

AFGHANISTAN RESOURCE CORRIDOR STRATEGY AND PLAN

Executive Summary

Afghanistan's vast endowment of natural resources remains largely undeveloped. The country's resources include copper, coal, iron ore, gold, oil and gas, and possibly lithium and other minerals. Deposits of iron ore (Hajigak), copper (Aynak) and oil and gas (Amu Darya and Afghan-Tajik basins) carry the greatest potential, but another 11 mineral resources have been identified. Several deposits have already been awarded for development or are in the process of being tendered.

Although resources have the potential to attract some \$10 billion or more of foreign investment over the next decade in optimistic scenarios, the sector will not generate broad development on its own. The extractive sector itself may create only some 10-20,000 jobs by the 2020s. Even when including related infrastructure and the indirect effect in supply chains, it might at most generate 100-125,000 jobs, assuming all deposits are developed and infrastructure built. At current projections, the sector may generate \$700m-1.5 billion in government revenues¹. Although significant, these revenues account for about a third of current civilian aid flows and would not close the fiscal gap. In addition, the impact of these funds would most likely not be maximized without robust governance.

In addition, Afghanistan's mineral potential, while undoubtedly significant, remains highly uncertain: substantial mineral resources remain to be mapped out; volatile commodity prices make projections hazardous; promised resource investments could be delayed; and local, provincial, national and regional political and security developments will also weigh on the sector's development. Multiple risks related to the development of the sector need to be mitigated, and the ability to capture potential upsides developed. This requires flexible and modular planning and design, as well as building institutional capacity and local skills within the Afghan public and private sectors.

Leveraging the extractive industry's investments into viable and broad economic development therefore requires the careful preparation and sequencing of interventions. These interventions include the development of physical and social infrastructure, such as skills, cultural preservation, or organizations for collective action. Adopting a "resource corridor" approach will provide a vehicle to articulate and integrate these interventions.

1. SCOPE AND SCENARIOS

In the short and medium term, interventions should focus on four geographical segments anchored around:

- Hydrocarbons in the north
- Aynak, the coal fields and the Qara Zaghan gold deposit in the East
- The Salang Tunnel/Cross Hindu Kush

¹ These projections are expected to change frequently with fluctuating commodity prices and investment timelines. The most recent World Bank economic updates should be consulted before quoting these figures.

- Energy and steel around Hajigak

In the long term, three additional extensions may be feasible:

- Extending the copper segment southwards
- Extending the northern segment to Herat
- Extending the energy and steel link southeast from Hajigak

A high degree of uncertainty attaches to each of these segments and the corridor overall. This requires a flexible strategy that could adjust to five possible scenarios, as summarized in Table 1.

Table 1: Scenarios and Implications

Scenario	Implication for strategy
“Collapse”: investments are significantly delayed or do not materialize; associated infrastructure investment is wasted.	Investments with a strong rationale independent of resource projects should be prioritized in the short term.
Private investments occur but are enclaves without much spillover benefit.	Heavy focus in the short term on soft infrastructure, to remove constraints in the private sector, especially agriculture related, and strengthen governance
Only a single segment is viable and generates broader development, possibly creating regional inequalities and tensions	Create flexibility by early preparation for investments, building a menu of options to be selected at the point in time when decisions are best made.
Multiple segments are built, but the overall economic environment remains fragile, significantly reducing the corridor’s internal and economic returns	Maintain flexibility by prioritizing investments that are modular and can create new options if the environment changes
Full development of a thriving, well integrated corridor generating broad economic development	

2. AREAS OF INTERVENTION

The corridor approach requires identifying what the resource sector will need in terms of infrastructure, as well as goods and services, and designing public investments in four areas of intervention to leverage that into broader economic growth.

Over the next decade, these areas of intervention are:

A. Infrastructure Priorities

Build or rehabilitate about 1,300km of road links. Each have a strong strategic rationale aside from the resource projects and connect some of the more densely populated regions in the country. This will require \$1.35 billion over 10 years, of which \$750 million is already funded.

Organize effective maintenance of priority roads. Funding is being made available through the initiation of a fuel levy, as well as donor funds. The organizational structures to make use of these funds, such as a Road Authority, need to be designed in detail and established as soon as possible.

Ensure more secure energy supply to Kabul by harnessing Aynak's and Hajigak's electricity needs to improve the public grid. Design should proceed across multiple options until more information is available and an optimum decision can be made.

Develop commercially viable rail links northwards along (i) Mazar-i-Sharif to Andkhoy, (ii) Herat to the Iranian railway system and (iii) Hajigak to the potential coking fields of Dar-i-Suf, and onwards to Mazar-i-Sharif. This should include multimodal railway terminals and an emphasis on safety regulation.

B. Livelihoods

Mining Value Chain

The number of indirect jobs created by large mines range from 1.5 to 3 times direct employment. This means that the resource sector in Afghanistan could potentially generate 45-60,000 jobs, if the opportunity is captured. Many would be skilled or semi-skilled and in urban areas, but this could also include job opportunities for the rural poor.

The resource sector could source from the domestic private sector goods and services that are (i) already available and competitive, and (ii) that could become available once adequate support has been provided. Without access to better information, the domestic private sector may not be able to capture the first opportunity. Closing this information gap requires developing a public-private mechanism that would, for instance, disseminate technical specifications from mines to suppliers, and credible prices and standards from suppliers to mines. Upgrading domestic capabilities to supply more sophisticated goods and services, on the other hand, would require this mechanism to generate more complex business and technical support, as well as facilitate access to finance and risk sharing. Such a program would first be launched on a pilot basis for the Aynak and Amu Darya projects, drawing from similar experiences elsewhere, before being rolled out across the sector. Parallel efforts to match the many skills development programs to private sector needs will also be necessary.

Agriculture and agribusiness

The best opportunity for the corridor to generate inclusive growth lies with agriculture. The ongoing agricultural sector review should clarify the binding constraint to agriculture development.

Downstream development

The potential steel mill connected to the Hajigak development offers the largest single source of job creation—together with the mine and ancillary services, possibly in the tens of thousands—and development opportunities, thanks to maintenance needs and the processing of by-products. This would require a public investment in the construction of a rail connection between Dar-i-Suf and Mazar-i-Sharif. In addition, feasibility studies

are underway for a facility to refine Amu Darya's oil, which could lower fuel costs and improve the balance of payment.

C. Environmental and Social Impact

Water

There is a significant risk that the Aynak project will further deplete Kabul's water resources, which are already strained. Having the mine cross subsidize the city's water supply offers a robust investment strategy. The development of the middle and upper Logar aquifers would, under most scenarios, cover the supply of Kabul, irrigation in the area, and Aynak, but may not be sufficient. The construction of a dam, at one of two nearby sites, would remove this risk, but require \$300-500m investment over 5-10 years. The investment, however, would only be viable if Aynak is integrated into the water system and can shoulder high water-use charges.

Land

Developing a resource corridor will require substantial land acquisition. Yet the country's land management system suffers from a dysfunctional regulatory framework and weak implementation capacity. Legal reform, investments in land verification, and building the government's capacity to manage land acquisition are prerequisites to the development of the corridor's infrastructure and therefore should begin as soon as possible.

Community benefits sharing.

To ensure that local communities benefit from the development of mines, license agreements already require investors to provide benefits such as schools and clinics. Beyond these, a framework to optimize community benefits sharing in collaboration with investors and civil society should inform existing and forthcoming mining projects. Global experience suggests that Community Development Agreements (CDAs) negotiated between investors and affected communities should be central to such a framework. CDAs clarify roles as well as expectations, and allow communities themselves to set priorities.

D. Governance

The governance component should focus on:

- *Strengthening capacity* at all levels, particularly in planning and in the ability to develop open and transparent communication among multiple stakeholders.
- *Continuing to build a transparent and strong budget process* that also addresses the perceived balance of central and provincial shares of revenues
- *Strong contract monitoring*, particularly on volume and transfer pricing, to avoid leakage and ensure that revenues reach the budget. Both the Ministry of Mines and civil society have a role to play but need capacity building.

3. SEQUENCING

Short-term priorities are to:

- Build soft infrastructure
- Initiate preparation for large, long lead-time items

- Develop instruments to address private sector risks
- Quick, small catalytic investments in hard infrastructure

Many of these priorities are already being addressed in programs funded by development partners, and others would be funded by the private sector. But this program requires \$800m-1.2 billion of additional commitments.

Medium-term actions will involve:

- Deciding between several large-scale options on hard infrastructure, and
- Shifting the focus for soft infrastructure to unlocking agriculture and preparing the ground for downstream development cascading from the Hajigak steel mill.

This could require \$1.3 billion in additional public funds.

Long-term priorities will be:

- The completion of the initial segments
- Triggering potential extensions to the South-East
- Deepening private sector development upstream and downstream from resource projects, as well as in agribusiness

Figure 1: Map of Resource Corridor Segments and Extensions

