AFGHANISTAN AND TRANSBOUNDARY WATER MANAGEMENT ON THE AMU DARYA: A POLITICAL HISTORY

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Afghanistan is a key Amu Darya riparian state. Its fellow riparians have established water management structures, which have not included Afghanistan or recognised its interests however. This paper explores why this is the case. Regional power politics and antipathy towards cooperation, institutional inertia and self-interest, Afghanistan's slow emergence from conflict, and its present limited water demands probably explain Kabul's isolation. Its participation in these structures could help it and the region's economic and environmental development and encourage cooperative processes. Afghanistan's exclusion is not at present a major political, security or environmental problem however.

1 Introduction

Two major events transformed the political geography of the Aral Sea Basin (ASB) region a decade apart. The year 1991 saw five new independent states established following the collapse of the USSR. These post-Soviet republics created their own inter-state management of the Aral Sea Basin (ASB) including its rivers. Afghanistan was not party to the process. The transition did not herald a period of greater inter-state cooperation and was not entirely positive for water management. 2002 saw the removal of the Taliban government in Afghanistan. This was the obvious opportunity for the other riparians to recognise Afghanistan's transboundary water rights and responsibilities. The literature on both Afghanistan and regional water issues of the time reflected this expectation (Fuchinoue, Tsukatani & Toderich, 2002; Rubin & Armstrong, 2003). This did not happen however. The situation has remained relatively static since then. Consequently, in terms of regional water cooperation, both seismic shifts in regional politics have been opportunities missed.

This paper examines how and why Afghanistan has remained essentially excluded from the Amu Darya management structures despite these political changes. It will first briefly outline water supply and demand on the Amu Darya. It will then analyse the historical and contemporary ASB/Amu

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Darya regional water agreements and Afghanistan status in these. It will conclude by examining the possible reasons why Afghanistan has to a large extent been excluded and ignored.

2 The Amu Darya: Hydrological Background

The Amu Darya river is regionally important. It is the largest river in Central Asia (i.e. the five post-Soviet republics) and the second largest in terms of flow in Afghanistan. It is shared by six states, Afghanistan, Kazakhstan, the Kyrgyz Republic, Tajikistan, Turkmenistan and Uzbekistan, (seven if Iran and the terminal river, Tedjen, it shares with Afghanistan and Turkmenistan is included). It rises in Afghanistan, the Kyrgyz Republic and Tajikistan. The river then flows for 2,400 km through these states, Turkmenistan and Uzbekistan before terminating in the Aral Sea. For a detailed analysis of the ASB and Amu Darya's hydrology, the Aral Sea problem and water use patterns by state and sector see Micklin (1991a, 2000 & 2006).

Table 1: Flow and withdrawals from the Amu Darya[1]

	AVERAGE ANNUAL FLOW (KM^3)	WITHDRAWALS (KM^3)
Afghanistan	17.0	5 est.
Iran	< 3	NA
Kyrgyz Republic	1.6	0.15
Tajikistan	49.6	7.9
Turkmenistan	1.5	22
Uzbekistan	5.1	22
Aral Sea	-	9.3
Total	79	66.35

Sources: Glantz, 2005; Micklin, 2000; Ahmad & Wasiq, 2003.

The Amu Darya river is an important source of water for all the riparians (See Table 1 and Table 2). Agriculture, a key economic sector in all of the states, is the main user. More than 90% of the ASB's crops are produced on irrigated land for example (Micklin, 1991b, p 217). Uzbekistan has the largest area under irrigation, followed by Turkmenistan and Afghanistan (See Table 2). All of the Amu Darya states have plans to increase the amount of land under irrigation (Micklin, 2006, p 560). Cotton remains a key irrigated crop for Tajikistan, Turkmenistan and Uzbekistan, although its GDP share is declining in all of these states (EIU, 2007; 2008b). Their reliance on cotton agriculture has "profound political, economic and social consequences" with mutually reinforcing links to these states' "lack of political openness, failure to reform economies, large-scale poverty and social deprivation" (International Crisis Group, 2005, p 1).

Table 2: Irrigated Land in the Amu Darya Basin

	IRRIGATED LAND IN AMU DARYA BASIN (MILLION HA)
Northern Afghanistan	1.16
Iran	-
Kyrgyz Republic	0.1
Tajikistan	0.5
Turkmenistan	1.7
Uzbekistan	2.3
Total	5.76

Source: USAID, 2002 quoted in Ahmad & Wasiq, 2004, p 26.

Traditionally most of the policy and academic interest on the river has focused on the Central Asian riparians. Afghanistan has generally been ignored although there have been notable exceptions such as the "Water, Climate, and Development Issues in the Amu Darya Basin" workshop in Philadelphia 1992. This is however understandable given that collectively these states are the majority of the riparians and the largest water users. However Afghanistan cannot be ignored. It is the second largest contributor to the river after Tajikistan, contributing nearly a quarter of the river's 79 km^3 flow (Ahmad & Wasiq, 2003). Northern Afghanistan accounts for 15% of Amu Darya basin area and 17 % of its population (Micklin, 2000, p 4). Afghanistan is also the source of other ASB rivers, the Atrek, Murghab and Tedjen. All three

terminate in Turkmenistan, although the Tedjen also travels across Iran.

The Amu Darya is an equally important asset for Afghanistan. For half of its length, it flows either inside Afghanistan or along its border (Ahmad & Wasiq, 2003, p 10). Between 13-40% of Afghanistan's area and more than 25% of its population are within the river basin (Glantz, 2005, p 26; Micklin, 2000, p 4, Ahmad & Wasiq, 2003). The Amu Darya area is the most agriculturally productive in Afghanistan, containing 1.16 million ha of irrigated land (a third of country's total). Only 385,000 ha of this are in sub-basins with permanent flow to the Amu Darya however (Ahmad & Wasiq, 2003, pp. 2-17).

It is worth noting at this point there are considerable variations in the hydro-data on Afghanistan. Caution must be exercised when using these statistics and the conclusions based on them. Contemporary information on Afghanistan's water flows and withdrawals does not exist. Estimates are based on 1960-1970's information. In the intervening period, war has caused population movement and a collapse in agriculture including the destruction and lack of maintenance of its irrigation systems. Afghanistan's hydrological data acquisition has also been effected reductively. In addition various studies define the Amu Darya catchment differently. Some include the terminal rivers for example.

An additionally important use of the Amu Darya for Tajikistan and potentially Afghanistan is Hydro-Electric Power (HEP). At present more than 90% of Tajikistan's energy generation comes from HEP. (EIU, 2008b) Before 1979, Afghanistan may have only developed approximately 10% its HEP capacity. These schemes fell victim to the country's thirty years of conflict however (Ahmad & Wasiq, 2003). Tajikistan's use of the Amu Darya for HEP generation (and Kyrgyz Republic on the Syr Darya) has led to disputes with Uzbekistan (and Kazakhstan) who prioritise irrigation withdrawals (Horsman 2001, p 75; Wegerich 2004, p 341).

3 Afghanistan and the Region's Water Management Structures

For more than a century Afghanistan and its northern neighbours, Russia, the USSR and Central Asian states, have concluded agreements relating to the Amu Darya. Afghanistan's right to an equitable allocation of the river has not been fully recognised by any of these however. Before 1991, Afghanistan and Russia/the USSR reached a number of relevant agreements, some of which are still in force. There was also a series of internal Soviet decrees with implications for Afghanistan. Since then the five post-Soviet states have established new institutions. However recognition of Afghanistan's legitimate water rights and responsibilities by its fellow riparians has not improved since 1987 and possibly not since 1958. Neither the Central Asian states' independence nor the establishment of the Karzai government in Kabul were seized as an opportunity to recast regional water structures.

Given the subsequent failure to include Afghanistan in post-1991 management structures it is worth noting the Amu Darya featured significantly in Russian/Soviet agreements with Afghanistan. The key agreements were:

- *Frontier Agreement Between Afghanistan and Russia, 1873.*
- *Frontier Agreement between Afghanistan and the Union of Soviet Socialist Republics, 1946, and*
- *Treaty between the government of the Union of the Soviet Socialist Republics and the Royal Government of Afghanistan concerning the regime of the Soviet-Afghan state frontier, 1958. (DGIA, 2001).*

All of these agreements primarily focused on the river as an international boundary. They also dealt with navigation, and water quality issues and usage such as irrigation. Water quotas were not directly addressed. It has been suggested that this was because Afghanistan's water withdrawals were so small that they were not considered an inter-state issue (Ahmad & Wasiq, 2004, p 40).

Collectively, the agreements are relevant for the present debate however. In particularly they indicate that the USSR saw a necessity in negotiating with Afghanistan over the Amu Darya as a shared resource as well as a common boundary. The 1958 Treaty is perhaps the most significant. It stated that each party "*shall take measures to ensure that in the use of frontier waters, and the waters of the rivers that flow to the frontier or into the frontier rivers … the mutual rights and interests of both Contracting Parties [sic] are respected*" *(Article 7). It also declared that "questions concerning the use of [frontier] waters … shall be governed by special agreements between the Contracting Parties*" (Article 16), the parties should exchange information about "frontier water" levels and volumes (Article 17) and agree on water diversions (Article 18) (DGIA pp. 139-40). A subsequent 1961 agreement banned any constructions on the Panj and Amu Darya without consultation with the other party (Ahmad & Wasiq, 2004, pp. 38-9).

During the 1980s a series of internal Soviet resolutions established quotas for the Central Asian SSRs. The key Amu Darya agreement was Protocol 566 of September 1987. This authorised 61.5 km^3 of water to be extracted by the four Soviet SSRs. Significantly it included the assumption that Afghanistan extracted 2.1 km^3 from the river (Ahmad & Wasiq, 2004, pp. 33-4). It does not appear that Kabul, by then a client state, was consulted however. Before the Soviet invasion Afghanistan had sent a delegation to Tashkent to prepare a water sharing agreement. However no agreement was reached. (Qaseem Naimi quoted in Rycroft & Wegerich ,2008.)

After independence the Central Asian states as successor states to the USSR inherited the rights and responsibilities of the previous but extant agreements (Ahmad & Wasiq, 2004, p 39). Thus they became signatories to the 1873, 1946, 1958 and 1961 agreements all of which remain in force.

In addition the Central Asian states established a series of regional institutions and agreements with the expressed intention of allocating the ASB's waters and protecting the Aral Sea. They began with the 1992 Almaty Agreement. With this the five states accepted that "only [through] unification and joint coordination of action" could the region's water crisis be managed effectively (O'Hara, 1998, p 13). Under the agreement, they retained Protocol 566's allocation quotas, refrained from projects infringing on other states rights and promised an open exchange of information. (O'Hara, 1998).

In the following years a number of institutions were established. These were the Interstate Coordinating Water Commission (ICWC), the subordinate Amu Darya and Syr Darya Basin Management Authorities (BVOs), the Interstate Council on Problems of the Aral Sea Basin (ICAS) and the International Fund for the Aral Sea (IFAS). Institutional reforms resulted in the ICWC being subsumed into the ICAS, and it subsequently integrated into the IFAS. It was hoped that the merger, in 1997, would simplify administrative procedures, and reduce duplication of effort and bureaucratic inertia (Micklin, 2000). This was a rare sign of the states' awareness of the serious nature of the ASB crisis and the need to coordinate their response more effectively. The Central Asian states also agreed to adhere to international water law. In doing so they accepted a normative body that supports "equitable, reasonable and mutually advantageous water resource use" and by implication Afghanistan's interests in the Amu Darya (Wegerich 2004, p 339; Vinograd & Langford, 2001, quoted in Weinthal, 2006, p 18).

Afghanistan has not been a member of any of these organisations however. There is no evidence that the Central Asian states or the water bodies established have ever considered including Afghanistan. The author of this paper is not aware of any public discussion of Afghanistan's membership of IFAS at its foundation, when it was merged with the ICAS or after the Taliban's removal. There is one 2003 media reference to Afghanistan plans to join IFAS (Kirby, 2003). It is unclear whether there was substance to the story however and if so why the plan never came to fruition. In fact Weinthal argues that "the Central Asian [successor states] were quite adamant that Afghanistan should not be included in the new institutions" (2006, p 18).

References to Afghanistan by IFAS are fleeting and not positive. The only reference to Afghanistan on IFAS's own website is on a map. This simply shows that northern Afghanistan is within the ASB (IFAS website, 2008). There is no textual reference to the fact that Afghanistan is an ASB state or contributor to the Amu Darya's waters. In a presentation at the 3rd World Water Forum, the chairman of IFAS's Executive Committee (EC-IFAS)2, Sirodjidin Aslov, for example mentioned potential cooperation with Afghanistan only once. This was not within the IFAS structure either but as part of a potential bid to seek a UN mandate for the regional water management bodies (Aslov, 2003a). Similarly in a report recording IFAS's first ten years, Afghanistan was only mentioned as a potential problem. The report stated that Afghanistan's future water demands are a "big uncertainty" for the other riparians (Aslov, 2003b p 18). A subsequent ICWC-IFAS roundtable noted that there was a need for "concerted actions to develop the water management system in the region, … due to the development of new irrigable lands in Afghanistan" (ICWC, 2005). In neither instance did IFAS or member states suggest that Afghanistan's membership was a way of addressing these "uncertainties."

No bilateral agreements have been reached between Afghanistan and the Central Asian riparians either. In fact the only transboundary water agreement that the Karzai government has with any of its neighbours is with Iran over the Helmand (Hirmand) river (Government of the Islamic Republic of Afghanistan, 2007). The only Central Asian riparian that seems interested in serious dialogue with Afghanistan is Tajikistan. The two states held three water-related meetings in 2006-7 (ENVSEC 2007). Although it is hard to assess the substance behind the meetings' rhetoric, participants from both states called for transboundary cooperation (GoA, UNDP & UNEP, 2007). Their bilateral dialogue is interesting because there are strong political and water-related synergies between them. These are discussed below.

4 Reasons for Afghanistan's exclusion

The absence of Afghanistan from IFAS and the Amu Darya BVO seems a serious omission on practical and legal grounds. Afghanistan's exclusion runs contrary to the spirit if not wording of IFAS and Central Asian riparian regulations and declarations. IFAS's regulations for example state that the organisation takes account of "the interests of all the states of the region" (IFAS Regulations, 2008).

4.1 Practical Reasons

Ahmad & Wasiq (2004) argue Afghanistan has been absent from Soviet and post-Soviet allocation agreements because its past and future water demands have been and will be modest. They believe that Afghanistan could technically increase land under irrigation in the Amu Darya basin by 20%. This will only raise Afghanistan's total extraction from 5 to 6 km^3, still be less than 2% of the river's total supply. And this expansion could take up to two decades to achieve. Consequently they argue that Afghanistan's neighbours do not feel a sense of competition or urgency to reach an allocation agreement with Kabul (2004, pp. 3 & 41).

There is some merit in this argument. There is however debate about Afghanistan's future water demands, its ability to implement potential irrigation and HEP projects and the implications for the other riparians. The key problem is the absence of contemporary credible hydro-data to base such an assessment on. As noted earlier 20-30 year old plans and data are the source of our present understanding. Therefore Ahmad and Wasiq's (2004) analysis contrasts with that of Zonn's (2002). He believes that Afghanistan's demands could increase to 16 km^3, nearly a quarter of the river's supply (2002, quoted in Rycroft and Wegerich, 2008). The magnitude of difference between 2 and 16 km^3 and the implications for other water users is considerable. It is probably fair to assume that any increase in Afghanistan's demands will be gradual and slow to achieve, although at some point its neighbours will have to face this future. They may, as Ahmad and Wasiq (2004) suggest, take more than two decades to achieve.

This modest prognosis allows both Ahmad and Wasiq, and Dukhovny and Sokolov (senior ICWC staff members) to be relatively relaxed about the impact of Afghanistan's future water requirements on the rest of the region, especially as most of its summer withdrawals will be returned to the system and re-used by downstream states (2004, p 3; 2003, p 33; Wegerich, 2004, p 336). "Thus the impact of increased withdrawals in Northern Afghanistan on [Turkmenistan and Uzbekistan] … would be negligible, and if any likely to be felt only during the dry years." (Ahmad & Wasiq, 2004, p 3). The need for Afghanistan's membership of IFAS is therefore not a priority they argue.

On a purely technical and rational basis Ahmad and Wasiq's, and Dukhovny and Sokolov's assessments may be correct in the near-to-medium term. There are problems with these "benign" assessments however. They are based on old and partial information, although possibly the best data available. They also negates the role of agency and uncertainty. Political relations, HEP versus irrigation usage, and potential climate change dynamics are underestimated. It could also be argued that their assessments are not positivist or apolitical but conservative and pro-status quo in their construction and implications.

The mitigations that Ahmad and Wasiq (2004) suggest to lessen the impact of any modest increased extractions by Afghanistan seem optimistic at best. They suggest that water management improvements in Turkmenistan and Uzbekistan including improved irrigation techniques and reduction in the area under cotton and rice production could be the answer (Ahmad & Wasiq, 2004, pp. 30-31). It is unlikely that the self-interested and irrigation-dependent Turkmenistan and Uzbekistan will modify or improve their water usage unilaterally and voluntarily in response to another riparian's increased water extraction. (They may do so if Afghanistan's actions result in water scarcity, something Ahmad and Wasiq suggest is not likely.) Any improvement in irrigation techniques would be very expensive, probably in the US$ billions and beyond the "willingness and ability of the basin states." (Micklin, 2006, p 560). Crop substitution may be more feasible. Both Turkmenistan and Uzbekistan have done this. This however has been for their national food security objectives not for reducing water use per se. There "are limits to such a program" too as both states continue to see cotton as a key hard currency source (Micklin 2006, p 560).

Other factors question these benign assessments too. The Amu Darya is already heavily utilised. All of the riparians, not just Afghanistan, have plans to increase water extraction. (Micklin 2006, p 560). Therefore Afghanistan's future water demands, whether it is 6 or 16 km^3, must be seen in the broader context of an already heavily utilised resource that is likely to see further unsustainable demands.

Also if Afghanistan's exclusion from regional water structures is predicated primarily on its modest historic and future water demand then it begs the question why is the Kyrgyz Republic a member of the Amu Darya BVO and IFAS. It only contributes 3% of the river's flow and withdraws only 0.15 km^3 (Micklin, 2000, pp. 7 & 44). Afghanistan's present role is already higher than this and some IFAS officials and analysts believe that Afghanistan's future water demands are a challenge and will have a "substantial impact" on Turkmenistan and Uzbekistan (Aslov, 2003a; Zonn, 2002; Weinthal, 2006, p 19). This would suggest the need for Afghanistan's (as well as the Kyrgyz Republic's) membership in IFAS and the BVO.

Afghanistan's absence from the regional fora cannot therefore be solely or primarily based on its "modest" and "unchallenging" water needs. Other reasons, which emphasise the role of agency and politics seem to explain its omission.

4.2 Regional Relations

A key factor has been Afghanistan's domestic situation and the implications for its relations with its neighbours. As Gleick notes the political context is important for trans-state water management (1995, p 85). For most of the last thirty years Afghanistan has been weak, unstable and its government

either unable or uninterested in cooperating with its neighbours. During this period, relations with Moscow and the Central Asian capitals have fluctuated between clientism and antagonism. In the crucial years for the ASB water management structures, 1992, Kabul had four different presidents and in 1997 when ICAS merged with IFAS, the Taliban was in power. Central Asian governments held little respect for the numerous and weak Kabul governments between 1991-96 and antipathy towards the Taliban thereafter. None formally recognised the Taliban and some actively sought to remove it (ICG 2001). This probably meant that the Central Asian government felt little need to consult with Kabul over water for over a decade. It is harder to use this line of analysis to explain why post-2001 cooperation has been poor however. After the fall of the Taliban government, Afghanistan's neighbours were signatories to a number of agreements with it. These include the Good Neighbourly Relations Declaration (2002) and the Berlin Agreements (2003). However rhetoric has not been matched by substance (Bosin, Gleason & Hanks) Afghanistan's place in the Amu Darya is still denied. In one instance this may have taken a retrospective dimension. At a NATO workshop held in 2004, specific references to Afghanistan were reportedly removed from the final report, despite having been in the initial draft (Murray & Tarlock, 2005, p 762).

4.3 Regional attitudes towards Cooperation

One reason for this lack of progress may be a pervasive "non-cooperative tendency" in the region (Wegerich 2004, p 339). "Not all stakeholders in the Central Asian region share the same values, …. or interests in promoting regional cooperation" (Bosin, Gleason & Hanks, undated, p. 1). Antipathy toward multilateral organisations and cooperation is particularly acute in Asghabat and Tashkent. IFAS member states have expended little political or financial effort on the body (Horsman, 2001, pp. 73-4). Instead they have pursued unilateral approaches to water resources issues. Their laws have defined water as a national asset rather than common good, for example (Kaysmova 1999, quoted in Wegerich 2004, p 339). Turkmenistan's Golden Century Lake and Turkmen Lake projects are striking examples of this unilateral approach (Horsman, 2001, pp. 76-7) Given that these artificial lakes will probably require additional withdrawals from the Amu Darya it may be an infringement of Articles 7 and 16 of the 1958 Treaty. Uzbekistan has complained about the impact of the lakes on the lower Amu Darya (ICG, 2002, p 30).

Afghanistan's exclusion may be indicative of the lack of commitment the other riparians have to IFAS, its goal of equitable water allocation and the concept of shared rights and responsibilities. As Wegerich notes "sharing a resource implies sharing costs of operation and maintenance of the resource management structures." (2004, p 336). It is therefore curious that IFAS member states seem uninterested in sharing their burden with a potential "free riding" riparian. "Regional cooperation is likely only when states value the opportunities that openness can create more than the need for control" (Rubin and Armstrong, 2003, p 39). At present the Central Asian governments seem to firmly favour the latter.

4.4 Institutional Inertia and Self-Interest

IFAS may be "dysfunctional", lethargic, biased and self-interested (McMurray & Tarlock, 2005, p 761). As such it and its key members may not want a new, potentially challenging member. Regional institutions have an inbuilt resistance to change. Decisions in ICWC, the IFAS sub-body, must be made unanimously and all members have a veto. As a result "agreement is dependent on the 'political will' of [both] upstream and downstream users." (Wegerich 2004, 338). In addition it is argued that IFAS and the Amu Darya BVO favour Uzbekistan's interests (Wegerich, 2005, 2008). Afghanistan's membership could upset the status quo and especially the downstream states' interests. It may therefore struggle to gain membership as it potentially challenges the interests of the two IFAS members with the most at stake, Turkmenistan and Uzbekistan.

Inclusion of Afghanistan in IFAS may raise uncomfortable questions about the organisation's

and its present member states' working practices and commitment to cooperative goals and adherence to allocation quotas. International donor community assistance to Afghanistan may result in its water management laws and practices based on global norms on sustainable development and genuine cooperation (McMurray and Tarlock, 2005, pp. 715-6). These are not features some of the other riparians entirely respect. Ashgabat and Tashkent may also be wary of engaging with a non-post Soviet state, closely linked to the international development and donor community. In addition the inclusion of another state with legitimate rights to Amu Darya waters could also mean that the current, albeit ineffectual and unequal, allocation system needs revising. On this specific point Afghanistan's present inability to provide reliable water data may be an advantage to some of the other riparian's. That said the Kyrgyz Republic has had similar links to the donor community. Its membership of IFAS has not led increased transparency or inclusivity in the organisation.

4.5 Upstream-Downstream Differences

The upstream-downstream dynamic is perhaps a key factor in explaining Afghanistan's exclusion. It also indicates future areas of cooperation and confrontation. Upstream Afghanistan and Tajikistan sees the Amu Darya as a source of HEP as well as irrigation. Downstream Turkmenistan and Uzbekistan see the river primarily as a source of irrigation water for cotton and rice production. Afghanistan and Tajikistan both have plans to increase their HEP production. Tajikistan's plans are much more advanced and larger in scale (EIU 2008b). It plans to double present electricity production with a number of new HEP plants, Rogun being the largest (EBRD, 2008, p 5). Afghanistan hopes that the Amu Darya tributaries, Kokcha and Kunduz, may partly address its considerable energy deficiency. It has been claimed that the downstream impact of Afghanistan's smaller schemes with smaller reservoir storage capacity will be limited (Ahmad & Wasiq, 2004, p 23).

However a shared water resource used by both irrigation and HEP users has the potential for inter-state disagreement (Wegerich 2004, pp. 340-1). Afghanistan and Tajikistan's future HEP plans may therefore lead to disputes with Turkmenistan and Uzbekistan. Tashkent has already been critical of Dushanbe's plans (EIU 2008b). Whilst Afghanistan's proposals may have a lesser impact than Tajikistan's schemes they meet opposition from Turkmenistan and Uzbekistan who are dependent on large summer water supplies. If large-scale winter HEP generation is implemented it may have detrimental impacts for the downstream water users. It can cause downstream flooding, damage downstream infrastructure (due to ice) and reduce the amount of water available in summer for irrigation (Wegerich, 2004, p 341). It could also challenge Turkmenistan and Uzbekistan energy policies including exporting thermally-generated electricity to their neighbours. Without an integrated water-energy agreement competing inter-sectoral water use is likely to remain a key source of friction (Wegerich, 2004, pp. 340-1).

In this light it is interesting to note that the only riparian that has seriously engaged with Afghanistan is Tajikistan. Both are upstream states. They contribute the majority of the river's flow, and see the water as a potential source of HEP *and* irrigation. There may be scope for the two to work together to strengthen their position vis-à-vis the downstream states. There are other interesting synergies between them too. They are the two poorest riparians in terms of GDP, and energy and food security (EIU, 2008a & 2008b). Both have emerged from civil war. Tajikistan's civil war ended in 1997. After this it was able to start planning longer-term economic development again. This has included irrigation and HEP projects (Weinthal, 2006, pp. 16-17). Ashgabat and Tashkent have opposed Dushanbe's plans to increase its water demands. Afghanistan emerged later and more fitfully from a much longer and intensive period of conflict. It will take longer for it to increase demands on the Amu Darya but may lead to similar disputes to those arising from Tajikistan's HEP activities.

4.6 Collective Management: The benefits for Afghanistan?

A final reason for Kabul's absence from IFAS may be a question about the benefits of cooperating with the other riparians for Afghanistan. Contrary to the claim that "because of the implications of future water use in Northern Afghanistan … Afghanistan *will have* to collaborate with the other riparians" it could in fact be argued that there are few reasons why it should (Ahmad & Wasiq, 2004, p 33. Emphasis added by this author). Similar claims that "[w]ithout the knowledge and experience of former Soviet republics on irrigated farming production … Afghanistan can never achieve effective reconstruction" and that Soviet "irrigation technologies" should be transferred to Afghanistan to construct permanent food production for starved Afghan people" seem naïve at best (Fuchinoue, Tsukatani & Toderich, 2002, p 2, & 23). Soviet practices have led to a cotton sector, which in the view of one source, has contributed "to political repression, economic stagnation, widespread poverty and environmental degradation." (International Crisis Group, 2005, p 1) The ICG report provides striking evidence of the inherent unsustainability of Central Asian present system and why it is not a model to emulate. Kabul may be wary of cooperating with its Central Asian neighbours given they have little to offer in terms of best practice.

In addition the other riparians have already divided the river amongst themselves and established a mechanism, IFAS, without consulting Afghanistan. IFAS does not protect or promote Afghanistan's interests and rights. In fact it barely acknowledges them. Membership of this "dysfunctional" organisation would not give Afghanistan any benefits. Nor is IFAS able to coerce Kabul to join. Given the lack of commitment to regional cooperation there is little reason to see why Afghanistan should feel compelled to accept norms that others flout. Ultimately Afghanistan is an upstream state with direct and uninterrupted access to the waters it depends upon. It does not need to ask any other state for permission to utilise this resource.

It seems however that Kabul values cooperative water management structures. It sees it as a means of defending and promoting its own national interests and protecting a shared natural resource. Afghanistan's Foreign Minister, Abdullah Abdullah, first stated the importance of regional cooperation in the country's foreign policy in 2003 (Rubin & Armstrong, 2003, p 35). Kabul's support for transboundary water cooperation, was emphasised in the 2007 Ministry of Energy and Water's draft Transboundary Water Policy document and the 2008 Water Security Strategy draft. The 2007 draft argued that fellow riparians had taken advantage of Afghanistan's 30 years of weakness and instability and failed to consult or compensate it for their increased extractions from shared rivers during the last "three decades of occupation, civil unrest and post conflict reconstruction." During the same period, the draft continued, Kabul was unable to "implement projects … or defend its interests ... in the ongoing process of water resources sharing" (The Government of the Islamic Republic of Afghanistan, 2007, pp. 6-7). The draft argued that being party to international agreements would:

- Encourage regional cooperation and understanding.
- Protect Afghanistan's water rights, encourage economic development and international donor investment lead to "fair and sustainable" water allocation. And
- Prevent possible water conflicts.

(Government of the Islamic Republic of Afghanistan, 2007, pp. 2-3)

5 Conclusion

Fellow riparians recognition of Afghanistan has been poor. It probably reached its peak in 1987. Since then the Central Asian states have gained independence, indigenous regional water management structures established and diplomatic relations with Afghanistan improved. Genuine inclusive cooperative institutions have not been created and Afghanistan's interests not recognised however.

Afghanistan seems to have been ignored because of regional political trends and norms, an antipathy towards multilateral cooperation and institutions, and the inbuilt self-interest and unequal power relations within IFAS and Central Asia more generally.

There are also more benign reasons for Afghanistan's exclusion. Cooperation with Kabul is not a priority for any of the other riparians. At present, there is no water crisis that needs to be resolved through negotiations and cooperation. (In fact until there is a crisis cooperation may not take happen. Fortunately evidence suggests that most transboundary water disputes end in agreement not conflict (ICG, 2005, p 30, Naff and Matson, 1984; Economist, 2008). Afghanistan's probably modest but uncertain future water needs may also have a limited impact on its fellow riparians and the Aral Sea's interests, at least in the near future. As a result both the World Bank and USAID favour prioritising the rehabilitation of Afghanistan's domestic water management and technical capacity over immediate integration into regional fora (Ahmad & Wasiq, 2004, p 41, Weinthal, 2006, pp. 19 & 27). Once Afghanistan has re-established its water analysis and management structures it will be better placed to engage with its fellow riparians (Rycroft & Wegerich, 2008).

Most authors agree that Afghanistan's inclusion in regional water structures should begin at the technical level. This would improve Afghanistan's hydrological data and help inter-state information-sharing. It would help provided a credible and complete picture of water resources and demands and help inform regional decision-making. It would also encourage apolitical experts-to-experts contact with confidence-building implications.

IFAS and its present member states should be encouraged to revise their attitudes towards Afghanistan's interests and its potential membership. They should also honour existing agreements and declarations. They should be planning for and assisting Afghanistan's future entry into IFAS. At present allocation "is based on a first come first serve basis within the set [ICWC allocation] limits." Tajikistan showed in the droughts of 2001-2 that upstream states are able to take their full allocation leaving little for the other riparians (Wegerich, 2005, p 12). At present, Afghanistan, unencumbered by the superficial constraints of IFAS membership could easily follow Tajikistan example. It seems therefore in Uzbekistan and Turkmenistan's long-term interests to bring Afghanistan into a competent and enforceable water management structure not the present "dysfunctional" one. "Successful integration of Afghanistan is … crucial for achieving sustainable solutions to water management challenges in the region." (Kranz, Vorwerk and Interwies, 2005, p 11). It would help address water–energy swaps, sustainable economic and environmental developments including conserving the Aral Sea, adherence to international water laws and encourage broader and meaningful inter-state dialogue and cooperation.

The likelihood of this happening in the near future and without a crisis as a catalyst is uncertain however. Afghanistan remains weak and focused on its own internal issues, the Central Asian government uninterested in meaningful economic or political reform including inter-state cooperation, and the international donor community focussed, with some justification, on other priorities in the region.

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Endnote

1. This figure only includes Afghanistan rivers that permanently flow into Amu Darya. It does not include Afghanistan or Iran's terminal rivers.

2. For information about Executive Committee of IFAS, see EC-IFAS, 2008.

References

Ahmad, M. & Wasiq, M., 2004. *Water Resource Development in Northern Afghanistan and Its Implication for Amu Darya Basin*. World Bank.

Asian Development Bank, *Technical Assistance for Improved Management of Shared Water Resources in Central Asia*, 2003. www.adb.org/Documents/TARs/OTH/tar_oth_36516.pdf

Aslov, S., 2003a. *IFAS Initiatives in the Aral Sea Basin, the 3rd World Water Forum - Regional Cooperation in Shared Water Resources in Central Asia*, Kyoto.

Aslov, S., 2003b. *IFAS 10 years* (decisions and events), International Fund for Saving the Aral Sea Executive Committee, Dushanbe.

Bosin, Y. Gleason, G, & Hanks, R., (undated) *Afghanistan Reconstruction in Regional Perspective*, (draft).

Dukhovny, V. & Sokolov, V., 2003. *Lessons on cooperation building to manage water conflicts in the Aral Sea Basin*, Technical documents in hydrology: PC-CP series; 11, Provisional Version.

The Economist, 2008. *Streams of blood or streams of peace*, 1 May.

Economist Intelligence Unit (EIU), 2007. *Turkmenistan: Country Profile*.

EIU, 2008a. *Afghanistan: Country Profile*.

EIU, 2008b. *Tajikistan: Country Profile*.

Environmental and Security Initiative (ENVSEC), 2007. *Summary of the Regional Meeting on Environment and Security in the upper Amu Darya River basin between Afghanistan and Tajikistan*, Kabul, 20-21 November.

European Bank of Reconstruction and Development, 2008. *Renewable Energy Initiative - Tajikistan*, http://ebrdrenewables.com/sites/renew/countries/Tajikistan/default.aspx

Fuchinoue, H., Tsukatani, T., & Toderich, K.N., 2002. *Afghanistan Revival: Irrigation on the right and left banks of Amu Darya*, Kyoto Institute of Economic Research Discussion Paper No. 554, Kyoto.

Glantz, M., 2005. *Water, Climate, and Development Issues in the Amu Darya Basin, Mitigation and Adaptation Strategies for Global Change*, Volume 10, Number 1 / January, pp. 23-50.

Gleick, P H. 1995. *Water and Conflict: Fresh Water Resources and International Security*. in Lynn-Jones S. and Miller, S. (eds.), Global Dangers: Changing Dimensions of International Security, Cambridge, Mass.: MIT Press.

Government of the Islamic Republic of Afghanistan; United Nations Development Programme (UNDP) & United Nations Environment Programme (UNEP). 2007. *Afghanistan/Tajikistan: Fostering environmental cooperation in the Amu Darya River basin*, Kabul.

Government of the Islamic Republic of Afghanistan - Ministry of Energy and Water. 2007. *Transboundary Water Policy of Afghanistan* (draft).

Horsman, S., 2001. *Environmental Security: Regional Cooperation or Conflict?* in Allison, R. & Jonson, L (eds.) Central Asian Security: The New International Context, Brookings Institute/RIIA, Washington, pp. 69-94.

International Crisis Group (ICG), 2001. *Central Asian Perspectives on 11 September and the Afghan Crisis*, Asia Briefing No 9.

ICG, 2002. *Central Asia: Water and Conflict*, Asia Report No 34.

ICG, 2005. *The Curse of Cotton: Central Asia's Destructive Monoculture*, Asia Report No 93.

International Fund to Save the Aral Sea (IFAS), 2008. *IFAS Regulations*, http://www.ec-ifas.org/English_version/About_IFAS_eng/regulation_ifas_eng.htm (Accessed 10/08/2008).

EC-IFAS, 2008. *Executive Committee*, IFAS, http://www.ec-ifas.org/English_version/CA_states_eng.htm (Accessed 10/08/2008).

The Interstate Coordinating Water Commission, 2005. *Press Release No 18* (102), http://sic.icwc-aral.uz/releases/eng/102.htm, November.

Kirby, A., 2003. *Kazakhs 'to save north Aral Sea'* BBC Newswebsite, http://news.bbc.co.uk/1/hi/sci/tech/3218961.stm, 29 October.

Kranz, N. Vorwerk, A. Interwies, E., 2005. *Transboundary river basin management regimes: the Amu Darya basin case study*, Ecologic – Institute for International and European Environmental Policy, Berlin.

McKinney, D., 2003. *Cooperative Management of Transboundary Water Resources in Central Asia*, in Burghart D.L. & Sabonis-Helf, T., (eds.) In the Tracks of Tamerlane: Central Asia's Path to the 21st Century, Washington, D.C.: National Defense University.

McMurray, J., & Tarlock, D., 2005. *The Law of Later-Developing Riparian States: The Case of Afghanistan*, New York University Environmental Law Journal 711, pp. 711-763.

Micklin, P., 1991a. *The Water Management in Soviet Central Asia*, The Carl Beck Papers in Russian and East European Studies, No. 905, University of Pittsburgh.

Micklin, P., 1991b. *The Water Crisis in Soviet Central Asia*, in P. Pryde, Environmental Management in the Soviet Union, Cambridge: Cambridge University Press.

Micklin, P., 2000. *Managing Water in Central Asia*, London: The Royal Institute of International Affairs, Central Asian and Caucasian Prospects.

Micklin, P., 2006. *The Aral Sea Crisis and Its Future: An Assessment in 2006*. Eurasian Geography and Economics, Volume 47, Number 5, pp. 546-67.

Naff, T. and Matson, R (eds.) 1984. *Water in the Middle East: Conflict or Cooperation?*, Boulder, Westview Press.

Nukus Declaration, 1995. http://www.ec-ifas.org/English_version/About_IFAS_eng/declaration_eng/nukus_dec_eng.htm, 20 September 1995.

O'Hara, S., 1998. *'Managing Central Asia's Water Resources: Prospects for the 21st Century'* ICREES Seminar on Environmental Issues in Central Asia, University of Nottingham, 9 December.

Peachey, E., 2004. *The Aral Sea Basin Crisis and Sustainable Water Resource Management in Central Asia*, Journal of Public and International Affairs, Volume 15, pp 1-20.

Rubin, B. & Armstrong, A., 2003. *Regional Issues in the Reconstruction of Afghanistan*, World Policy Journal, Vol. XX, No 1, pp. 31-40.

Rycroft, D. & Wegerich, K., 2008. *The three blind spots of Afghanistan: Water production, Irrigation Development and Impact of Climate Change*, Submitted.

United States Agency for International Development, 2002. *Transboundary Water and Related Energy Cooperation for the Aral Sea Basin Region of Central Asia*. Presentation available online. http://www.cawater-info.net/bk/water_law/pdf/lennaerts_eng.pdf (Accessed 10/08/2008).

Wegerich, K., 2004. *Coping with the dis-integration of a river-basin management system: multi-dimensional issues in Central Asia*, Water Policy, Vol. 6, pp. 335-344.

Wegerich, K.,Undated. *Open and hidden problems of the current and future water distribution in the Amu Darya Basin*, (translation of 2005, Wasserverteilung im Flusseinzugsgebiet des Amudarya. Offene und verdeckte Probleme – heute und in der Zukunft). In Neubert, S., W. Scheumann, A. van Edig und W. Huppert (Eds.), Integriertes Wasserressourcen Management (IWRM): Ein Konzept in die Praxis ueberfuehren, Nomos Verlag, pp. 201-215.

Wegerich, K., 2008. *Passing over the conflict. The Chu Talas Basin ageement as a model for Central Asia?* In: Rahaman, M. M. & Varis, O. (Eds.): Central Asian Waters-Social, Economic, Environmental and Governance Puzzle: xx-xx. Water and Development Publications, Helsinki University of Technology, Finland.

Weinthal, E., 2006. *Water Conflict and Cooperation in Central Asia*. Prepared as Background Paper for the UN Human Development Report 2006, Human Development Report Office Occasional Paper.

Zonn, I. 2002., *Water Resources of Northern Afghanistan and their Future Use*. Presented at the Informal Planning Meeting Philadelphia, Pennsylvania, 18-19 June.

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