents to ensure safe working conditions. These responsibilities include adequate ventilation, dust suppression, proper roof support, emergency preparedness, and the provision of personal protective equipment (PPE) to workers (Khyber Pakhtunkhwa Mines Safety, Inspection and Regulation Act, 2019, Chapter IV).

Inspection and Regulatory Powers

The Act empowers a Chief Inspector and appoints mine inspectors with broad authority to enter and inspect mines at any time. Inspectors may investigate accidents, conduct formal inquiries, and issue improvement or prohibition notices when unsafe conditions are identified. In cases of imminent danger, inspectors have the authority to immediately halt mining operations (Chapter II).

Health Provisions

In addition to operational safety, the Act includes specific health-related measures. These include requirements for clean drinking water, sanitation facilities, first-aid stations, and occupational health surveillance. The latter is particularly important for monitoring and preventing mining-related diseases such as silicosis and other respiratory

Khyber Pakhtunkhwa Environmental Protection Act, 2014

Environmental governance within the mining sector is regulated through the Khyber Pakhtunkhwa Environmental Protection Act, 2014, which applies to all development projects, including mineral extraction. The Act is implemented by the KP Environmental Protection Agency (KP-EPA).

Environmental Assessment:

The Act makes environmental assessment legally mandatory prior to the commencement of mining projects. Depending on the scale and potential environmental impact, project proponents must conduct either an Initial Environmental Examination (IEE) or a comprehensive Environmental Impact Assessment (EIA) (Khyber Pakhtunkhwa Environmental Protection Act, 2014, §13). IEE and EIA reports must be submitted to the KP-EPA for review and approval. Approval is conditional and typically includes mitigation measures related to waste management, water protection, land rehabilitation, and pollution control. The EPA is also responsible for monitoring compliance throughout.

The Act prohibits the release of pollutants beyond prescribed National Environmental Quality Standards (NEQS). Violations may result in penalties, including fines and imprisonment, thereby providing a legal deterrent against environmental degradation.

KP Occupational Safety and Health Act 2022

The Khyber Pakhtunkhwa Occupational Safety and Health Act, 2022 imposes a general duty of care on employers to provide safe and healthy working conditions and authorizes inspectors to issue improvement and prohibition notices to address non-compliance. This regulatory authority extends across all sectors, including high-risk workplaces such as mines, thereby strengthening the province's legal framework for occupational safety and health.

The Workers' Compensation Act, 2013 was enacted to provide financial protection and legal redress to workers who suffer injury, disability, or death arising out of and in the course of employment. The Act establishes an employer's statutory liability to compensate workers or their dependents without the need to prove fault, ensuring timely and predictable relief. Its purpose is to reduce the economic vulnerability of workers and their families, promote employer accountability for workplace safety, and support social justice by guaranteeing compensation for occupational risks, particularly in hazardous sectors such as mining, construction, and industry.

Analysis of Issues and Challenges

Despite the presence of a seemingly comprehensive legal framework, the effectiveness of health, safety, and environmental (HSE) governance in Khyber Pakhtunkhwa's mineral sector remains constrained by a range of structural, institutional, and practical weaknesses. A closer examination reveals a clear gap between legal intent and regulatory outcomes, where laws appear robust on paper but suffer from inconsistent implementation and weak integration in practice

Fragmentation of the Legal Framework

One of the most significant weaknesses in KP's HSE governance lies in the fragmented nature of its regulatory framework. Health and safety, environmental protection, and mineral governance are regulated through separate statutes enacted at different points in time, often in response to immediate policy pressures rather than as part of a unified strategy

Enforcement Capacity and Institutional Constraints

A further critical challenge is the limited enforcement capacity of regulatory institutions. Both the mines inspectorate and the KP-EPA face persistent shortages of trained personnel, technical

expertise, and logistical support. These constraints are particularly pronounced in remote and mountainous mining regions, where inspections are often infrequent and reactive, significantly reducing the deterrent effect of regulatory oversight.

Reactive Rather Than Preventive Regulatory Framework

From a governance perspective, KP's HSE framework remains largely reactive rather than preventive. The enactment of the Mines Safety, Inspection and Regulation Act, 2019 was largely a response to repeated mining accidents, rather than the outcome of a proactive and risk-based safety strategy. Another major shortcoming of HSE governance in KP's mineral sector is the lack of worker-centered protections without empowering workers as active participants in safety governance

Environmental Governance Challenges

Although the Environmental Protection Act, 2014 provides a strong procedural framework through the requirement of IEE and EIA, environmental governance in the mining sector often suffers from weak post-approval monitoring. Once environmental clearance is granted, sustained oversight is inconsistent, particularly for small and medium-scale mining operations.

Trade, Standards and Export Promotion in KP's Mineral Sector

Constitutional and Regulatory Framework

In KP, the governance of the mineral sector operates through a complex interaction between federal constitutional authority and provincial legislative power. While the 18th Constitutional Amendment (2010) significantly expanded provincial control over natural resources, key areas such as trade, exports, and national economic coordination remain either shared or federally managed. This dual structure creates both opportunities and tensions in the regulation of KP's mineral sector.

Despite provincial ownership of minerals, the Constitution reserves certain powers for the Federation that directly affect the mineral sector:

Part I, Entry 27 (Import and Export across customs frontiers):

This entry grants exclusive authority to the Federal Government over foreign trade. Consequently, while KP controls mineral extraction and licensing, the regulation of mineral exports remains under the Federal Ministry of Commerce.

Part II, Entry 2 and 14 (Minerals, oil, and natural gas – Council of Common Interests):

This entry places mineral-related policy matters with national economic implications under the jurisdiction of the CCI. The CCI serves as a constitutional forum for resolving disputes between the Federation and provinces, particularly where mineral development intersects with national interests.

Article 158 of Constitution: Priority in Utilization

Article 158 strengthens the provincial position by granting the province in which a resource is produced priority in its utilization. In the context of KP's mineral sector, this provision is frequently cited to support arguments for local value addition and domestic processing before minerals are exported.

Standard and Compliance:

The KP Minerals Sector Governance Act, 2017 empowers the provincial government to prescribe technical, safety, and operational standards for mining activities. Chapter V provides for regulation and enforcement, authorizing inspections to ensure compliance with applicable laws and standards.

Export and Value Addition:

While the province lacks constitutional authority to regulate exports directly, the Act enables KP to encourage value addition by setting conditions within licensing frameworks. This allows the province to promote local processing of raw minerals prior to their movement beyond provincial boundaries.

KP Mines and Minerals Act, 2025 (Proposed)

As of late 2025, a new KP Mines and Minerals Bill remains under active debate. The proposed legislation aims to modernize mineral governance by: Aligning provincial regulatory frameworks with the SIFC to accelerate foreign investment. Centralizing certain approval processes to reduce procedural delays.

Controversy and Constitutional Concerns:

The bill has generated significant resistance from provincial stakeholders who argue that it risks federal overreach into constitutionally protected provincial mineral rights. Critics contend that excessive alignment with federal investment frameworks could undermine the spirit of the 18th Amendment by diluting provincial autonomy.

Standards and Export Promotion: Federal–Provincial Interface

The regulation of mining standards and export promotion represents the most visible intersection between provincial authority and federal trade policy.

Provincial Role (KP)**KP Mineral Development Policy, 2022:**

This policy emphasizes a strategic shift from raw mineral exports toward value-added production, offering incentives for establishing marble, gemstone, and mineral processing units within the province.

KP Minerals Titles Rules, 2017:

These rules prescribe technical and operational standards for mining activities. Failure to meet these standards can result in license suspension or cancellation, indirectly affecting a miner's ability to participate in export markets

Federal Role**Export Policy Order (as amended):**

Issued by the Federal Ministry of Commerce, this policy identifies minerals that are restricted, prohibited, or subject to special export permits.

Trade Development Authority of Pakistan (TDAP):

TDAP collaborates with KP's MDD to promote provincial mineral resources through international exhibitions and trade events, such as gemstone and jewelry expos.

Analysis of Issues and Challenges

The National Mineral Policy 2013 is not updated, and various sub clauses are in contradiction with provincial mineral policies as after 18th amendments the mineral chapter is given to provincial governments. Despite legislative reform following the 18th Amendment, mineral governance continues to reflect institutional inertia, regulatory fragmentation, and ambiguity in federal–provincial relations. Lack of uniformity between the national mineral policy and provincial mining policies/laws results in procedural delays and creates hurdles for investors particularly for foreign investors

Constitutional Friction and Federal Overreach

Although Article 172(3) of the Constitution vests ownership of solid minerals in the provinces, with the proposed Mines and Minerals Bill 2025, a substantial legal gray area has emerged due to the growing influence of federal coordination mechanisms, particularly the SIFC and the Federal Mineral Wing. While currently the opposition to the Bill 2025 is based on Federal overreach but

this Federal “Overreach” can be converted to an opportunity for International Trade and Export Promotion.

The SIFC Governance

A more serious concern arises from the absence of a clear constitutional or statutory mechanism to resolve disputes between the provincial government and the SIFC over lease allocation or investment approvals. Given the SIFC’s federal-civil-military composition, disagreements introduce sovereign risk for international investors, who face uncertainty over which authority ultimately prevails. This ambiguity weakens legal predictability an essential condition for long-term mineral trade and export contracts.

Structural Barriers to Export Competitiveness

Despite possessing abundant mineral resources, KP continues to export predominantly raw ore, capturing only a fraction of the global value chain. This outcome is not merely economic; it is rooted in legal and regulatory deficiencies.

Absence of Mandatory Quality and Grading Standards

Existing provincial laws focus heavily on extraction procedures but pay little attention to product quality. There is no statutory framework mandating internationally recognized grading standards for minerals such as marble or gemstones. As a result, KP lacks an officially recognized “KP Standard” certification, forcing exporters to accept steep price discounts in global markets where quality assurance is paramount. (Haq,2025)

Weak Value-Addition Requirements

While the KP Minerals Sector Governance Act, 2017 encourages value addition, it stops short of imposing legally binding processing thresholds. Without mandatory local processing requirements, raw marble blocks and uncut gemstones are routinely exported to countries such as China and Italy for finishing. This legal permissiveness results in substantial revenue leakage and undermines KP’s industrial development objectives.

Marginalization of Small-Scale Miners

Small-scale and artisanal miners form the backbone of KP’s mineral economy, employing over half a million people. However, the proposed 2025 bill significantly raises bank guarantee requirements up to Rs. 25 million effectively excluding small operators and privileging LSM entities. Without a legal pathway for small miners to formalize and upgrade their operations, the law risks pushing economic activity into informal or illegal channels, thereby weakening regulatory oversight and export compliance.

Geological Information Deficit

KP’s legal framework does not obligate the government to publish verified geological data or proven reserve estimates. This information vacuum forces investors to rely on informal networks and speculative assessments, discouraging reputable international firms and enabling local cartels to dominate trade and extraction.

Analysis of the Inter-Governmental Relations

Article 153 (1) of the Constitution of Pakistan established a statutory body called as CCI. Article 154 (1) read with part -2 of Federal Legislative List, authorizes the CCI to formulate and regulate policies and exercise supervision and control over related institutions of the subjects mentioned in above list, including Mines and Minerals.

The CCI's role is very critical as such constitutional forum is not available in countries like the US, the Australia or even in India. Where nonpartisan or bodies established under statutes are working to enhance cooperation between center and states/ unions. However, after passage of the Eighteenth Constitutional Amendment, it is mandatory for the Council to meet once in ninety days. As such, the Council has held 40 meetings from 2010 till date.

KP Mineral Regime Comparison with Punjab and Balochistan

	KP	Punjab	Balochistan
Legal Framework	KP Mines & Minerals Act, 2017 (proposed 2025 Bill) and KP Mineral Rules 2017	Punjab Mines and Mineral Act 2025. Punjab Mineral Rules 2013 (Amended)	Balochistan Mineral Rules, 2002 (under 1948 Act); 2025 provincial Act passed but suspended
Statutory Reform Status	Reforms proposed in 2025 Bill (pending enactment)	2013 rules actively updated through 2023–25 amendments (auction, digital monitoring)	2025 Act passed but suspended: legacy rules still operative
Application Submission	partial electronic; 2025 Bill proposes full digital portal	Electronic (online) for permits/leases; major minerals partial online	Paper based and Administrative
Role of Auctions	Increasing but not fully universal only for large scale lease; 2025 Bill aims to institutionalize	Institutionalized for minor minerals; fixed terms; auction rules defined	Limited or absent; no formal auction rules in 2002 framework
Digital Cadastre / Public Register	Proposed under 2025 reforms: currently partial	Rule amendments (2025) require online monitoring but not full cadastre	Proposed under 2025 Act, currently not in practice.
Appeals / Dispute Resolution	Tribunal proposed (2025 Bill); Currently departmental	Tribunal proposed (2025 Act); Currently departmental	Tribunal proposed (2025 Bill); Currently departmental
Exploration Rights	Granted Administratively, inconsistent work programs requirement	Claim Staking	Granted Administratively with strict work obligations
Mode of Allocation (Small Scale)	Administrative discretion	Land based/application system based on claim staking	Administrative Discretion with standardized technical and environmental assessment.

KP Licensing Regime Key Findings from Provinces comparison:

Punjab Leads in competitive allocation for minor minerals through structured auctions under 2025 Rules amendments and GPS monitoring mechanisms. KP has proposed such structured mechanism in 2025 Bill.

Interestingly all the three provinces have same draft proposed Mines and Minerals Law 2025, Balochistan and Punjab Assemblies have passed it while it is still pending in KP Assembly. This will lead to harmonization the Mines and mineral potential in the country.

KP Mineral Regime Comparison with US and Australia

Dimension	KP	US	AUS
Ownership of Minerals	Provincial government after 18 th Amendment; Article 172(3)	Federal and State Ownership depending on land type whether Federal, State or private	State/territory ownership
Type of Mineral titles	Large Scale and Small Scale	Claims, Leases, permits (varies by land)	Prospecting, Exploration, Mining, Retention, (Same like KP)
Mining Grant Lease	Administrative and Technical review and auction for minor minerals as prescribed.	Approval only after prescribed regulatory and environmental compliance based on type of Land	Approval only after standardized technical, financial and environmental clearance
Technical Criteria	Not fully standardized		Standardized criteria-JORC (Mineralization report and economic viability)
Environmental Approval	Separate process and often post grant of title	Mandatory before mining (NEPA, SMCRA frameworks and state laws)	Integrated Environmental approvals in the system as pre-condition.
Local Community Protection	Present but not standardized and inconsistent	Title Pre-Condition community protection (Tribal indigenous people right, NEPA)	Title pre-condition community protection (Native Title Act, land access agreements)
Exploration Rights	Granted Administratively, inconsistent work programs requirement	Claim Staking	Granted Administratively with strict work obligations
Mode of Allocation (Small Scale)	Administrative discretion	Land based/application system based on claim staking	Administrative Discretion with standardized technical and environmental assessment.
Primary Governing Law and Rules	KP Mines & Minerals Act, 2017 (proposed 2025 Bill)	Federal Mining Law (1872) + State mining laws	State/Territory Mining Acts (e.g., WA Mining Act 1978)
Title application timelines	NO timelines	Statutory and predictable	Statutory and predictable
Licensing Authority	DG Mines / Licensing Authority under Provincial Govt	Federal agencies (BLM/USFS) + State mining departments	State/Territory mining departments
Mineral Cadastre	Partial; improving; full digital cadastre	Fully developed and integrated federal & state cadastral systems	Fully automated, integrated and digital-

	proposed (2025 Bill) but not implemented		Victoria-GeoVic, NSW-TMS
Transparency of Area availability	Limited public visibility; improving	High transparency via online public land databases	High transparency via online public land databases
Mineral Enforcement Capacity	Very Low, proposed provisions of Mining Force and enhance penalties (Bill 2025)	Very High, Statutory bonding, reclamation, and federal oversight (OSMRE)	Very High, Statutory bonding, Mandatory reporting, compliance
Health and safety governance	Provisions within mining acts, often based on outdated frameworks like the colonial-era Mines Act 1923. KP Directorate of Mines & Minerals (limited technical & inspection capacity). Prescriptive rules with weak enforcement; high incidence of accidents in informal/small-scale mining.	MSHA Act is one of the world's strictest. Mandates frequent inspections, training, and confers strong enforcement powers (fines, closure orders). Mine Safety & Health Administration (MSHA) a powerful, independent federal enforcement agency. Zero-tolerance enforcement, "pattern of violations" system, and a strong safety culture.	Modern, risk-based Model WHS Laws adopted by states. Duty of care on operators to ensure safety "so far as is reasonably practicable." State WHS regulators (e.g., Resources Safety & Health Queensland). Risk management, safety case regimes for major hazards, and strong emphasis on corporate and officer liability.
Environmental Governance	KP Environmental Protection Act 2014 mandates IEE and EIA, EPA under resourced. Procedural compliance often weak; lack of stringent monitoring, enforcement, and mine closure/rehabilitation bonds. Significant issues with water pollution and land degradation.	NEPA requires detailed Environmental Impact Statements (EIS) for major federal actions. Clean Air/Water Acts set strict discharge standards. EPA and state equivalents. Rigorous scientific assessment, public participation, and strict permitting. Strong federal oversight for projects affecting federal land or waters.	EPBC Act for matters of national environmental significance. Robust state-level requirements for Environmental Management Plans (EMPs) and Mine Closure Plans. Federal Dept. of Climate Change, Energy, Environment & Water; state departments (e.g., Dept. of Water & Environmental Regulation, WA). World-leading emphasis on biodiversity offsets and financial assurance (rehabilitation bonds) . Rehabilitation is legally required and strictly enforced.

Trade, Standards & Export Promotion	Fragmented. Provincial control over mining, but federal control over export policy, tariffs, and international treaties. Federal Ministry of Commerce, TDAP ; provincial departments with limited coordination. Predominantly export of raw/rough minerals (e.g., marble blocks). Weak quality standardization, minimal value-addition infrastructure, and complex logistics hinder competitiveness.	Market-driven with federal support. Stockpiling acts for strategic minerals. Department of Commerce, International Trade Administration; U.S. Geological Survey (critical minerals data). Promoting free trade agreements, providing market intelligence, and supporting research for downstream processing. Strong private sector-led value chains.	Strong integration of trade policy with resource development. Federal government negotiates trade deals to benefit mining sector. Department of Foreign Affairs & Trade (DFAT), Austrade. Industry body: Minerals Council of Australia. Focus: Highly sophisticated value-added exports (processed minerals, LNG, metallurgical coal). World-class analytical laboratories (e.g., CSIRO) set de facto global standards for ore quality.
Appeal mechanisms	Tribunal proposed (2025 Bill); courts	Administrative appeal + courts	Mining wardens / tribunals + courts

KP Licensing Regime Key Findings from international comparison

KP relies more on administrative discretion with lesser technical and environmental controls, US system is rights based and rule driven with strict environmental and technical protocols and Australia represents the global gold standard for mineral licensing administration with an all-encompassing digital cadastre system.

US and Australian mineral licensing system have far stronger Environmental and indigenous communities' protection safeguards

KP mineral sector enforcement mechanisms are obsolete and not technology driven

Unlike US and Australia, KP has a semi-automated cadastre system which is not fully integrated, and the administrated processes are not predictable.

KP Minerals Sector Fiscal Regime and Revenue Sharing

Revenue sharing in Pakistan & KP	Revenue Sharing/ Legislation mandate in Australia	Revenue sharing in Canada	Remarks

Pre 18th amendment the Federation was responsible to collect taxes in relation to Minerals. Key legislation included Regulation of Mines and Oil fields and Mineral Development (Government Control) Act 1948, National Mineral Policy 1995& 2013. KP mineral Policy 2014 & 2022. KP Mines and Mineral Act, 2017, KP Finance Act 2024 and the KP Mines and Minerals Profit Sharing Rules 2023. Present regime in KP subject to the constitution collects Royalty, Annual Rent, Annual Fee, and Performance Guarantee etc. Similarly federal govt collects Federal duty on excise in respect of minerals falling in Centre's domain.	The Australian Commonwealth government administers policy for mineral and petroleum exploration in Australia's offshore areas. Responsibility for onshore legislation lies with Australia's states and territories. The state and Northern Territory governments collect royalties on mineral production in return for granting the right to private businesses to exploit mineral resources within their jurisdictions. With limited exceptions, these take the form of output-based royalties imposed as a percentage of the value of production or, less commonly, the volume of production. Royalty payments are a deduction for company income tax purposes. Royalty systems on minerals across Australian states and the Northern Territory vary by both jurisdiction and commodity.	Minerals tax collection in Canada is a shared responsibility, with significant revenue generated at the provincial level, while the federal government focuses on corporate income tax and sector-specific incentives. the Constitution mandates provincial governments to manage natural resources, including minerals extraction. Provinc es own the resources, manage mining site regulations, and collect royalties while Federal Govt. oversees international trade, environmental protection (impact assessments), and state's economic policy.	There are gaps in revenue sharing since the Minerals department in KP owing to HR constraints has outsourced Royalty and other tax collection which needs to be addressed and subject to efficient checks, the department may go for collecting the same through own HR. To bring uniformity in all provinces the Federal Govt be given exclusive mandate on area like Environment assessment and export of minerals and mineral products.
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Key Issues and challenges

Royalty and other tax collection being outsourced do not give the real impact of tax collection. Although law covers establishment of weighing machines at crucial points like mining sites but unfortunately no such arrangement has been witnessed on the spot which if provided will enhance transparency and actual assessment /collection.

KP tax schedule provides royalty rate @ single mineral instead of various categories of the same mineral. The center or the province may introduce a committee/ laboratory on the pattern of JORC (Joint Ore Reserve Committee) in Australia to classify minerals into various categories as well as to report exploration results, ore reserves and mineral resources which will ultimately boost better assessment/ collection of Royalty.

Analytical techniques:

Fishbone (Ishikawa) Analysis

Problem Statement

Post-18th Amendment provincial autonomy has not translated into effective governance, investment efficiency, or sustainable value extraction in KP's mineral sector.

A. Legal & Regulatory Design

- Overlapping and fragmented statutes (Mining, HSE, Environment, Labor)
- Absence of binding timelines and statutory SOPs
- Discretionary language ("may", "where applicable") in auctions and licensing
- Environmental clearance not embedded as a pre-condition

B. Institutional Structure

- Concentration of power in DG MMDD despite statutory bodies
- Weak separation between regulator, approver, and enforcer
- Departmental Appellate Authority (pre-2025) lacking independence

C. Process & Systems

- Semi-digital cadastre with manual back-end processing
- No single-window integration (EPA, Forest, BOR)
- Lack of automated royalty measurement (weighbridges, GIS tracking)

D. Human & Technical Capacity

- Inadequate trained inspectors and enforcement staff
- Limited GIS, drone, and remote-sensing capabilities
- Leaseholders lacking technical and financial competence

E. Political Economy & Federalism

- Undefined "strategic/rare earth minerals"
- Federal advisory influence via MIFA/SIFC
- Investor uncertainty over authority hierarchy

Fishbone Analysis Conclusion:

Governance failure is systemic, not constitutional rooted in design flaws, discretion, capacity constraints, and weak integration.

PESTLE Analysis

Political

Post-18th Amendment autonomy vs federal coordination pressure (CCI, SIFC)

Sensitivities around merged districts and customary land rights

Resistance to perceived federal overreach in 2025 Bill

Economic

Export of raw minerals → loss of value chain

Revenue leakage due to outsourced collection and weak monitoring

Small-scale miners economically marginalized by high guarantees

Social

Non-standardized community consent mechanisms

Mining-related accidents and occupational diseases

Informality dominating employment structure

Technological

Partial e-cadastre and e-filing

Absence of real-time production tracking

Proposed GIS/drone systems not matched with field capacity

Legal

Fragmented statutes and discretionary rules

Weak appeal and dispute-resolution mechanisms

Ambiguity in auction and allocation criteria

Environmental

Parallel rather than integrated environmental approvals

Weak post-EIA monitoring

Riverbed mining and land degradation

Key-Insight:

KP's mineral regime operates in a **high-risk, low-predictability policy environment**, discouraging long-term investment.

EETH (Equity – Efficiency – Transparency – Human Rights)

Equity

Small-scale and artisanal miners excluded by financial thresholds

Unequal access to licenses due to discretionary allocation

Merged districts disadvantaged due to weak land records

Efficiency

Delayed and unpredictable licensing decisions

Manual workflows despite digital front-end

Poor coordination between departments

Transparency

Partial transparency at application stage only

No public dashboards for production, royalties, or compliance

Auctions not rule-bound

Human Rights

Right to life and clean environment compromised (Article 9 jurisprudence)

Weak occupational safety enforcement

Limited worker participation in safety governance

EETH Conclusion

The regime fails most sharply on **Efficiency and Equity**, which in turn undermines Transparency and Rights protection.

Pareto (80/20) Principle

As per the 80/20 rule, the following 20% of the recommendations shall achieve 80% of the issues and challenged.

Legally Binding Integrated Digital Cadastre & One-Window System
This single reform underpins transparency, speed, enforcement, revenue tracking, and inter-departmental coordination.

Reduced discretion and rent-seeking

Faster licensing decisions

Improved enforcement and revenue monitoring

Institutional accountability

Clear Allocation Pathways: Auction vs Administrative Licensing: Uncertainty over allocation method is the main cause of weak revenue realization and litigation.

Revenue maximization for high-value minerals

Protection of small-scale miners

Reduced legal disputes

Policy predictability

Gap Analysis

Objective	Current state 2017 Act and Relevant Rules	Proposed 2025 Bill	Desired State	GAP	Remedial action
Fully Integrated Digital Cadastre	Paper plus partially Digital system	Digital Cadastre	Fully integrated, Digital and Legally binding	Legally Binding and Integration with other stakeholders	Amendment in Rules and Law Proposed ->One Window
Allocation of Mineral Title	Administrative Discretion with limited auction	Administrative Discretion, Auction Committees mentioned	Defined Categories	Rules lack categorization and defined process	Rules Amendment proposed categorization of Minerals
Environmental Clearance	Post-License	Parallel to Licensing Process	Pre-condition to License	Not declared a pre-Condition	Rules Amendment proposed
Royalty Collection	Out-Sourced	Unchanged	Institutionalized and Digital	Operational gap/Outsourced	Rules Amendment for mandatory institutionalization and capacity dev.
Trial Court for Offences Minerals and Forest	Judicial magistrate	Unchanged	Legal Inconsistency	CrPC 14A- AC is Special magistrate for Minerals and Forest	Act and Rules Amendment to declare Special magistrate as trial court

Conclusion:

This work establishes that the persistent underperformance of Khyber Pakhtunkhwa's mineral sector is fundamentally a governance challenge rather than a resource constraint. While the KP Mines & Minerals Act, 2017 and the proposed Mines & Minerals Bill, 2025 reflect reform intent, they fall short of translating legislative ambition into predictable, transparent, and enforceable outcomes. Discretionary licensing, fragmented institutional mandates, weak environmental and safety integration, and limited community participation continue to undermine revenue realization, investor confidence, and social legitimacy.

The application of GAP, EETH (Equity, Efficiency, Transparency, Human Rights), and Pareto analyses demonstrates that targeted, system-level interventions can generate disproportionate improvements. Priority reforms—such as a legally binding digital mineral cadastre and one-window licensing system, rule-based allocation through auctions and administrative pathways, time-bound licensing with deemed approvals, independent technical review, and environmental and occupational safety compliance as pre-conditions—directly address the structural drivers of opacity, delay, and regulatory capture.

Equally, the analysis underscores that sustainable mineral development cannot be achieved without social and environmental credibility. Formalizing community endorsement, benefit-sharing mechanisms, mine rehabilitation obligations, and risk-based safety regulation is essential for securing a durable social license to operate, particularly in conflict-prone and transitioning districts. Clarifying transitional regimes in Merged Districts and rationalizing dispute resolution further strengthens legal certainty and enforcement capacity.

In sum, the proposed reform agenda offers a pragmatic, constitutionally sound pathway for transforming KP's mineral sector into a transparent, competitive, and sustainable system. Its implementation would position the province as a reform leader, capable of converting mineral endowment into inclusive growth, fiscal stability, and long-term development outcomes.

Recommendations

Establishment of a fully digital and integrated mineral cadastre system and One Window Online Management System

KP mineral sector Licensing decisions are opaque, paper-based, and lack real-time public visibility. KP must develop and implement a legally recognized and binding **Integrated Digital Licensing & Cadastre System (IDLCS)** covering; Real-time license status, Overlap detection, Title holders and boundaries, Royalty and payment history, Environmental compliance and certifications, revenues, violations, fines, and taxes and technical evaluations. All activities much be managed through this portal.

One Window facilitation system will be established at DGMM with integration with EPA, Forest Department, KP Board of Investment, SIFC and federal minerals wing representation and relevant authorities.

2025 Bill mandates a fully integration digital system but **lacks specific legal duties, data standards, administrative and public access rules**. The rules under this proposed bill are yet to be framed. (DGMMMD).

The following changes will be required in the relevant laws and rules.

Amend the KP Mines & Minerals Act, 2017 or further modify the proposed bill 2025 to:

a. Specify the IDLCS as the official register of applications of mineral titles and register of leases etc. (amend Section dealing with registers)

Draft separate Digital Cadastre and One Window Operations Rules, which shall cover all aspects of implementation and standardization.

Define clear allocation pathways Administrative VS Auction

In the current framework there is uncertainty over when competitive auctions must be used which results in inconsistency and weak revenue realization.

Adopt **categorization of mineral rights**:

Category A: High-value, commercial minerals — allocated by competitive auction only.

Category B: Small-scale or subsistence minerals — allocated by administrative licensing.

Set **thresholds** (e.g., value/area/market criteria) for classification.

Amend the existing Rules to:

a. Specify auction thresholds and modalities.

b. Define administrative licensing criteria.

Add a new Schedule to the Act listing Category A/B mineral groups.

Insert a **new Schedule reference**:

“Mineral titles shall be granted either through competitive auction or administrative licensing, in accordance with the Schedule specifying mineral categories and thresholds.”

2025 Bill mentions auction committees but does **not codify clear thresholds or pathways**.

Standard Licensing Process and Timelines

The current licensing regime is facing delay and discretion at multiple stages.

Adopt legally mandated **processing timelines**:

Reconnaissance License — 15 days

Exploration License — 30 days

Mining Lease — 60 days after technical approval

Grounds for refusal must be express and time bound

Amend the Act (or Rules) to:

Insert processing timeline requirements

Prescribe deemed approval provisions if timelines are exceeded without valid reason

Limit DG discretionary intervention

2025 Bill reduces license duration but lacks **defined procedural deadlines and deemed approvals**

Independent Technical Review panel:

Establish a **statutory Independent Technical Panel (ITP)**

Comprising geologists, mining engineers, valuers, and independent experts

ITP reviews technical aspects before licensing authority decisions.

ITP will be created as a statutory body with separate rules.

Integration of Environmental clearance as a pre-condition

In current practice Environmental compliance often follows licensing and mining, leading to environmental degradation and weakening safeguards.

Require conditional environmental clearance before license issuance (EIA/IEE checklist) and integrate into the IDMC with process timelines

License validity is contingent on Submission of clearance certificate and Compliance with environmental conditions

Amend the existing Rules to:

Make environmental clearance a pre-condition

Empower the Licensing Authority to suspend licenses on environmental non-compliance

Insert a condition precedent clause:

“No exploration license or mining lease shall be issued or renewed unless the applicant has obtained the requisite environmental clearance under applicable law.”

2025 Bill emphasizes environmental safeguards but not necessarily **pre-conditions integrated into licensing terms**.

HSE Legislative and Structural Reforms

Unified HSE Authority Model

KP should legislate a Provincial Mining Safety & Environment Authority (PMSEA) as a sector-specific “single window” regulator. This authority would consolidate the inspection and enforcement functions of the KP EPA and the Mines Inspectorate, eliminating jurisdictional overlap and improving accountability.

Mandatory Financial Assurance Mechanisms

The KP Minerals Sector Governance Act, 2017 (or the proposed 2025 Bill) should be amended to introduce Mining Rehabilitation Funds (MRF). Leaseholders should contribute annually to a ring-fenced fund dedicated to mine closure and land restoration, ensuring abandoned “ghost mines” are rehabilitated without public expenditure

Occupational Safety and Health Act (OSHA) Reform

Shift to Risk-Based Regulation

The **KP OSHA Act, 2022** should be amended to require **Safety Case submissions** for large-scale and high-risk mining operations. This shifts the regulatory burden from inspectors to operators, aligning KP with international best practices.

Digital “Smart Inspection” Systems

Legally mandate **real-time digital incident reporting** through mobile applications with geo-tagging and timestamping. This would reduce desk inspections, improve transparency, and create a province-wide safety risk map.

Managing Federal–Provincial Trade Tensions

Provincial Export Promotion Wing

While exports remain a federal subject, KP can lawfully establish a **Provincial Value-Addition and Export Promotion Council** to work with **TDAP**. This body would advocate KP-specific interests in national trade policy, standards negotiations, and international treaties.

Trade and Standardization: Building the “KP Mineral Brand”

Adoption of JORC Reporting Standards

To attract credible foreign investment, KP should legally mandate **JORC-compliant reporting** for exploration and reserve declarations. Without internationally bankable data, KP’s minerals remain undervalued and high-risk in global markets.

Provincial Certification Laboratories

KP should establish **ISO-17025 accredited mineral testing and grading laboratories**. A legally required **provincial quality certificate** for exports would significantly improve price realization and international buyer confidence.

Community Endorsement and development

Require a Community Endorsement Certificate (CEC) for all titles above a defined threshold.

Establish statutory benefit sharing mechanisms:

- a. District Mineral Development Fund
- b. Community Infrastructure Contribution

Amend the Act and rules to:

- c. Make CEC a legal and binding requirement before final issuance
- d. Create statutory District Community Development Fund
- e. **5% of the district royalty share must be deposited in the fund**
- f. Draft specific rules for District Community Development Fund

2025 Bill includes **local employment and minimum content requirements** but lacks **codified Community Endorsement Certificate (CEC) and benefit-sharing funds**.

Clarification of Merged Districts Licensing Regime

The current Mineral Licensing regime in Merged -District is creating Transitional anomalies, dual legal regimes, and ambiguity. The proposed 2025 does not apply to merged districts rather extends the special arrangement created through the current Mine and Mineral Act of 2017 until 2030. Therefore, for clarity it is recommended that following subsection may be inserted in the relevant section dealing with merged district.

“Any exception or special arrangement applicable to Merged Districts shall stand repealed upon expiry of the transitional period, and the general licensing regime shall apply uniformly thereafter.”

Dispute Resolution Mechanism, Special Court, appellate Court

The current legal framework, Mines and Mineral Bill 2017 and relevant rules have established an appellate tribunal which is headed by the Secretary MMD. The mechanism is simple and effective. The proposed bill of 2025 proposed an Appellate tribunal to be headed by a retired High Court Judge along with two representatives of Law and parliamentary affairs department and two technical persons. Its rules are yet to be made. The recent 14A amendment in CrPC has empowered the Provincial government to notify special magistrates as Mines and Mineral magistrates for quick disposal of disputes. The basic theme of this amendment was that Judicial magistrates are already over-burdened and cannot effectively implement local and special laws. But on the other hand, the proposed bill 2025 defines special court as.

"Special Court" means the existing Court of Civil Judge or Additional Sessions Judge, as specified in Paragraph 9.1 of Schedule-X to try offences under this Act within its respective jurisdiction.

It is duality which must be rectified by defining Special Court as.

“Special Court means the Court of the Special Magistrate mines and mineral duly notified by the Provincial Government under CrPC 14A”.

This will lead to effective implementation Mine and Mineral regulations and trying of offences. The special magistrates work under the control of High Court as special magistrates. Furthermore, the Appellate tribunal may be re-designated as Mineral Appellate Tribunal to be headed by Secretary MMD along with technical specialists.

Institutionalization and Digitalization of Tax Collection management and Royalty

Tax collection be institutionalized to replace outsourcing and that too on modern lines to minimize gaps. Strict implementation of law regarding installation of weighing machine at mining sites be ensured. Amendments in the relevant provisions of the Act and Rules 2017.

The schedule attached to 2017 Act regarding royalty rates be revised on progressive manner rather than fixed or static and a KP Mineral Testing Laboratory be further strengthened to classify minerals into various categories / classes and each class of same mineral be having different thresholds of royalty.

CCI

The CCI be made operational for carrying out her business and to ensure it meetings after every 90 days and provinces be encouraged to process their cases relating to minerals for consideration of CCI and its decision. The CCI be manned with legal and technical experts for optimal effectiveness of the constitutional body. It is relevant to add that there is no such council or forum having basis in the constitution in countries like the US, the Australia and India. The KP province must utilize this forum under Article 154 (3) pro-actively rather than considering it a dormant forum.

Strategic and Rare-Earth Minerals

Constitution of Pakistan, Federal Legislative List part-2, Section 2, does elaborate “Liquids and Substances to be dangerously Inflammable”. This definition must be further clarified through a proviso.

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