

Pakistan's Mineral Sector: Opportunities, Challenges and Future Prospects

OUTLINE

1) Introduction

Thesis Statement:

The mineral sector of Pakistan holds huge potential in terms of economic value and its ability to foster industrial growth and social well-being. However, it also faces formidable challenges in the form of instability, infrastructural gaps and regulatory hurdles. Yet Pakistan can turn this sector into a driver of future growth through policy continuity and long-term planning.

2) The unexplored sector of Pakistani minerals

3) Economic potential of Pakistan's Mineral Sector

Case in Point:- Annual export potential of Reko Diq Mines, Balochistan

4) Human development potential: Opportunities for local population

Case in Point: Employment potential for people of Balochistan.

5) An opportunity to spur local industry

Case in Point: Boosting local capacity for Electric Vehicles production

6) An opportunity for meeting climate change commitments

Case in Point: Can boost local solar panels production

7) An opportunity to attract foreign direct investment (FDI)

Case in Point: Pakistan Mineral Investment Forum (2025)

8) Challenges that need to be dealt with

a) Infrastructural issues in mineral rich areas of Pakistan

Case in point: Infrastructure in North-Western Balochistan and KPK

b) Security condition in mineral-rich zones has deteriorated

Case in point: Rise in terror attacks between 2023-24

c) Power disruption issues

Case in point: Grievances of Barrick Gold Mining Inc.

d) Locals in mineral zones are not getting their due share

Case in point: Issues of locals in Sargodha

e) Regulatory hurdles and policy continuity issues

Case in point :- Contradictory regulatory frameworks in Balochistan, Pakistan

9) Future Prospects : A chance for Pakistan to emerge as a heavy weight in critical minerals and Rare Earth Elements (REE) Production

a) Continuous government support is crucial

Case in point: Continuation of National Mineral Harmonization framework.

b) Placing local population at the core of planning and execution

Case in point: Resolve the reservations of locals regarding Mines and Minerals Act (2025)

c) Ensure a balance between mineral exploitation and environmental commitments

d) Balancing Chinese and USA's interests in Pakistan's mineral wealth

Case in point : Views of Julie Klinger in Book "Rare Earth Frontiers"

10) Conclusion

In the aftermath of President Trump's decision to impose 29% reciprocal tariff on Pakistani imports, Pakistan's Deputy Prime Minister and US Secretary of State held meetings in past few months. USA was suddenly interested in Pakistan's mineral wealth and Pakistan wanted to leverage this opportunity to get tariff reduction. In the end, Pakistan managed to get the tariff reduced to 19% while the US secured a minerals deal. The analysts are both excited for the opportunities that deals like these might unlock for Pakistan and worried about the challenges that lie ahead. Pakistan's mineral sector offers immense economic and human development potential for Pakistani population. Development of this sector can also spur growth of local manufacturing and help Pakistan meet its international commitments on climate change mitigation. However, attaining all of these goals is not that easy. Energy, infrastructure and security challenges are the major road blocks. In addition, a policy framework that balances the demands of local population and the requirements of foreign investors is

also crucial. The future of Pakistan's mineral sector will lie in ~~a~~ careful balancing of conflicting demands of locals and foreign investors, of environment and economy and of the interests of USA and China. Undeniably, the mineral sector of Pakistan holds huge potential in terms of economic value and to foster industrial growth and human development. However, it also faces formidable challenges in the form of instability, infrastructural gaps and regulatory hurdles. Yet Pakistan can turn this sector into a driver of future growth through long-term planning and policy continuity.

The mineral sector of Pakistan has long been dubbed as a treasure trove in South Asia that has the potential to drastically change the socio-economic condition of Pakistan. However, it is sad to see that this sector only contributes 1 percent to Pakistan's GDP (Economic Survey of Pakistan 2024-25, Finance Division, 2025). A look at the mineral profile of Pakistan reveals that there are ninety-two ~~various~~ diverse metallic and non-metallic minerals present in the region. Out of these important metallic minerals are gold, copper, chromium, lithium and antimony. Non-metallic minerals include gypsum, marble, china clay and rock salt. It is interesting that the Pakistan's government is realizing the potential of its mineral reserves amid rapidly changing global scenario, where minerals are becoming the new currency. However, a closer look at the challenges and future prospects is also necessary in order to ensure that this sector becomes a consistent driver of growth in Pakistan.

The biggest opportunity that Pakistan's mineral sector offers is its huge export potential. Pakistan's export sector has been shrinking for many years now and is the main reason why the country faces a balance of payment (BOP) crisis. The addition of raw minerals and value-added mineral products can drastically improve the country's export profile. Consider the Reko Dig mines for example. These mines hold generous reserves of gold and silver and have the ability to generate \$2.8 bn of exportable products annually (US vs. China: The battle for Pakistan's \$8 billion minerals, 4 Daily News, 2025). If that is the export potential of one reserve, just imagine how much economic value can be generated if all reserves of such kinds are utilized.

Mineral sector of Pakistan also holds much in stock for the locals in terms of human development (i.e. employment, education and lifestyle improvement). The mining, refinement, processing and transport of minerals is a work

that involves a lot of human labor, from miners and engineers to refinery workers and transporters. If the personnel for all of these roles are employed locally, the mineral sector can become a major hub for employment of Pakistani workforce. According to an estimate, the Reko dig mines in Balochistan alone can offer 3,500 direct employment opportunities for locals and 1000s of other jobs in the downstream industries (Barrick Mining Corporation, 2025). Moreover, the development of mining sector can also help the development of other infrastructure like schools and hospitals for the local community, thus contributing directly to human development.

Development of mineral sector also offers an opportunity for the growth of local industry. Industry in Pakistan is often dubbed to be 'pre-mature' and is one of the reasons why Pakistan has a poor export profile. Investment in mineral sector, however, will offer a chance to develop industry for value-added products, electronics and electric vehicles. This actually aligns with the

goals set by Pakistan's Electric Vehicles Policy (2025-30). This policy aims at spurring local production of EVs in its second phase (i.e. between 2030-2035).

To achieve local production, availability of Critical minerals and Rare Earth Elements is crucial. Investment in mineral sector can help achieve that exactly.

Another long-term goal that Pakistan's mineral sector can help achieve is meeting the country's climate change mitigation commitments. It is a well-known fact that critical minerals, especially rare earth elements are used abundantly in clean energy technology like EVs, wind turbines and solar panels. If Pakistan manages to procure a consistent supply of these minerals, attainment of its climate goals will become a lot easier. Currently, Pakistan is importing almost 95% of its solar panels from China (Economic Survey of Pakistan, Finance Division, 2025). Local availability of crucial raw materials and technology transfer from China can lead to local production of

color panels in the future.

One of the major goals of the current government of Pakistan is to leverage the country's mineral sector to attract FDI. Efforts like these have also been made in previous years but none of them pushed hard enough. The current government; however, is highly committed to the cause. Pakistan's mineral reserves have been estimated to have an economic potential \$8 billion. To attract investors from across the globe, the government organized Pakistan Mineral Investment Forum between 8 and 9 April 2025. (Ministry of Energy, Government of Pakistan, 2025).

The forum was a huge success as it was able to attract investors from KSA, UAE, China and USA. Government's commitment to this forum in the future can unlock great investments for mineral sector.

Even though the opportunities in the mineral sector are great, there are equally great challenges that make the realization of mineral sector potential harder. Let's take a look at major challenges. By far the biggest hurdle

is the condition of infrastructure in mineral rich zones of Pakistan. This especially true for mineral zones of KPK and Balochistan. For any mineral zone to flourish, the presence of elaborate network of high quality roads, railway tracks and a smooth logistical paths is absolutely necessary.

Even if the mining company agree to setup their entire mining and processing infrastructure from ground zero, they always demand that the local government should provide a network of roads and railway to transport the extracted material to the ports. In Pakistan, CPEC connectivity projects have improved major connectivity networks; however, linking them to mineral rich zones remains a task.

Deteriorating security condition of mineral-rich areas of Pakistan is another major challenge. Although this is not a major concern in Punjab, Sindh and AJK, it is one for the critical mineral zones of KPK, Balochistan and Gilgit Baltistan.

Investors hesitate from investing in such areas where the risk of losses ~~is~~ is higher than potential gains. According to Pakistan Institute for Peace Studies, terrorist attacks in mineral-rich areas of Pakistan have increased by 119% between 2023 and 2024 (PIPS., 2024). In this backdrop, security is a big concern that Pakistani government needs to deal with on priority basis.

Besides security issues, there are power disruption issues too. It is a common fact that any mining operation needs continuous supply of electricity to work seamlessly. However, for Pakistan, this is an issue, not because of power generation issues but because of supply line hurdles and poor transmission infrastructure. Pakistan's minerals reserves mainly lie in remote mountainous and desert areas where loadshedding is the worst (exceeding 16 hours per day). Such conditions greatly reduce the feasibility of mining projects. According to Barrick Mining Corporation (2024), the combo of power disruptions and security issue make Pakistan's mining projects extremely risky.

Another challenge that threatens the sustainability of mineral mining projects is exclusion of locals from the profits that the sector earns. This is a long-standing issue for many projects in Pakistan. While the investors extract minerals to earn profits, the locals of the area only get problems like contaminated water and uncultivable soil. Consider Saindak Gold and Copper Mine for example. China has been operating it for over 22 years now and the share of Pakistan and local population was only 3%. Mining projects like these clearly highlight how mining projects rarely benefit local populations and only serve the interests of the investors.

Lastly, we have regulatory hurdles and policy continuity issues. Regulatory frameworks and policies are the major considerations for the investors when it comes to selecting and investing in a mining operation. Sadly, mineral sector has never been a top priority for the government.

We have seen sporadic efforts being made to promote mineral sector during various tenures but policy continuity was always missing. Multiple regulatory frameworks have also acted as a deterrent to the investors. In Balochistan, for instance, there ^{were} 6 different regulatory frameworks prior to the recent government's effort for harmonization of frameworks. Multiplicity of regulatory frameworks is still an issue in rest of the provinces.

In the past few years, trade wars and disruptions of supply chains (due to disasters and wars) have made the world realize that they cannot rely on few countries for supply of critical minerals. This has highlighted the importance of unexplored mineral reserves, and Pakistan happens to possess some of the most crucial ones. Currently, major international actors are willing to invest in Pakistan's mineral sector. Pakistan has the chance to become a major player in minerals supply chain. However, to transform this opportunity into a reality, there are certain steps that the government

must take to ensure the future.

First, constant governmental attention and support is crucial. For decades the country has seen governments making ambitious plans for mineral sector only to ~~be~~ ^{see them} dumped with change of government. This time around, the government is seriously pursuing the agenda for promotion of minerals sector. One laudable effort of theirs is the National Minerals Harmonization Framework (2025). This framework aims at harmonizing mining laws and regulatory frameworks all across the country. (Leah Boyer Saifullah, Policy Advisor at Critical Minerals Forum, 2025). Frameworks like these need to be backed with long-term policy commitment.

Second, all planning and execution in mining sector should place local population at its core. This is the only way to ensure the sustainability of mining operations. Local population should be involved in negotiation process (at least in the initial stages), allowed to have employment opportunities

and benefit the most from the profits of such operations. A case in point is the recent Minerals and Mining Act (2025). This act has been ^{passed} ~~concluded~~ by the government of Pakistan. However, the people of Balochistan do have certain reservations regarding its provisions. To ensure longevity of the act, it is necessary that government addresses the grievances of the locals.

Third, Pakistan needs to strike a balance between American and Chinese companies who are interested in Pakistan's mineral wealth. While China has a long-time investor in this sector, America is the new client. Pakistan needs to formulate a policy that balances between the interests of both clients while also ensuring the benefits this business reaches the local population. Julie Klinger, in her book, 'Rare Earth Frontiers' opines that in such businesses, the dependency of one party leads to the leverage for the other party. In this case, Pakistan has the leverage and it should use it to do business on its own terms.

Conclusively, it ~~is~~ might be said that Pakistan's mineral wealth is a treasure

Your points are okay but highlight the mineral reserves of Pakistan

2nd largest saltmine

5th largest gold reserves

2nd coal

7th copper rare earth minerals and their importance that will turn into opportunities help unlock foreign direct investment increase revenues and boost local industry. It can spur sustainable development and help Pakistan meet its environmental goals. To achieve all of that, the hurdles that this sector faces need to be addressed. Improving security in mineral-rich areas and infrastructure is absolute necessity. Policy continuity and local consultation are important set steps too. The minerals sector of Pakistan offers promising prospects. A little work in the right direction can make it a driver of growth and prosperity.