AFGHANISTAN:
RESOURCE CORRIDOR

TECHNICAL SUMMARY

July 8, 2012
Tokyo Conference

THE WORLD BANK

Islamic Republic of Afghanistan
Ministry of Mines

Australian Aid
Introduction

- Afghanistan’s resource base is large and uniquely undeveloped
  - The country has a portfolio of minerals, from well-known assets in copper, coal, iron ore, gold and oil and gas, to more speculative deposits in those minerals as well as lithium and others
  - Assessing its potential require balance: some write it off as unrealistic or too long-term, or fear the ‘resource curse’ and ‘resource conflict’; others tout it as a panacea
  - In reality, the extractive industry can be both a blessing and a curse. On its own it is rarely transformative. Investments reach maturity only in the long term, but can have impact soon

- A ‘resource corridor’ is a development concept to multiply its impact
  - The concept has implicitly existed for some time: the developed world industrialized along such corridors, such as the coal belt in England, or the iron and steel corridor in Belgium
  - In recent decades resource corridors have been developed in Chile, Mozambique, Zambia and elsewhere

- In Afghanistan, the Government has recognized the importance of such an approach in the National and Regional Resource Corridor Program (NRRCP)
  - This is a national priority program (NPP)
  - It aims to enable and leverage private sector investment through sequenced, prioritized investments across four dimensions (infrastructure, livelihoods, governance, and environmental and social impact)
  - The following pages lay out the results of work undertaken in the first half of 2012 to inform the first investment program and implementation of the resource corridor
Economic growth
Agriculture and resources key drivers

- Economic growth is projected at 4.9% annually between now and 2025
- With progress in agriculture and resources, however, it could increase to 6.7% in the same period

High case sector contributions to growth
Percentage points

- Agriculture: 3.0
- Mining: 1.2
- Opium: 0.4
- Other industry: 1.3

- Agriculture: 2.1
- Mining: 1.6
- Opium: 0.2
- Other industry: 1.2

Note: Opium assumptions and projections are based on latest trends by UNODC
From “sector” to “corridor”: leveraging resource investments for broader growth

Resource sector: large but not transformative

• Mining revenues not sufficient to compensate for anticipated decline in aid
• Direct local job creation will be modest
• The bulk of these jobs will be semi- or fully skilled labor

Resource corridor: leveraging resource sector for transformation

• Seek public and private sector synergies to prioritize investments and actions
• Sequence and combine hard and soft interventions to maximize impact, job creation
• Multiply job creation in supply chain, downstream and in related industries
• Wider impact unquantifiable but transformative

Supports GoA NPP “National and Regional Resource Corridor Program”
Resource Corridor: support implementation of NPPs

- Manage expectations and risks
  - Recognizing risks: delays in mining investments, corruption and poor governance, security, government capacity
  - Expectations must be managed: short-term results will be real but modest, while most impact will be felt in second half of transformation decade
  - Work complements regional programs and integration

- Sequence
  - Do not lock into decisions that can be taken later ("flexible design")
  - Sequencing matters for incremental public investments, complementing private investments

- Prioritize
  - Do not rush into public investments that might be better funded by others (private sector) later
  - Short-term investments and actions must be feasible on their own merits (i.e., resources help prioritize investments, not validate them)

This is long term:
Government, private sector, development partners have to stay the course
A ‘resource corridor’ is a sequence of investments and actions to leverage a large extractive industry investment in infrastructure, goods and services, into viable economic development and diversification along a defined geographic area.
Four dimensions for resource corridor approach (South-East example, anchored to Aynak)

**Governance**
- Public financial management and transparency for Aynak revenues
- Build national and local capacity to plan and implement corridor

**Environmental and social impact**
- Implement community development agreements around Aynak
- Strengthen land acquisition
- Accelerate archeological excavation
- Further testing on local water impact

**Infrastructure**
- Water solution for Kabul
- Effective maintenance for key roads
- Build / upgrade key road segments
- North-South transmission line, Kabul power ring and ‘grid code’

**Livelihoods**
- Enterprise development and skills matching multiplies job creation
- Agriculture and agribusiness integration for inclusiveness
Overall corridor: short- and medium-term segments with potential extensions in the long term

North-West extension (copper/hydrocarbons)

North-East extension

Nama-Shaida

Syr Dara

Hajigak

Steel & energy

Cross Hindu Kush

Zarkhashan

Aynak

Southern copper segment

South-West extension: rail for large-scale Hajigak exports – needs several positive geopolitical developments

First segments built around most advanced deposits, where political and security uncertainty is also lowest

Northern hydrocarbons

South-East copper

Cross Hindu Kush

Steel & energy link

Long term options

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Examples of short- to medium-term investments in two segments of the corridor

<table>
<thead>
<tr>
<th>Action</th>
<th>Cost</th>
<th>Public / private</th>
<th>Funding status</th>
<th>Years</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Northern hydro-carbon segment</strong></td>
<td></td>
<td></td>
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<tr>
<td>Maintenance of the Sheberghan-Mazar road</td>
<td>~$1m p.a. for first five years</td>
<td>Public</td>
<td>Unfunded</td>
<td>2013-2017</td>
</tr>
<tr>
<td>Construction, operation of multimodal rail terminal at Mazar-i-Sharif</td>
<td>~$15m</td>
<td>Private / PPP</td>
<td>Unfunded</td>
<td>2013-2015</td>
</tr>
<tr>
<td>Sheberghan gas and power</td>
<td>$200-400m</td>
<td>PPP</td>
<td>Partially funded</td>
<td>2013-2017</td>
</tr>
<tr>
<td>Mid-scale (~15k bpd) refinery at Mazar-i-Sharif</td>
<td>~$80-120m</td>
<td>Private</td>
<td>Multiple investors expressed interest</td>
<td>2013-2015</td>
</tr>
<tr>
<td>Railway from Mazar-i-Sharif to Andkhoy (with spur to Amu Darya)</td>
<td>$240m</td>
<td>Public</td>
<td>ADB committed</td>
<td>2015-2017</td>
</tr>
<tr>
<td><strong>South-Eastern copper segment</strong></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Strengthening the capacity of the land authority (ARAZI)</td>
<td>~$1-5m</td>
<td>Public</td>
<td>Partial funding</td>
<td>2013-2017</td>
</tr>
<tr>
<td>Maintenance of road segments</td>
<td>~$3m p.a.</td>
<td>Public</td>
<td>Partial funding</td>
<td>2013-2017</td>
</tr>
<tr>
<td>Mining supply chain investments (e.g., drilling services, foundry)</td>
<td>~$40-50m</td>
<td>Public / Private</td>
<td>Unfunded</td>
<td>2013-2017</td>
</tr>
<tr>
<td>Kabul water system (e.g., including Shatoot dam)</td>
<td>~$300m</td>
<td>Public</td>
<td>Unfunded</td>
<td>2015-2020</td>
</tr>
<tr>
<td>Power system, e.g., Ishpushta to Kabul and later via Zarkhashan to Kandahar</td>
<td>~$300-400m</td>
<td>Private / Public / PPP</td>
<td>Partially unfunded</td>
<td>2013-2017</td>
</tr>
</tbody>
</table>
These scenarios will unfold over time: first priorities are robust to risk

**Decision factors, 2015-16**
- Political stability and security
- Results of exploration
- Timing of mine development
- Commodity markets
- Regional integration factors

**2012**

**Priorities 2012-14**
- Soft infrastructure investments
- Priority road construction and maintenance works
- Institutional and regulatory reforms in hard infrastructure
- Design and land surveys to prepare for hard infra options (power, road, rail, water)

**2015**

**2017/18**

**Upside actions**
- Trigger hard infra investments
- Expand soft infra programs
- Prepare next wave of hard infra

**Downside actions**
- Pause hard infra investments dependent on resources
- Selectively pursue actions by geography and sector

**2020**

**Decision factors, 2017-18**
- Political stability
- Commodity markets
- Timing of mine development
- New discoveries
- Completion of investments
## Overall investment scenarios (for all segments)

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Triggers for scenario</th>
<th>Investment (USD bn, 2012-25)</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full flowering</td>
<td>• Positive exploration results</td>
<td>Public 1: 4-4.5</td>
<td>Private 2: 14-16</td>
</tr>
<tr>
<td></td>
<td>• Positive commodity markets</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>• Conducive regional politics</td>
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<tr>
<td>Reduced set of segments</td>
<td>• Disappointing exploration results for some deposits</td>
<td>Public 1: 3.2-3.5</td>
<td>Private 2: 8-8.5</td>
</tr>
<tr>
<td></td>
<td>• Mixed commodity markets</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Turbulent regional politics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delayed or constricted growth</td>
<td>• Pvt sector investment delays</td>
<td>Public 1: 2.8-3^3</td>
<td>Private 2: 2.5</td>
</tr>
<tr>
<td></td>
<td>• Falling commodity prices</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>• Instability</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collapse</td>
<td>• Governance</td>
<td>Public 1: 0.05-0.5</td>
<td>Private 2: 0.6</td>
</tr>
<tr>
<td></td>
<td>• Instability</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Commodity price collapse</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 Includes already allocated funds and provisions for O&M spending over the period  
2 Includes private spending on public good infrastructure (e.g., power plant)  
3 Includes spending on infrastructure whose economic value is independent of the resource investments
Prioritized needs for immediate public funding to develop resource corridor

<table>
<thead>
<tr>
<th>Size of investment</th>
<th>Status of funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>$500m</td>
<td>Fully, securely funded</td>
</tr>
<tr>
<td>$100m</td>
<td>No funding committed</td>
</tr>
<tr>
<td>$1m</td>
<td>Fully, securely funded</td>
</tr>
</tbody>
</table>

- Water solution for Kabul
- North-South transmission and Kabul ring
- Doshi-Bamyan upgrade and Salang Tunnel rehabilitation
- Andkhoy-Herat road*
- Mazar-Andkhoy rail*
- Bamyan-Maidenshar road*
- Local private sector & skills
- Mazar terminal
- Community development agreements
- Jal.-Tork upgrade and maintenance
- Priority road maintenance
- Land acquisition policy and process*
- Archaeology*
- Capacity building of MoM, MoF, etc.*
- Contract monitoring*

*$800m-$1.2bn of investment in priorities not securely funded

* Funded by Asian Development Bank, UK DFID, US Government, World Bank, and other development partners and Provincial Reconstruction Teams
Conclusion

- Agriculture and resource corridor will be the key drivers of growth and poverty reduction. Private investments and regional integration are vital.

- Opportunities along the resource corridor are real and need both public and private sector investment and action.

- There will be significant challenges and risks, particularly around governance and the timing of the resource investments. Many of these are being addressed, by public, private and, in some cases, joint action.

- The first actions identified are realistic about risk and robust to it, generating spill-over benefits now and setting up options for later.

- While it is important to retain a sense of balance, the resource corridor can be a powerful means to avoid enclave investments, generate more diversified growth, raise livelihoods and create jobs.

- For that to occur, action and investment must accelerate now.
For further details

- Further information regarding specific segments, sectors, investments and actions are available on request.

- Queries should be directed to the NRRCP Secretariat (info@nrrcp.gov.af) or the World Bank Afghanistan (azia@worldbank.org).