My interest in Afghanistan resources since 1972.

Took only 42 years to do this book.
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Book Chapter 15.
Resource corridor development

• $1 – 3 trillion of resources in the ground.
• Scattered throughout the country.
• Resource-corridor idea is to link resource development to integrated mining production & transportation to smelting/refining & sales.
• While at same time improving environmental safety, and local development, job production, social welfare, etc.
Overall corridor: short- and medium-term segments with potential extensions in the long term

- Northern hydrocarbons
- North-West extension (copper/hydrocarbons)
- Cross Hindu Kush
- Steel & energy
- South-East copper segment
- South-West extension: rail for large-scale Hajigak exports – needs several positive geopolitical developments
- South-East extension: depends on scale of copper and lithium deposits (power needs, for example could be leveraged for South-East Power System)

First segments built around most advanced deposits, where political and security uncertainty is also lowest
Flow chart and Classification of Data and Information for Each Mineral Area of Interest

Total Information Package Compiled by USGS

Data packages + contractor data + other reports and data = Information Packages

Processing of Data Packages and Information Packages to produce Bidding Packages

US Geological Survey developed
# Overall investment scenarios (for all segments)

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Triggers for scenario</th>
<th>Public</th>
<th>Private</th>
<th>Total</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full flowering</td>
<td>• Positive exploration results</td>
<td>4-4.5</td>
<td>14-16</td>
<td>18-20</td>
<td>Private sector growth and job creation taking off across country</td>
</tr>
<tr>
<td></td>
<td>• Positive commodity markets</td>
<td></td>
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<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>3.2-3.5</td>
<td>8-8.5</td>
<td>11-12</td>
<td>Private sector growth and job creation in key parts of the country</td>
</tr>
<tr>
<td></td>
<td>• Mixed commodity markets</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>• Turbulent regional politics</td>
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<tr>
<td>Delayed or constricted growth</td>
<td>• Pvt sector investment delays</td>
<td>2.8-3</td>
<td>2-2.5</td>
<td>4.5-5.5</td>
<td>Long-term fiscal targets met with some job creation</td>
</tr>
<tr>
<td></td>
<td>• Falling commodity prices</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Instability</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collapse</td>
<td>• Governance</td>
<td>0.05-0.5</td>
<td>0.6</td>
<td>0.7-1.2</td>
<td>Investments needed anyway ready to be made at recovery</td>
</tr>
<tr>
<td></td>
<td>• Instability</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Commodity price collapse</td>
<td></td>
<td></td>
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<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
Book Part III. Afghanistan Environment & Development

• 16. Afghanistan environment and development issues

• 17. Afghanistan environmental degradation

• 18. Afghanistan environmental protection

• 19. Water and climate change (old treaties & incipient water wars)
DEVELOPING AFGHANISTAN’S RESOURCE CORRIDORS IN AN ENVIRONMENTALLY SOUND MANNER

John F. (Jack) Shroder Jr.

In the September 2013 issue of EARTH, I wrote about the idea of building resource corridors in Afghanistan, through which the country’s rich resource base could be used to lift its people out of poverty. The article garnered a vocal response from readers, some of whom suggested that mineral development is not what Afghanistan needs. Questions were raised about the potential for environmental destruction and whether resource corridors could actually result in the long-term stable incomes and tribal cooperation needed to solve the interminable war. These are good questions to be asking.

Environmental degradation in Afghanistan has been rampant for a very long time. The scientific community, the United Nations, the World Bank and other independent foreign and local watchdog groups have documented the country’s environmental problems: surface and groundwater diminution and contamination, soil salinization from long-term excess flood irrigation, soil erosion from overgrazing and watershed mismanagement, deforestation, biodiversity and habitat loss, widespread desertification, urban and industrial pollution, and the poisonous residues of warfare.

Recognizing that, as well as recognizing that the path forward will mean more development, the Afghan government has enacted strong new environmental laws and procedures and established new watchdog agencies to exercise oversight on environmental and social issues. In order to finance these environmental protections and remediation efforts, however, Afghanistan is going to need to leverage its natural resources. But whether Afghanistan can ever rise from being a failed state will depend on whether the newly recognized rich mineral resources are exploited in environmentally benign ways.

In the absence of robust remediation of existing environmental problems and precautions to prevent further damage, resource extraction can obviously be problematic for the environment. Fortunately, in Afghanistan, the recent recognition of environmental issues has led to the creation of new legal frameworks directed at combating the expected environmental despoliation that will come with any sort of resource corridor development. The new National Environmental Protection Agency, which has begun training personnel and developing testing mechanisms to solve serious problems, is a good start.

In addition, the independent group Integrity Watch Afghanistan is doing an excellent job of focusing attention on environmental issues and advising the Afghan government to the Equator Principles—a set of standards used to determine, assess and manage social and environmental risk in the financing of resource extraction projects. These principles, which were instituted in 2003 at the behest of the World Bank for use in countries with developing or newly emerging legal frameworks, have become a worldwide industry standard for environmental and social risk management.

The goals in Afghanistan are alleviating poverty, promoting sustainable development and improving the lives of people through the sustainable use of natural resources. If these things are to happen, the state has to be stable enough to allow mining to proceed. Without the protection of Western Coalition troops, the existing Afghan Army and police forces must be capable of holding their own against the Taliban opposition. If they are not, Afghanistan may fail, allowing the Taliban or even neighboring states to control resource extraction, neither of which would benefit Afghanistan’s environment or its people.

Given the country’s prior environmental degradation and past corruption, the responsible extraction of resources is perhaps a doubtful proposition. This is a tall order, but it is conceivable if sufficient funding is available from resource extraction. In addition, sustained financial assistance and technical support from the international community will be needed, as will transparency in resource deals.

If all of that can be achieved, natural resource management—the institutions, policies and practices that govern the land, water, forests, rangeland, minerals and hydrocarbons—could act as a form of conflict resolution and peace building. The alternatives—remediation and continued meager attention to problems of illiteracy, drug addiction, high birth rates, terrorism among warring sects and environmental despoliation—do not offer any reasonable options for the future of Afghanistan.

To not attempt to give the Afghan people a way to overcome their present state is to admit defeat at the hands of war, environmental despoliation and overall destitution—and that is not a pragmatic viewpoint from which to try to fix anything, environmental or otherwise.
Kabul Polytechnic University

• Tasked with getting instruction in geology, mining, & water up to modern standards.

• To meet new demands for resource-corridor development

• DOD Task Force on Business Stability Operations.
The good idea in Washington

The boots on the ground

TFBSO MINERALS TEAM

USING GOOD MINERALS
TO FIGHT BAD PEOPLE
KPU & faculty

UNO Project house in Kabul since 2001
UNO Transboundary Water Projects

• Lounsbery Foundation - Kabul River drainage

• U.S. Institute of Peace – Amu Darya drainage

• Funding to facilitate negotiations on transboundary water resources

• Focus now on hydro-hegemony & raising water-cognizant capacity (WCC)

• Wrote new Hydro Primer & Hydro-Hegemony texts for Afghans
The major river systems of Afghanistan (Titley, 1979). Figure 9.
Transboundary water treaties

• All old,

• Out of date,

• With governments that no longer exist.

• New treaties are needed but negotiations are avoided.
New hydro-hegemony ideas

- Domination over water requires 4 pillars:
  - Geographical position
  - Material power
  - Bargaining power
  - Ideational power

- Afghanistan water-cognizant capacity (WCC) being raised to get ready for eventual treaty negotiations.
Book Part IV. Afghanistan in Future

• 20. Pessimistic scenarios – Historic reasons for incessant war, plus limited time & neighbors want resources.


But reality intrudes
Umar Sheraz
Senior Policy Analyst
COMSTECH Secretariat
(OIC Standing Committee on Scientific & Technological Cooperation) Islamabad
Afghanistan capacity-building needs & fears

• 36 years of war have destroyed the educational system.
• Strong lack of trust by Afghans against the neighboring countries, who past or present have delivered violence into Afghanistan.
• Most fear of Pakistani colonialist machinations.
• Next most fear of Iranians.
• Third-most of ex-Soviet ‘Stans’ to the north.
Foreigner-driven conferences on resources

• Resolving water issues seen as ill-informed,

• favoring technical answers,

• rather than understanding local water arrangements or treatments,

• or political or economic solutions.
Afghans fear that foreigner-driven water conferences

• Will have implications for disputed borders,

• That bordering neighbors will overwhelm Afghans with superior scientific expertise, &

• Set up Afghans for failure in later talks.
A high-level official has said:

- **Might makes right** regarding bilateral water relations.

- Scientific capacity & **Water-Cognizant Capacity** must be built first,

- To better negotiate from a position of strength at a later time.

- Afghans are not ready to negotiate yet, even between scientists.
Afghanistan stalling for more time

• It is in the **short-term interests** of Afghanistan to hinder progress on water negotiations.
• Once upstream dams are funded and built, downstream riparians will not have much to say.
• Long-term interests are unfortunately put off for apparent short-term reward.
• Long-term local good relations and shared futures are not seen or much understood.
Afghans are aware that:

• US Embassy, World Bank & several friendly countries are pushing for water negotiations,

• World Bank will withhold all development money unless negotiations are held.

• But Afghan government will not allow water discussions by anyone below Presidential Cabinet level.
Solutions for the Afghans

• Ministers forbidden to discuss water issues yet.

• The policy of the next president – diplomatic, technical, academic – will determine new approaches to water.

• Must wait for the new post-Karzai government to consolidate its rule.

• Might be ready to discuss water issues after 1-3 year capacity-building phase.
Water not zero sum game

• Cooperation is only long-term option for human survival & prosperity.
• Cooperation in human history increases range & variety of payoffs.
• Short-sighted Afghan bureaucracy bases noncooperation in water issues on old and outmoded behaviors.
• Far more to be gained in regional cooperation in resource-corridor development than insular grasping at ever more limited water supplies.
Conclusion

• Too little – too late?

• Will Afghanistan fall off a cliff of climate change?

• Time is wasting – will any sort of success be possible or will muddling along prevail?

• With unpleasant consequences or will Afghanistan prosper?

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