Afghanistan’s Trans-Boundary Waters – Role in Regional Stability

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Afghanistan’s River Basins

1. **Amu**
   - 1800km Boundary with Tajikistan, Uzbekistan & Turkmenistan,
   - Tributaries: Kokcha, Kunduz, Punjab, Khanabad and Aab-i-Rustaq
   - 57% of surface water, Provides for 3 million population, Regulated as per MoU with Former Soviet Union

2. **Kabul-Indus**
   - Flows to Pakistan
   - Tributaries: Kabul, Panjsher, Kunar, Gomal, Margo
   - 26% of surface water, provides for 7 million population, no regulation

3. **Helmand**
   - Flows to Iran, 1973 Treaty!
   - Tributaries: Adraskan, Fara Rod, KhashRod, Khuspas, Kajrod, Band-i-Kajaki, Musa Qala, Arghandab
   - 11% of surface water, provides for 6 million population
Afghanistan’s River Basins

1. Hariroad
   - Flows to Iran, Turkmenistan, No Treaty!
   - Tributaries: Murghab, Kashan-Kushk, Hariroad
   - 4% of surface water, provides for 2 million population

2. Northern (not Trans-boundary)
   - Consists of Balkhab, Sherin Tagab, Tashqurghan, Aab-i-Safaid
   - 2% of Surface Water, provides for 3 million population
   - Source: Afghanistan Atlas of Watershed
## Afghanistan’s River Basins

<table>
<thead>
<tr>
<th></th>
<th>Amu</th>
<th>Kabul</th>
<th>Hariroad-Murghab</th>
<th>Helmand</th>
<th>Northern</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Availability (m$^3$/capita)</td>
<td>7,412</td>
<td>2,889</td>
<td>1,777</td>
<td>1,581</td>
<td>676</td>
</tr>
<tr>
<td>Annual discharge billion m$^3$</td>
<td>22</td>
<td>20.76</td>
<td>3.06</td>
<td>9.30</td>
<td>1.88</td>
</tr>
<tr>
<td>% of water use</td>
<td>24</td>
<td>25</td>
<td>42</td>
<td>58</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: NDHR
Surface water resources potential in BCM per year

- **Amu Darya**: 22 BCM
- **Helmand**: 9.3 BCM
- **Hari Rod-Murghab**: 3.06 BCM
- **Kabul/Indus**: 20.79 BCM
- **Northern**: 1.88 BCM
- **Total**: 57 BCM
Source: Water availability (m3/capita/year) in five river basins (Favre & Kamal, 2004)
Context – Water Resources

- Afghanistan’s Water potential is 75,000 million cubic meters.
- Afghanistan is said to have one of the lowest water retention and utilization capacity, less than 1/3rd (less than 30%) of its waters due to insufficient infrastructure for water management.
- Climate change is visible in precipitation and temperature regime resulting in prolonged and more frequent droughts and floods.
- There is a 25-30 years data gap on water resources (1980-2006...) So all data dates back to 1980 and before.
Water resources potential and using present and future balance

Regional Context

- 4 of the 5 river basins are trans-boundary in nature (all except Northern)
- Afghanistan shares its waters with the Central Asian Republics in the north, Iran in the west and Pakistan in the south/ east
- Afghanistan has only one water sharing agreement with Iran on the Helmand river basin.
- There are few indications on water sharing between Afghanistan and Ex-Soviet Union - MoUs
- Water results in conflict, (2\textsuperscript{nd} major cause of conflict at community level-NHDR)
- Provinces close to the rivers suffer from flooding and drought due to poor water management and weak or non-existent water infrastructure
Legal & Policy Context

- Kabul Understanding - Strategic Framework for the Water Sector
- Afghanistan Compact
- Afghanistan National Development Strategy
- Afghanistan Water Law/ Water Sector Policy
- National Priority Program: (National Waters and Natural Resource Program, National Energy Supply Program)
- The National Environmental Law (conservation, protection and improvement of the country’s environment)
- Afghanistan Drafty Trans-Boundary Policy (under consideration)
Context – Impact of Poor Water Development & Management

- Under-Developed Economic Infrastructure
  - Agricultural economy (78.6% labor force, 70-80% of GDP, 2.2 million hectares out of 7.9 million hectares cultivated only)
  - Lack of precipitation leads to up to 50% decline in agricultural production (2008)
- Low National Revenue Generation Capacity
  - Extreme dependence on international community
  - Water can generate enormous revenue
- Ineffective Legal, Policy and Institutional Context
- Almost non-existent regional cooperation: The Water Agreement with Iran (Helmand River Basin) is limited to water sharing.
Context – Impact of Poor Water Development & Management

- Environmentally Hazardous and Unsustainable Development
  - Inadequate water development and lack of attention to its impact on climate change.

- Alarming Population Growth
  - Expected decrease in water availability by 50% in the next 40 years, in the face of increased population: Afghanistan 65 million, Pakistan 291 million, Iran 100 million by 2050

- Potential for Regional Conflict

- Lack of Sufficient Focus on TBW Development and Management
  - Water is a sub-sector in practice, Less-Attended!
Policy Recommendations

- Policy, legal, institutional and infrastructural Reform at national level, prioritizing regional cooperation
- Build capacity and establish strong knowledge base to address the data gap
- Move towards regional cooperation, hydro-diplomacy and compliance to international conventions
- Promote long term and regional sensitive program approach
- Engage civil society, academia, private sector, media and research organizations extensively (at national and regional level)
Thank you!