

**WATER RELATED STRATEGIC CONCERNS  
AND THREATS IN AFGHANISTAN**  
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*Water is good, more water is better...*  
(Afghan proverb)

**Importance of Water**

In GOA (Government of Afghanistan) and NGO strategic planning documents, Water is universally recognized as a key, and usually as the key to Afghanistan's future.<sup>1</sup> Water has the same urgency as security, energy and roads, and it is even more critical to the long-term stability and economic development of the country. Water shortages, internal water conflicts, and international water disputes will increase and become more serious, with destabilizing consequences, unless effective programs are implemented.

MEW (Ministry of Energy and Water) documents state that 85% of the population is involved in irrigation dependent agriculture, 98% of all water diverted from the rivers is used by agriculture, with 60% or more of that water lost to seepage and poor on-farm efficiency.<sup>2</sup> These same irrigation systems also provide drinking water to the vast majority of the population.

Improving irrigated agricultural production and livelihoods is critical for maintaining social order. Additional strains on land and water are resulting from the 500,000 refugees that will be resettled in Afghanistan this year, adding to the 500,000 refugees that returned last year.

Five major rivers originate in Afghanistan and flow into the surrounding nations, and international water conflicts are looming with these down-stream users. Iran is eyeing the Helmand River and wants to revise the existing understanding of the minimum amount of water that Afghanistan must allow to flow into Iran. Pakistan uses most of the water in the Kabul River. Additional diversion/use of water from these rivers in Afghanistan would spark international disputes. A similar situation exists with Uzbekistan and Turkmenistan and the Amu Darya River.

Internal Afghan conflicts between up-stream and down-stream water users are increasing. These disputes are beyond the capability of the traditional tribal systems to deal with, and may lead to regional conflicts within Afghanistan. For example, Kabul is planning a dam on the Panjshir River to help meet the growing demand for municipal and industrial water in the city, while Kapisa Province is planning on using the Panjshir to supply water for refugee resettlement and expansion of irrigated land for economic development.

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<sup>1</sup> Examples: Regional Economic Cooperation Framework, 2005; Interim Afghanistan National Development Strategy, 2006; The Water Sector Development Plan, 2005-2015, Ministry of Energy and Water; United Nations Development Assistance Framework for the Islamic Republic of Afghanistan 2006-2008).

<sup>2</sup> On-farm efficiency includes the type of technology and water delivery methods, and management of the water by the farmer in terms of the amount of irrigation, timing and duration.

Hydro-power generation water requirements differ from that of irrigation in that water must be supplied in constant amounts over the entire year, while irrigation needs to store water. Thus, any hydro-power development must consider the seasonal demands of agriculture to avoid conflicts between the two uses.

### **2006 – Critical Year for Decisions**

Over the next 14 months, many of the water projects first initiated by NGO's will be winding down, coming to the end of their project lives. Generally, these projects were implemented as an emergency response and not a part of an overall strategic plan and coordinated effort. Few new programs and projects have been announced as of the current date, but new programs are expected.

USAID has spent only a small fraction of our total funding on water, and that amount of money spent has been declining: from 3% in 2004 to 1 % in 2005 (if the proposed reallocation of funds is implemented)<sup>3</sup>. USAID is proposing to eliminate all water funding in 2006.

Not being actively engaged in Water will affect the ability of the US to be a major player in other trans-boundary issues, since Water is a key limiting factor affecting the prosperity and economic development of all the surrounding countries. In addition, it will be difficult for us to exert influence over other donors. Thus, future funding from NGO's will likely continue to be a hodgepodge of unconnected activities that will be ineffective at dealing with the strategic threats from Water.

### **Unique Capabilities of the United States**

Afghanistan has many similarities in water resources and agricultural production possibilities as the US, with the terrain and climate of the Western United States very similar to Afghanistan. The US is capable of providing specific skills and technical resources particularly applicable to Afghanistan that other nations simply do not possess. The US can also assist in developing water authorities and watershed management plans, which will regulate water usage and provide the central government some control in the provinces.

We can draw on a large resource pool, which includes expertise from the land-grant university system, Federal and state agencies, and the private sector (i.e., "anyone can build roads, but no other country has the expertise and experience in water as the US"). Many donor nations and organizations are active in constructing water resource projects but there is a recognized vacuum in coordination and expertise to guide management of the scarce water resources.

The US already has existing relationships with all donor countries and agencies, which make the US the natural coordinator and catalyst for joint strategic planning and implementation. However, this does not mean providing all of the water funding that will be required. For example, the many dams and flood control structures needed are more suitable for funding from organizations such as the World Bank and the ADB. However, the US has unique capabilities in working with the Afghans in the planning for these water works and dealing with serious problems such as siltation.

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<sup>3</sup> Approximate money spent on Water programs: 2003 - \$40 million out of \$1.4 billion; 2005 - \$13 million out of \$1.4 billion.

The United States is seeking stability in Afghanistan. The key to establishing stability is a functioning economy and government. Afghanistan's economy is agricultural based, and the majority of the domestic and export crops depend on having sufficient water supplies for irrigation. ***Water is scarce in Afghanistan, and whoever controls the water controls the country.***

Water resource management in Afghanistan involves balancing water demands for irrigation, hydropower, environmental, water supply, sanitation, groundwater, while also considering international treaties and flood control issues. This will involve creating national water policies, regional watershed management plans, and at the local level, farmer water rights. The ancient Afghan Mirab system is not capable of handling the complexity of issues now faced in Afghanistan and the ever increasing demand for water.

### **Water-related Strategic Threats in Afghanistan**

Regional conflicts over water supply, which could also affect energy and other agreements

- Short term: Iran and the Helmand River (Iran has raised the issue of minimal flows, and the first bi-national talks were held in Dec 2005)
- Looming: Pakistan and the Kabul River; Uzbekistan, Turkmenistan and the Amu Darya
- Other rivers that flow into Iran and Turkmenistan

Rapid and uncontrolled exploration of groundwater currently underway

- No data is available on the extent, sustainable yield and recharge mechanisms
- Falling water tables reported nation-wide
- Depletion of groundwater will have widespread impact on water supply for municipal, industrial and agricultural sectors; however, the impact would be more devastating on the expanding cities and new industries
- Depletion of local/regional aquifers could create internal social instability and will increase competition for surface water

Conflicts between up-stream and down-stream water users widely reported

- No formal mechanism in place for conflict resolution.
- Concern is regional fragmentation over water supply
- Water supply for hydropower and releases for irrigation are interdependent and must be jointly developed and managed.

Eighty five (85%) percent of the population is engaged in irrigation-dependent agriculture

- Economic development is a long-term endeavor; majority of population will need to remain in rural areas for orderly economic and social development
- Water allocation and supply conflicts will increase with rehabilitation of irrigation systems and expansion of agricultural production for economic development
- Hydro-power and value-added processing will increase water demand and conflicts
- Returning refugees are putting additional strains on water supplies and land resources

### Water laws and regulations

- Traditional water management mechanisms are breaking down
- No mechanisms in place for settling water disputes at the river basin or watershed level
- Serious internal conflicts will occur over allocation of surface and ground water once laws and regulations are enacted
- Poorly structured water laws and regulations will strain the developing judicial system of Afghanistan

### Reoccurring drought

(Lack of rainfall and snow so far this season may indicate that the drought is returning)

- Drought intensifies conflicts over water, particularly between up-stream and down-stream water
- Groundwater depletion accelerates, leaving cities and industries vulnerable
- PR problems for the US if drought occurs and we are not active in Water

### **Recommendations**

- The US should remain engaged in water in Afghanistan since it is critical to the long-term internal and external stability of the country
- The US should increase funding for Water resources
- At a minimum, the US must ensure that a critical mass of water experts, engineers, economists and policy makers are engaged in and outside of the Afghan government and the US mission
- Funding for data collection and water resource assessment programs should be continued and increased
- The US should work closely with the Afghan Government in planning and coordination with the international community in development of a Water strategic plan and in cooperative project implementation
- The US should continue to fund key activities and programs, and identify and provide resources for filling holes in the total international Water effort
- The US should examine options for improving the programs and capabilities of the PRTs (Provincial Reconstruction Teams) for addressing critical water issues