

WEAPONIZING WATER: WATER AND
ENERGY AS SOURCES OF CONFLICT
AMONG THE CENTRAL ASIAN SOVIET
SUCCESSOR STATES

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INTRODUCTION

Kyrgyzstan. Tajikistan. Turkmenistan. Uzbekistan. The very names of the nations comprising the Amu Darya Basin¹ conjure images of dusty merchants traveling the Old Silk Road to exchange European precious metals and horses for Chinese silk and porcelain.² Today, regional powers with voracious appetites for energy—Russia to the north, India to the south, China to the east, and Iran as well as Europe to the west—compete for access³ to the recently-discovered Central Asian

¹ JAKOB GRANIT ET AL., REGIONAL WATER INTELLIGENCE REPORT CENTRAL ASIA: BASELINE REPORT, 15 (2010) [hereinafter GRANIT], http://www.watergovernance.org/documents/WGF/Reports/Paper-15_RWIR_Aral_Sea.pdf. Iran and Afghanistan are the other two countries in the Amu Darya Basin, but are not former Soviet states. *Id.*

² *From Exotic to Everyday: The New Silk Road Shrinks a Continent*, CENT. EUR. UNIV. (Feb. 2, 2013), <http://www.ceu.hu/node/34428>.

³ *See generally*, EUR. COUNCIL ON FOREIGN RELATIONS, THE NEW GREAT GAME IN CENTRAL ASIA: CHINA ANALYSIS (2011), *available at* http://www.ecfr.eu/page/-/China%20Analysis_The%20new%20Great%20Game%20in%20Central%20Asia_September2011.pdf (describing scramble among regional powers for Central Asian fossil fuels).

fossil fuel bonanza.⁴ Russia, Pakistan and India vie with each other to connect to Central Asian gas, petroleum, and mineral fields on a North-South axis, while Europe and China struggle to do the same on an East-West plane.⁵ These rival powers fund competing infrastructure and economic development projects such as natural gas pipelines, dams, regional power sources, and roads.⁶ The success of these projects depends on stability among the Soviet Successor States.⁷ Stability among the Successor States requires resolving the conflicts caused by the water management scheme⁸ of the Amu Darya Basin, which is based

⁴ H.E. Sham L. Bathija, Senior Economic Adviser to President Hamid Karzai of the Islamic Republic of Afghanistan, Statement at the SAIS Central Asia-Caucasus Institute and CSIS Forum at Johns Hopkins University: The New Silk Road Initiative: Towards a New Strategy for Regional Economic Cooperation (Sept. 29, 2011) [hereinafter Bathija], available at http://www.silkroadstudies.org/new/docs/publications/110929SEAP_Bathija.pdf. Afghanistan has estimated mineral reserves of 2-3 trillion dollars. *Id.* Turkmenistan is estimated to have the fourth largest natural gas reserves in the world. *No international pipeline firm ready to implement TAPI gas project*, THE ECON. TIMES (Oct. 16, 2012, 4:53 PM), http://articles.economictimes.indiatimes.com/2012-10-16/news/34498967_1_tapi-gas-turkmenistan-afghanistan-pakistan-india-gas-pipeline.

⁵ Bathija, *supra* note 4.

⁶ See Robert D. Hormats, Under Secretary for Economic, Energy and Agricultural Affairs, Address at the SAIS Central Asia-Caucasus Institute and CSIS Forum at Johns Hopkins University: The United States' "New Silk Road" Strategy: What is it? Where is it Headed? (Sept. 29, 2011) [hereinafter Hormats], available at <http://www.state.gov/e/rls/rmk/2011/174800.htm>. One proposed project is the Turkmenistan-Afghanistan-Pakistan-India [TAPI] Natural Gas Pipeline. *Id.* Turkmenistan plans to export 24 billion m³ of natural gas to China in 2012. Vladimir Socor, *Beijing Proposes Turkmenistan-China Gas Pipeline Through Northern Afghanistan*, THE JAMESTOWN FOUNDATION (June 19, 2012), [http://www.jamestown.org/single/?no_cache=1&tx_ttnews\[tt_news\]=39510#UjoONT_4Kio](http://www.jamestown.org/single/?no_cache=1&tx_ttnews[tt_news]=39510#UjoONT_4Kio). Turkmenistan has promised to supply gas to Europe as part of the Nabucco pipeline project. *Turkmenistan Pledges Gas for EU's Nabucco Pipeline*, BBC (Nov. 19, 2010), <http://www.bbc.co.uk/news/world-europe-11797792>.

⁷ See Hormats, *supra* note 6.

⁸ OFFICE OF THE DIR. OF NAT'L INTELLIGENCE, GLOBAL WATER SECURITY: INTELLIGENCE COMMUNITY ASSESSMENT V (2012), available at http://www.dni.gov/files/documents/Special%20Report_ICA%20Global%20Water%20Security.pdf.

on outdated Soviet-era policies.⁹

The Soviet management plan for the Amu Darya Basin known as the “water-energy nexus” has resulted in several sources of conflict among the Successor States: (1) tensions caused by an inadequate water management scheme, (2) tensions caused by using water for irrigated agriculture, and (3) tensions caused by using water for hydroelectricity.¹⁰

To preserve Central Asia's geopolitical stability, the stakeholders in the Amu Darya Basin should become parties to the 1997 UN Convention on the Law of the Non-Navigational Uses of International Watercourses [“UNWC”]¹¹ for seven reasons: (1) helping the Amu Darya stakeholders draft a regional convention targeted at the Amu Darya, (2) improving the water management structure, (3) encouraging engagement with Afghanistan, (4) managing the Amu Darya according to already endorsed sustainable, integrated resource development and management principles, (5) preserving the rights and obligations of Amu Darya states under the current water management regime, (6) improving information sharing and monitoring, and (7) providing a useful set of dispute resolution procedures. Part I of this paper describes the Amu Darya Basin's hydrology and history. Part II introduces the “water-energy nexus.” Part III describes international watercourse law. Part IV introduces the UNWC. Part V explains why the Amu Darya riparians should

⁹ United Nations Environment Programme [UNEP], *Sustainable Management of Water Resources Key to Peace and Security in Central Asia*, UNEP (July 11, 2011), <http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=2647&ArticleID=8807&l=en&t=long>.

¹⁰ United Nations Environment Programme, Environment and Security Initiative, Environment and Security in the Amu Darya Basin, 34 (2011) [hereinafter ENVSEC] <http://www.zoinet.org/web/sites/default/files/publications/AmuDarya-EN-Web.pdf>; see Dhirendra K. Vajpeyi & Brittany Brannon, Conflict and Cooperation: The Aral Sea Basin, in *WATER RESOURCE CONFLICTS AND INTERNATIONAL SECURITY* 165 (Dhirendra K. Vajpeyi ed., 2012) [hereinafter Vajpeyi].

¹¹ United Nations Convention on the Law of the Non-navigational Uses of International Watercourses, *opened for signature* May 21, 1997, 36 I.L.M. 700, UN Doc. No. A/51/869; GAOR, 51st Sess., [hereinafter UNWC], available at http://www.un.org/en/ga/search/view_doc.asp?symbol=A/RES/51/229&Lang=E.

become parties to the UNWC and considers reasons the former Soviet States might hesitate to become parties.

I. AMU DARYA BASIN

An ancient Turkmen proverb proclaims: “Suw damjasy altyn danesi” or “A drop of water is a grain of gold.”¹² In the arid Amu Darya Basin, fresh water is scarce.¹³ Basin population growth from 14 million in 1960 to approximately 50 million in 2010 has exacerbated water scarcity.¹⁴

Known as the Oxus in Ancient Greece, the Amu Darya flows approximately 2,540 km and is the longest river in Central Asia.¹⁵ The Amu Darya River flows west as it descends from the mountains of Kyrgyzstan and Tajikistan, forming its main stem at the border of Tajikistan and Afghanistan.¹⁶ The Amu Darya then flows northwest, serving as the border between the deserts of Turkmenistan and Uzbekistan until it flows into Uzbekistan, where it eventually discharges into the Aral Sea.¹⁷

¹² *Drop of Water is a Gold Grain 2010 - International Exhibition and Conference of Water Resources of Turkmenistan*, TURKMENEXPO.RU, <http://turkmenexpo.com/db/exhibition/view/6021/> (last visited Dec. 22, 2012).

¹³ United Nations Food and Agriculture Organization, *Irrigation in the Countries of the Former Soviet Union in Figures* (1997), <http://www.fao.org/docrep/W6240E/w6240e03.htm>.

¹⁴ ENVSEC, *supra* note 10, at 23. The population in the Amu Darya Basin is as follows: Afghanistan 7.84 million, Kyrgyzstan 60 thousand, Tajikistan 5 million, Turkmenistan 2.14 million and Uzbekistan 5.07 million. United Nations Economic Commission for Europe [UNECE], *Second Assessment of Transboundary Rivers, Lakes and Groundwaters*, 109 (2011), http://www.unece.org/fileadmin/DAM/env/water/publications/assessment/English/G_PartIV_Chapter3_En.pdf.

¹⁵ ENVSEC, *supra* note 10, at 14. The army of Alexander the Great made its most celebrated crossing of the Oxus probably in Southeast Turkmenistan using rafts over a five-day period. Jona Lendering, *Bessus/Ataxerxes V*, LIVIUS.ORG, <http://www.livius.org/be-bm/bessus/bessus.html> (last visited Dec. 22, 2012).

¹⁶ ENVSEC, *supra* note 10, at 14. Glaciers in the mountains of Afghanistan, Kyrgyzstan, and Tajikistan generate 90 percent of the Basin's water resources. *Id.*; *Vakhsh River: Rivers and Lakes of Tajikistan*, ORIENTAL EXPRESS CENTRAL ASIA, http://www.tajikistan.orexca.com/vakhsh_river.shtml (last visited Mar. 12, 2013).

¹⁷ ENVSEC, *supra* note 10, at 14.

II. CONFLICT IN THE AMU DARYA BASIN: THE “WATER-ENERGY NEXUS”

The “water-energy nexus” refers to the water/electricity and natural gas allocation scheme established during the Soviet Union and preserved by the 1992 Almaty Agreement.¹⁸ It originated as a Soviet political strategy “used by Moscow planners to ‘divide and rule’ Central Asia”¹⁹ by forcing reliance upon the central planners in Moscow.²⁰ Under the plan, “[t]he upstream states of Central Asia (Kyrgyzstan and Tajikistan) released water during the spring and summer” free of charge to irrigate crops in the downstream countries and stored water during the frigid winters.²¹ The downstream states reciprocated by providing free electricity and gas from fossil fuel sources to the upstream countries “to cover domestic energy demand” in winter.²²

Today, Tajikistan and Kyrgyzstan continue to provide free water to Turkmenistan and Uzbekistan, but Uzbekistan charges Tajikistan and Kyrgyzstan for Uzbek and Turkmen electricity and gas.²³ Tajikistan and Kyrgyzstan continue to meet domestic electricity needs almost exclusively through hydropower,²⁴ while

¹⁸ Vajpeyi, *supra* note 10, at 165; Agreement on Cooperation in the Field of Joint Water Resources Management and Conservation of Interstate Sources, Kaz.-Kirgy.-Uzb.-Taj.-Turkm., Feb. 18, 1992 [hereinafter Almaty Agreement], available at <http://www.ce.utexas.edu/prof/mckinney/papers/aral/agreements/ICWC-Feb18-1992.pdf>.

¹⁹ Vajpeyi, *supra* note 10, at 165.

²⁰ *Id.*

²¹ ENVSEC, *supra* note 10, at 34.

²² *Id.*

²³ Gulnura Toralieva, *Power Struggle Threatens Central Asian Electricity Grid*, INSTITUTE FOR WAR AND PEACE REPORTING (Nov. 24, 2009), <http://iwpr.net/report-news/power-struggle-threatens-central-asian-electricity-grid>; *Central Asia facing new power crisis*, BUSINESS NEWS EUROPE (Nov. 28, 2012), http://www.bne.eu/story4308/Central_Asia_facing_new_power_crisis; see Sebastien Peyrouse, *The Central Asian Power Grid in Danger?* CENT. ASIA-CAUCASUS INST. ANALYST (Dec. 9, 2009), available at <http://www.cacianalyst.org/?q=node/5232>.

²⁴ GRANIT, *supra* note 1, at 20. Tajikistan generates 98 percent of its electricity from hydroelectric sources. *Id.*

Turkmenistan and Uzbekistan produce nearly all their electricity from fossil fuels.²⁵ The current water allocation scheme limits the upstream countries to only 19 percent of the Amu Darya's water resources, with the rest designated primarily for crop irrigation in Turkmenistan and Uzbekistan,²⁶ precluding Tajikistan and Kyrgyzstan from further developing their domestic hydropower resources to meet domestic energy demand, despite having the ability to do so.²⁷ The "water-energy nexus" has resulted in three main sources of conflict among the Amu Darya States: (1) inadequate management and legal oversight, (2) inefficient methods of irrigated agriculture, and (3) the development of hydroelectric dams.

A. Inadequate Water Management Scheme

The management and legal structures governing water allocation in the Amu Darya Basin originated during the Soviet period, reflect outdated priorities, and are inadequate for the Amu Darya States to meet their international obligations.²⁸ Currently three intergovernmental organizations are responsible for water resources management in the Amu Darya Basin: the Executive Committee of the International Fund for Saving the Aral Sea (EC-IFAS), the Interstate Commission for Water Coordination (ICWC), and the Interstate Commission for

²⁵ *Id.* Turkmenistan and Uzbekistan meet 90 percent of their electric needs from fossil fuel sources. *Id.*

²⁶ ENVSEC, *supra* note 10, at 36. The annual water withdrawal limits are as follows: Kyrgyzstan 0.45km³, Tajikistan 9.5 km³, Uzbekistan 28.05km³, and Turkmenistan 22.15 km³. *Id.* Afghanistan withdraws an estimated 2km³. *Id.* at 44.

²⁷ See ENVSEC, *supra* note 10, at 14, 34; GRANIT *supra* note 1, at 15. On average, the total amount of surface water in the Basin is 78 km³. ENVSEC, *supra* note 14, at 14. Of this 55.73 km³ is in Tajikistan, 14.5 km³ is in Afghanistan, 5.06 km³ is in Uzbekistan, 1.60 km³ is in Kyrgyzstan, 1.53 km³ is in Turkmenistan, and 0.86 km³ is in Iran. GRANIT, *supra* note 1, at 15.

²⁸ See *Strengthening the Institutional and Legal Frameworks of the International Fund for Saving the Aral Sea: Review and Proposals*, EC-IFAS, 3-5 (Jan. 31, 2010) (discussion paper) [hereinafter *Strengthening IFAS*], available at http://www.unece.org/fileadmin/DAM/env/water/cadialogue/docs/Draft_Paper_united_FINAL_ENG.pdf.

Sustainable Development (ICSD).²⁹ Of the Amu Darya States Tajikistan, Uzbekistan, Turkmenistan, and Kyrgyzstan are members of these three organizations.³⁰ The EC-IFAS governs the ICWC and ICSD.³¹ The EC-IFAS develops and implements water management policy such as the Aral Sea Basin Programs (ASBPs), which are the long-term strategies governing water resource management in the entire Aral Sea Basin.³² The ICWC administers the allocation of water resources in the Aral Sea Basin and includes the Basin Water Organization (BWO) Amu Darya, which manages the hydrostructures in the Amu Darya Basin.³³ The ICSD primarily helps the Amu Darya States meet their obligations under environmental conventions.³⁴

²⁹ *Id.* at 4.

³⁰ See ENVSEC, *supra* note 10, at 42; EC-IFAS, ARAL SEA BASIN PROGRAM 3 4 [hereinafter ASBP-3] (on file with author); *Legal Basis of IFAS*, EC IFAS, (2011), <http://ec-ifas.waterunites-ca.org/about/mfsa/110-legal-basis-of-ifas.html>.

³¹ *Strengthening IFAS*, *supra* note 28, at 17.

³² ASBP-3, *supra* note 30, at 7. ASBP-1 began in 1994 and ASBP-2 lasted from 2003-2010. *Id.* Currently, Aral Sea Basin Program-3 (ASBP-3) is the “main long-term action program” for water resource management in the Amu Darya Basin. *Id.* at 3. ASBP-3’s implementation period lasts from 2011-2015. *Id.* at 4. The heads of state of the IFAS member countries adopted ASBP-3 in 2012. *ASBP-3 has been signed by all countries of IFAS*, EC IFAS (May 17, 2012), <http://www.ec-ifas.org/>; see generally Joint Statement of the Heads of States Founders of the International Fund for Savin[g] the Aral Sea (Apr. 28, 2009) [hereinafter Joint Statement], available at <http://www.waterunites-ca.org/themes/42-joint-statement-of-the-heads-of-states-founders-of-the-international-fund-for-savin-the-aral-sea.html?view=booktext> (tasking EC-IFAS with developing the ASBP-3 Program).

³³ Yu. Khudaiberganov, *Particular Characteristics of Integrated Water Resources Management (IWRM), in the Amudarya River Basin*, 77 IMPLEMENTING INTEGRATED WATER RESOURCES MGMT. IN CENT. ASIA: NATO SCIENCE SERIES 37, 37-38 (2007). As of 2003, the BWO Amu Darya manages “90 hydrostructures, of which 35 are head intake structures, as well as 337 km of interstate canals.” *Id.* The BWO Amu Darya has four branches: one each in Tajikistan and Turkmenistan, and two in Uzbekistan. *Id.* at 38.

³⁴ *Strengthening IFAS*, *supra* note 28, at 18.

1. *Ineffective Water Management Hierarchy*

The current water resource management structure suffers from numerous shortcomings.³⁵ While the IFAS theoretically governs the ICWC and ICSD, in practice, the three organizations operate independently.³⁶ Because the BWO Amu Darya only manages water resources on the middle and lower reaches of the Amu Darya, the BWO Amu Darya cannot ensure that the upstream countries with their dams, reservoirs, and enormous hydroelectric potential abide by the prescribed water-withdrawal limits.³⁷ Furthermore, the ICWC lacks representation from the energy, environmental protection or meteorological sectors.³⁸ Excluding Afghanistan from the management structure could exacerbate regional tensions as Afghanistan wants to build hydroelectric dams.³⁹ Recognizing the faults of the current structure, the Heads of State of the IFAS member nations expressed their desire to improve the organizational and legal structure of IFAS in a 2009 Joint Statement.⁴⁰

2. *Inadequate Current Legal Framework*

The Almaty Agreement serves as the main multilateral water agreement in the Aral Sea Basin.⁴¹ Turkmenistan, Uzbekistan, Tajikistan, and Kyrgyzstan are all parties.⁴² The Agreement identifies cooperation in “joint water resources management” as a key purpose.⁴³ It provides for the “equal rights

³⁵ *Id.* at 4.

³⁶ *Id.*

³⁷ *Id.*

³⁸ *Id.* at 17.

³⁹ See Walter Klemm & Sayed Sharif Shobair, *The Afghan Part of Amu Darya Basin: Impact of Irrigation in Northern Afghanistan on Water Use in the Amu Darya Basin*, FAO REPORT TO UNECE, 10 (2010), http://www.unece.org/fileadmin/DAM/SPECA/documents/ecf/2010/FAO_report_e.pdf; *Strengthening IFAS*, *supra* note 28, at 29.

⁴⁰ *Strengthening IFAS*, *supra* note 28, at 20; Joint Statement, *supra* note 32, art. 2.

⁴¹ *Strengthening IFAS*, *supra* note 28, at 6.

⁴² Almaty Agreement, *supra* note 18.

⁴³ *Id.*

and responsibility” according to the standard of “rational and economic use of water resources.”⁴⁴ It governs according to the standard of “common principles for the whole region” and “equitable regulation” and preserved the water allocation regime from the Soviet Era.⁴⁵ The 1993 Kyzyl-Orda Agreement⁴⁶ and 2006 Sustainable Development Convention⁴⁷ echo the Almaty Agreement’s⁴⁸ emphasis on “rational use” of water resources through conservation and responsible management, not harming other Amu Darya States’ ability to use the river’s resources, and desire to adhere to the principles of international water law.⁴⁹

While the Almaty Agreement helped the nascent Republics develop a coherent water resource management framework, it was drafted quickly and requires revision.⁵⁰ For example, the Agreement fails to clearly define its scope and objectives, does not incorporate the “universally recognized legal principles and

⁴⁴ *Id.* pmb1. para. 2, art. 10.

⁴⁵ *Id.* pmb1. para. 3; see Masood Ahmad & Mahwash Wasiq, *Water Resource Development in Northern Afghanistan and Its Implications for Amu Darya Basin*, WORLD BANK WORKING PAPER NO. 36, 29-30 (2004), http://waterwiki.net/images/5/5d/WB-workin_papre_2004_Amu_Darya_Water_Resources.pdf.

⁴⁶ Agreement Between Republic of Kazakhstan, Kyrgyz Republic, Republic of Tajikistan, Turkmenistan, and Republic of Uzbekistan on Joint Activities in Addressing the Aral Sea and the Zone Around the Sea Crisis, Improving the Environment, and Enduring the Social and Economic Development of the Aral Sea Region, Mar. 26, 1993 [hereinafter Kyzyl-Orda Agreement] (establishing IFAS), *available at* <http://www.icwc-aral.uz/statute13.htm>; Framework Convention for the Protection of the Environment for Sustainable Development in Central Asia Between Republic of Kazakhstan, Kyrgyz Republic, Republic of Tajikistan, Turkmenistan and The Republic of Uzbekistan, arts. 3-7, 10, 16-17, (Nov. 22, 2006) [hereinafter Sustainable Development Convention], *available at* <http://www.ecolex.org/server2.php/libcat/docs/TRE/Multilateral/En/TRE143806.pdf>; *see Treaties: Record Details*, ECOLEX, http://www.ecolex.org/ecolex/ledge/view/RecordDetails;document_Framework%20Convention%20on%20Environmental%20Protection%20for%20Sustainable%20Development%20in%20Central%20Asia.html?DIDPFDSI?id=TRE-143806&index=treaties (last visited Dec. 22, 2012).

⁴⁷ Kyzyl-Orda Agreement, *supra* note 46, art. 1; Sustainable Development Convention, *supra* note 46, arts. 3-7, 10, 16-17.

⁴⁸ Almaty Agreement, *supra* note 18, art. 10.

⁴⁹ *Strengthening IFAS*, *supra* note 28, at 9-10.

⁵⁰ *Id.* at 8.

conceptual frameworks of water management such as reasonable and equitable use of transboundary waters . . . the ecosystem approach, [and] the basin principle of management.”⁵¹ It fails to establish protocols for “notification and consultations on planned activities, which may have a transboundary impact.”⁵² Further, the dispute resolution mechanisms of the Almaty Agreement do not define procedures.⁵³ Finally, the Almaty Agreement does not consider issues modern treaties consider essential such as the monitoring and protection of biological resources.⁵⁴

The Heads of the Central Asian States have promulgated joint declarations that, while non-binding, help to establish water policy in the region.⁵⁵ These declarations include Turkmenistan, Uzbekistan, Kyrgyzstan, and Tajikistan as parties and emphasize four main points with which the UNWC can assist: (1) strengthening regional water management institutions, especially the IFAS; (2) drafting a regional convention on transboundary watercourses; (3) increasing coordination between Amu Darya States and the international community; and (4) adhering to sustainable development principles.⁵⁶

The Nukus Declaration confirmed the desire of Amu Darya states to strengthen the regional water management bodies such as the IFAS.⁵⁷ In the 2002 Dushanbe Declaration, the heads of state affirmed their support for “implementing the Action Plan on the Aral Sea” and agreed to request a UN commission to

⁵¹ *Id.*

⁵² *Id.*

⁵³ *Id.*

⁵⁴ *Id.*

⁵⁵ *Id.* at 7.

⁵⁶ See generally *infra* notes 57-61 (illustrating how the joint declarations of the Central Asian States support the same water resource management principles as the UNWC).

⁵⁷ NUKUS DECLARATION OF THE STATES OF CENTRAL ASIA AND THE INTERNATIONAL ORGANIZATIONS ON PROBLEMS OF SUSTAINABLE DEVELOPMENT OF ARAL SEA BASIN, art. 4 (1995), reprinted in INTERNATIONAL FUND FOR SAVING THE ARAL SEA EXECUTIVE COMMITTEE, 10 YEARS IFAS (DECISIONS AND EVENTS), 62-66 (2003) [hereinafter Nukus Declaration], available at http://www.preventionweb.net/files/1773_VL102306.pdf.

assist the EC-IFAS in improving the systems of monitoring and information exchange for the “rational use” of water.⁵⁸

Central Asian leaders expressed their desire to create a regional convention for the “sustainable development of the Aral Sea basin,” in the 1995 Nukus Declaration,⁵⁹ the 2001 Tashkent Statement⁶⁰ and the 2009 Joint Statement.⁶¹ Since 2009, the impetus for drafting a regional convention on watercourses has grown.⁶² The IFAS even expressed its willingness to alter the “legal framework of IFAS.”⁶³

The Nukus Declaration also emphasized the importance of coordinating with international partners.⁶⁴ The 2004 Memorandum of Understanding between the IFAS and United Nations Economic Commission for Europe [UNECE] also stressed international cooperation.⁶⁵ 2008 marked a watershed

⁵⁸ DUSHANBE DECLARATION (2002), *reprinted in* INTERNATIONAL FUND FOR SAVING THE ARAL SEA EXECUTIVE COMMITTEE, 10 YEARS IFAS (DECISIONS AND EVENTS), 165-67 (2003) [hereinafter Dushanbe Declaration], *available at* http://www.preventionweb.net/files/1773_VL102306.pdf. The Heads of State pledged to “improve monitoring and exchange of information systems between the countries on water and other natural resources situation with the purpose of making timely and correct decisions on their rational use.” *Id.*

⁵⁹ Nukus Declaration, *supra* note 57, art. 2.

⁶⁰ TASHKENT STATEMENT ART. 3 (2001), *reprinted in* INTERNATIONAL FUND FOR SAVING THE ARAL SEA EXECUTIVE COMMITTEE, 10 YEARS IFAS (DECISIONS AND EVENTS), 135-39 (2003) [hereinafter Tashkent Statement], *available at* http://www.preventionweb.net/files/1773_VL102306.pdf. The Statement also expressed a willingness to “render humanitarian and other assistance” to help in the reconstruction of Afghanistan. *Id.* art. 6.

⁶¹ Joint Statement, *supra* note 32, arts. 2-3.

⁶² International High Level Conference, Almaty, Kaz., Oct. 25-27, 2011, “*Strengthening Transboundary Water Cooperation in Central Asia: The Role of International Water Law and the UNECE Water Convention*” *And the Workshop on the Protocol on Water and Health* ¶ 18 [hereinafter *Strengthening Transboundary Water Cooperation*], *available at* http://www.unece.org/fileadmin/DAM/env/water/cadialogue/docs/Almaty_Oct_2011/Report_En_final.pdf.

⁶³ Joint Statement, *supra* note 32, arts. 2-3.

⁶⁴ Nukus Declaration, *supra* note 57, pmbl.

⁶⁵ Memorandum of Understanding Between the United Nations Economic Commission for Europe/The United Nations Economic and Social Commission for Asia and the Pacific and The International Fund for Saving the Aral Sea, June 3, 2004, [hereinafter Memorandum of Understanding]

moment as the IFAS was granted observer status in the UN General Assembly,⁶⁶ and Germany launched the Berlin Process in April 2008.⁶⁷ Germany and the Central Asian States have pledged support for the Berlin Process.⁶⁸

The Nukus Declaration declared the Central Asian States' "[a]dherence to principles of sustainable development,"⁶⁹ as well as their "complete support" of the U.N. "[d]eclarations on sustainable development" including the Rio Declaration, "the international conventions on struggle against desertification, about global change of . . . climate, about preservation of . . . biological variety and about protection of transborder waters."⁷⁰ In the 1997 Almaty Declaration, the Central Asian States agreed to manage transboundary water resources using an ecosystem approach.⁷¹ The regional declarations highlight the cornerstones of the UNWC: cooperation, sustainable development, and increased engagement with the international community.⁷²

http://www.unece.org/fileadmin/DAM/oes/MOU/IFAS_MoU_Final_E_15Oct2010.pdf.

⁶⁶ G.A. Res. 63/133, U.N. GAOR, 63d Sess., U.N. Doc. A/RES/63/133 (Dec. 11, 2008) [hereinafter Observer Status Resolution], available at http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/63/133&Lang=E.

⁶⁷ *The Berlin Process*, GIZ, (2011), <http://www.waterca.org/berlin-process?lang=en>. The Berlin Process was launched "by the German Federal Government to the countries of Central Asia to support them in water management and to make water a subject of intensified transboundary cooperation." *Id.*

⁶⁸ Joint Declaration of the Conference *Blue Diplomacy for Central Asia held* in Berlin on cooperation within the scope of the Central Asia Water Initiative between the Federal Republic of Germany on the one side and the Republic of Kazakhstan, the Kyrgyz Republic, the Republic of Tajikistan, Turkmenistan and the Republic of Uzbekistan on the other (Mar. 7-8, 2012), [hereinafter Berlin Declaration], http://www.auswaertiges-amt.de/cae/servlet/contentblob/613050/publicationFile/166241/120308-Gem_Erklaerung_Wasserkonferenz.pdf. The EC-IFAS works with German partners. *Id.*, art. 6..

⁶⁹ Nukus Declaration, *supra* note 57, art. 1.

⁷⁰ *Id.* art. 2.

⁷¹ See Almaty Agreement, *supra* note 18.

⁷² See generally UNWC, *supra* note 11, arts. 5-9, 20, 24-25, 33 (describing key obligations under the UNWC).

B. Irrigated Agriculture as Source of Conflict

Soviet cotton production policies have resulted in four sources of tension in the Amu Darya Basin: (1) an inefficient irrigation network; (2) domestic water-use policies encouraging waste; (3) the disappearance of the Aral Sea; and (4) the development of Turkmenistan's Altyn Asyr Lake.

First, in the 1930's, Soviet central planners recognized the economic value of cotton and constructed a "massive irrigation network" to produce the "water-dependent crop" in the deserts of Central Asia.⁷³ Cotton production continues to dominate the Amu Darya Basin's agricultural sector.⁷⁴ Irrigated agriculture consumes approximately 53km³ of the Amu Darya's 78km³ surface water resources with approximately 50 percent of that amount lost due to evaporation, unlined canals, or other factors.⁷⁵ Second, the pricing structure of the cotton industry incentivizes inefficient water-management.⁷⁶ Typically, government cotton buyers pay a set amount for a certain quota of cotton, regardless of how efficiently the cotton was produced.⁷⁷ Additionally, water is usually heavily subsidized by the government in Turkmenistan and Uzbekistan.⁷⁸ Third, cotton production techniques diverted

⁷³ Vajpeyi, *supra* note 10, at 162; GRANIT *supra* note 1 at 22-23. In the Aral Sea Basin, there are approximately 500,000 km of canals. GRANIT *supra* note 1, at 16.

⁷⁴ GRANIT *supra* note 1 at 7. In the Amu Darya Basin, much land is used for irrigated agriculture: in Afghanistan 1.16 million hectares, in Kyrgyzstan 100,000 hectares, in Tajikistan, 500,000 hectares, in Turkmenistan 1,700,000 hectares, in Uzbekistan 2, 300,000 hectares. Stuart Horsman, *Afghanistan and Transboundary Water Management on the Amu Darya: A Political History*, CENTRAL ASIAN WATERS-PART 2: RESEARCH PAPERS, WATER & DEVELOPMENT PUBLICATIONS-HELSINKI UNIVERSITY OF TECHNOLOGY 64, available at http://water.tkk.fi/English/wr/research/global/material/CA_chapters/06-CA_Waters-Horsman.pdf. Cotton's nickname in the region is "White Gold." GRANIT *supra* note 1 at 23. Central Asian cotton accounts for nearly 15 percent of the globally-traded total. *Id.* at 22-23.

⁷⁵ ENVSEC, *supra* note 10, at 39; GRANIT *supra* note 1, at 16.

⁷⁶ GRANIT *supra* note 1, at 25.

⁷⁷ *Id.*

⁷⁸ *Id.* Turkmenistan has promised to provide free water through 2030. *Turkmen get free gas, power, water through '30: Leader of Turkmenistan*

the Amu Darya's waters from their Aral Sea delta to evaporate in the cotton fields.⁷⁹ As a result, approximately 90 percent of the Aral Sea's original surface waters vanished between 1960 and 2007.⁸⁰ The Aral's disappearance has caused severe environmental damage to the region.⁸¹ More than 33,000 km² of former seabed is now inundated with agricultural chemicals.⁸² Fourth, Turkmenistan's "Altyn Asyr" or "Golden Age" Lake is a massive, \$6 billion project⁸³ designed to fill the Karashor Depression in Northern Turkmenistan.⁸⁴ Some regional observers worry that Turkmenistan will divert fresh water from the Amu Darya to fill the Lake rather than using farm runoff, which could exacerbate tensions over between Turkmenistan and Uzbekistan.⁸⁵

C. Energy as Source of Conflict

Energy and water cause two main conflicts in the Amu Darya Basin: (1) current conflicts as the downstream countries, especially Uzbekistan, seek to preserve the current water withdrawal limits that provide them with approximately 80 percent of the Amu Darya's water resources for free and that force the upstream states, especially Kyrgyzstan and Tajikistan,

extends promise made in '93 for 10 more years, NBCNEWS.COM (Oct. 25, 2006), http://www.msnbc.msn.com/id/15421290/ns/world_news-wonderful_world/t/turkmen-get-free-gas-power-water-through/#.UNXFe3fhfZB.

⁷⁹ GRANIT *supra* note 1, at 15, 25.

⁸⁰ *Id.* at 15.

⁸¹ *Id.* at 15-16.

⁸² Sergei Vinogradov, *Managing transboundary water resources in the Aral Sea Basin: in search of a solution*, 1 INT'L J. GLOBAL ENV'T'L ISSUES no. 3/4, 345, 347 (2001), available at <http://www.internationalwaterlaw.org/bibliography/IJGEI/07ijgenvl2001v1n34vinogradov.pdf>.

⁸³ Richard Stone, *A New Great Lake—or Dead Sea?* 320 Science, No. 5879, 1002, 1002 (2008), available at <http://www.sciencemag.org/content/320/5879/1002.full>.

⁸⁴ Andrey G. Kostianoy et al., *Satellite Monitoring of Water Resources in Turkmenistan*, 15 INT'L WATER TECH. CONF. in Alexandria, Egypt, 10 (2011), available at <http://iwtc.info/wp-content/uploads/2011/07/G17.pdf>.

⁸⁵ Stone, *supra* note 83, at 1005.

to purchase electricity and gas from them⁸⁶; and (2) potential conflicts as the upstream countries, including Afghanistan,⁸⁷ seek to exploit the Amu Darya's immense hydroelectric potential,⁸⁸ which could harm the Uzbek agricultural sector.⁸⁹

In Central Asia, water and energy are used as political weapons.⁹⁰ For example, in 2000-2001, when Uzbekistan cut off energy supplies to Kyrgyzstan in order to secure a higher payment, Kyrgyzstan retaliated by threatening to open the gates of its dams to flood Uzbek farmland.⁹¹ The following year, when Uzbekistan changed the price for gas and electricity,⁹² Kyrgyzstan responded by attempting to charge Uzbekistan a fee for water originating on Kyrgyz territory.⁹³ When Uzbekistan closed most of the border checkpoints with Tajikistan and

⁸⁶ See Peyrouse, *supra* note 23; Michael Wines, *Grand Soviet Scheme for Sharing Water in Central Asia Foundering*, N.Y. TIMES, Dec. 9, 2002, <http://www.nytimes.com/2002/12/09/world/grand-soviet-scheme-for-sharing-water-in-central-asia-is-foundering.html?pagewanted=all&src=pm>.

⁸⁷ See STEPHEN C. MCCAFFREY, *THE LAW OF INTERNATIONAL WATERCOURSES* 277 (2d ed. 2007).

⁸⁸ *Dammed if they do*, ECONOMIST, Sept. 29, 2012, <http://www.economist.com/node/21563764> [hereinafter *Dammed if they do*]; see GRANIT, *supra* note 1, at 20-21. There is an installed capacity of 42,598 Megawatts [MW] in the Aral Sea Basin, with the potential to develop 524,400 MW. *Id.* at 21. The hydroelectric potential of the Amu Darya States is as follows: Afghanistan 400 MW, Kyrgyzstan 163,000 MW, Tajikistan 317,000 MW, Turkmenistan 2000 MW, and Uzbekistan 15,000 MW. *Id.* The installed capacity of hydropower is as follows: Afghanistan 595 MW, Kyrgyzstan, 10,778 MW, Tajikistan, 15,086 MW, Turkmenistan 0 MW, and Uzbekistan at 7278 MW. *Id.* In 2006, energy ministers from Tajikistan, Iran, and Afghanistan agreed to erect a power line that could provide electricity to Afghanistan, Iran, Pakistan, India, and China. ENVSEC, *supra* note 10, at 48.

⁸⁹ Diloram Abdullaeva, *Uzbekistan to lose \$600m a year due to Rogun Dam*, THE NATION, Sept. 24, 2012, <http://www.nation.com.pk/pakistan-news-newspaper-daily-english-online/business/24-Sep-2012/uzbekistan-to-lose-600m-a-year-due-to-rogun-dam>.

⁹⁰ Peyrouse, *supra* note 23.

⁹¹ Wines, *supra* note 86.

⁹² *Dammed if they do*, *supra* note 88.

⁹³ Gregory E. Heltzer, *Stalemate in the Aral Sea Basin: Will Kyrgyzstan's New Water Law Bring the Downstream Nations Back to the Multilateral Bargaining Table?*, 15 GEO. INT'L ENVTL. L. REV. 291, 306, 309 (2003). "Viewing water as an economic commodity is highly controversial in international watercourse law." McCaffrey, *supra* note 87, at 283-84.

Kyrgyzstan and mined parts of the Tajik border,⁹⁴ Tajikistan responded by covertly resuming construction on the Rogun Dam⁹⁵ and seeking alternate energy sources.⁹⁶ Unsurprisingly, in 2012, the leader of Uzbekistan claimed that hydropower projects such as the Rogun Dam “could lead to ‘not just serious confrontation, but even wars’”⁹⁷ because the alteration of the Amu Darya’s water flows could impact the Uzbek economy by as much as \$600 million per year and up to 336,000 lost jobs.⁹⁸

Afghanistan’s inflow contributions and growing population will impact the Basin’s future, although estimates of Afghanistan’s future water demands vary wildly, from 6 km³ to 16 km³.⁹⁹ No agreement explicitly forbids Afghanistan’s appropriation of Amu Darya water, although withdrawing water might violate Articles 7 and 16 of the 1958 Frontier Agreement which governed Amu Darya water allocation between the USSR and Afghanistan.¹⁰⁰ “As successor states to the USSR, the Soviet Successor States inherited the rights and responsibilities of the Agreements.”¹⁰¹ While Afghanistan is not currently included in any of the Amu Darya Basin’s water resource management bodies,¹⁰² both Afghanistan and the Soviet Successor States seek to actively engage each other on transboundary water

⁹⁴ *Dammed if they do*, *supra* note 88.

⁹⁵ Abdullaeva, *supra* note 89.

⁹⁶ Toralieva, *supra* note 23.

⁹⁷ *Dammed if they do*, *supra* note 88. Uzbekistan has courted regional leaders to block completion of the Rogun Dam. *Uzbek President to Visit Turkmenistan*, RADIO FREE EUROPE/RADIO LIBERTY [RFE/RL] (Sept. 30, 2012), <http://www.rferl.org/content/uzbek-president-to-visit-turkmenistan/24724530.html>.

⁹⁸ Abdullaeva, *supra* note 89.

⁹⁹ Horsman, *supra* note 74, 64, 67-68.

¹⁰⁰ *Id.* at 69; *see* Treaty concerning the regime of the frontier between the two countries, Afg. & U.S.S.R. (Jan. 18, 1958), in *U.N. Secretary-General, Legal problems relating to the use of international rivers*, ¶¶ 386-98, U.N. Doc. A/5409, from Yearbook of I.L.C. Vol. II (1974) [hereinafter Frontier Agreement], available at http://untreaty.un.org/ilc/documentation/english/a_5409.pdf.

¹⁰¹ Horsman, *supra* note 74, at 66; *see* Vinogradov, *supra* note 82, at 350.

¹⁰² Horsman, *supra* note 74, at 66.

resources.¹⁰³ For example, in 2011, Afghanistan indicated that it is “part of the solution for water related issues in Central Asia.”¹⁰⁴

III. HISTORY OF INTERNATIONAL WATERCOURSE LAW

Traditionally, uses of rivers and lakes have been divided into navigational and non-navigational categories.¹⁰⁵ While there is a well-developed body of international treaty law regarding navigational uses of transboundary watercourses, “there is still no universal treaty in force that regulates the non-navigational uses of international watercourses.”¹⁰⁶ However, through the work of legal scholars and the outcomes of court decisions, customary principles have emerged.¹⁰⁷ The UNWC¹⁰⁸ represents a codification of the customary principles of international transboundary non-navigable watercourse law.¹⁰⁹

¹⁰³ *Strengthening IFAS*, *supra* note 28, at 29; Horsman, *supra* note 74, at 71.

¹⁰⁴ *Strengthening Transboundary Water Cooperation*, *supra* note 62, ¶ 17.

¹⁰⁵ Salman M.A. Salman, *The Helsinki Rules, the UN Watercourses Convention and the Berlin Rules: Perspectives on International Water Law*, 23 INT’L J. WATER RESOURCES DEV. 625, 625 (Dec., 2007), available at <http://www.internationalwaterlaw.org/bibliography/articles/general/Salman-BerlinRules.pdf>.

¹⁰⁶ *Id.*

¹⁰⁷ *Id.*

¹⁰⁸ UNWC, *supra* note 11.

¹⁰⁹ Salman, *supra* note 105, at 625; *Status of the United Nations Convention on the Law of the Non-Navigational Uses of International Watercourses*, UNITED NATIONS TREATY COLLECTION (Oct. 26, 2013, 5:11 AM), [hereinafter *Status of the UN Conv.*] http://treaties.un.org/Pages/ViewDetails.aspx?src=UNTSOnline&tabid=2&mtdsg_no=XXVII-12&chapter=27&lang=en#Participants.

A. International Law Generally

Article 38(1) of the Statute of the International Court of Justice establishes the four sources of international law.¹¹⁰ International law features three primary sources: (1) International conventions (treaties), (2) “international custom, as evidence of a general practice accepted as law, and (3) the general principles of law recognized by civilized nations.” Secondary sources of international law include: “judicial decisions and the teachings of the most highly qualified publicists.”¹¹¹ To be considered binding, a customary law must be evidenced both by widespread state practice and by *opinio juris*—states acting in a certain way because the state feels legally bound to do so.¹¹² Evidence of customary law is discovered in “agreements, statutes and decrees, diplomatic correspondence, statements of states’ representatives in international organizations and conferences, and so forth.”¹¹³

B. Customary International Watercourse Law

The primary customary obligations of international watercourse law are the obligations of states to use transboundary water resources in an “*equitable and reasonable* manner, and to *avoid causing significant harm* to other riparian states.”¹¹⁴ The theoretical foundation for these obligations is the principle of limited territorial sovereignty.¹¹⁵ Colloquially, limited territorial sovereignty means “the freedom to swing one’s

¹¹⁰ SERGEI VINOGRADOV ET AL., TRANSFORMING POTENTIAL CONFLICT INTO COOPERATION POTENTIAL: THE ROLE OF INTERNATIONAL WATER LAW, 9-10 (2003), available at <http://unesdoc.unesco.org/images/0013/001332/133258e.pdf>.

¹¹¹ *Id.* at 10 (quoting Statute of the International Court of Justice, art. 38 (1), available at http://www.icj-cij.org/documents/index.php?p1=4&p2=2&p3=0#CHAPTER_II).

¹¹² VINOGRADOV ET AL., *supra* note 110, at 9-10 (emphasis in original).

¹¹³ *Id.* at 10.

¹¹⁴ *Id.* at 12; See McCaffrey, *supra* note 87, at 135-47.

¹¹⁵ See McCaffrey, *supra* note 87 at 133-37. Limited territorial sovereignty is one of four main theories underlying international non-navigable watercourse law. See *id.* at 111-112.

fist ends where the other person's nose begins.”¹¹⁶ Thus, “a state may develop its portion of an international watercourse” as long as any harm it causes to resource-sharers are minor and any injured States are duly compensated.¹¹⁷

The Helsinki Rules on the Uses of the Waters of International Rivers,¹¹⁸ which were drafted by the International Law Association (ILA) in 1966¹¹⁹ were the “first general codification of the law of international watercourses” and represent the “single most authoritative and widely quoted set of rules” governing international watercourses until the adoption of the UNWC.¹²⁰ The Helsinki Rules codified the principle of equitable and reasonable use¹²¹ as well as the “obligation not to cause harm” to other States sharing the resource.¹²²

Judicial decisions also played an integral role in the development of customary transboundary watercourse law.¹²³ In the principal case interpreting the modern law of non-navigable transboundary watercourses, the *Gabčíkovo-Nagymoros* Case, the International Court of Justice (ICJ) expressly endorsed the UNWC.¹²⁴ The case centered on a 1977 bilateral treaty between Hungary and Czechoslovakia, which concluded with the “goal of constructing” hydroelectric dams on the Danube River.¹²⁵ The

¹¹⁶ *Id.* at 146.

¹¹⁷ *Id.*

¹¹⁸ Int'l L. Ass'n 52nd Conference, Helsinki, Fin., Aug. 1966, *Helsinki Rules on the Uses of the Waters of International Rivers*, (1967) [hereinafter Helsinki Rules], available at http://www.internationalwaterlaw.org/documents/intldocs/helsinki_rules.html.

¹¹⁹ VINOGRADOV ET AL., *supra* note 110, at 12. The earliest attempts to codify the law of non-navigable international watersources included the Institute of International Law's (IIL) 1911 Declaration of Madrid and the subsequent Salzburg Resolution. *Id.*; Salman, *supra* note 105, at 628.

¹²⁰ Salman, *supra* note 105, at 630.

¹²¹ VINOGRADOV ET AL., *supra* note 110, at 13. “Each basin State is entitled, within its territory, to a reasonable and equitable share in the beneficial uses of the waters of an international drainage basin.” Helsinki Rules *supra* note 118, art. 4.

¹²² Salman, *supra* note 105, at 630.

¹²³ VINOGRADOV ET AL., *supra* note 110, at 13.

¹²⁴ *Gabčíkovo-Nagymoros* Project (Hung./Slovk.), 1997 I.C.J. 7 (Sept. 25, 1997), available at <http://www.icj-cij.org/docket/files/92/7375.pdf>.

¹²⁵ VINOGRADOV ET AL., *supra* note 110 at 13-14.

goal was not realized because Hungary unilaterally stopped working on the project.¹²⁶ Slovakia (Czechoslovakia) retaliated by diverting “for its use and benefit between 80 and 90 percent of the [transboundary] waters” of the Danube.¹²⁷ The ICJ ordered the project restarted and each of the parties to compensate the other.¹²⁸ The ICJ viewed the UNWC as codifying the customary law of transboundary non-navigable watercourses¹²⁹ and recognized the preeminence of the principle of equitable and reasonable utilization as expressed in the Helsinki Rules.¹³⁰

IV. U.N. WATERCOURSES CONVENTION

The UNWC “is intended to be a framework instrument of global applicability.”¹³¹ It guides future regional or watercourse specific agreements, assists implementing existing agreements by providing interpretation of key terms, can govern if the particular watercourse has no watercourse-specific agreement, and complements environmental conventions such as the United Nations Convention on Combating Desertification (UNCCD).¹³² The substantive provisions of the UNWC include “equitable and reasonable utilization and participation,” the “obligation not to cause significant harm . . . to other watercourse states,” the “general obligation to cooperate,” and to exchange information on a regular basis.¹³³

¹²⁶ *Id.* at 14.

¹²⁷ *Id.*

¹²⁸ *Id.*

¹²⁹ McCaffrey, *supra* note 87, at 150.

¹³⁰ Salman, *supra* note 105, at 634.

¹³¹ Stephen C. McCaffrey, *Foreword to ALISTAIR RIEU-CLARKE ET AL., UN WATERCOURSES CONVENTION USER'S GUIDE 10* (2012), available at [http://www.gwp.org/Global/ToolBox/References/UN%20Watercourses%20Convention;%20User%20Guide%20\(IHP-HELP%20Centre%20for%20Water%20Law,%20Policy%20and%20Science,%20Dundee%20University,%202012\).pdf](http://www.gwp.org/Global/ToolBox/References/UN%20Watercourses%20Convention;%20User%20Guide%20(IHP-HELP%20Centre%20for%20Water%20Law,%20Policy%20and%20Science,%20Dundee%20University,%202012).pdf).

¹³² World Wildlife Fund, *Everything you need to know about the UN Watercourses Convention*, 14-15 (2009), http://www.unwater.org/downloads/wwf_un_watercourses_brochure_for_web_1.pdf (Flavia Loures et al.).

¹³³ VINOGRADOV ET. AL., *supra* note 110, at 84-85.

A. U.N. Watercourses Convention Status

In 1997, the U.N. General Assembly adopted the Convention on the Law of the Non-navigational Uses of International Watercourses.¹³⁴ The vote was 106 for, 3 against and twenty-seven abstentions.¹³⁵ The UNWC remained open for signature until May 20, 2000,¹³⁶ has not yet entered into force, and currently has sixteen signatories and thirty-one parties.¹³⁷ While the signing period has closed, states may still become parties to the UNWC by depositing an instrument of ratification, accession, or approval with the U.N. Treaty Depository.¹³⁸ The UNWC will enter into force on the “ninetieth day following the date of deposit of the thirty-fifth instrument of ratification, acceptance, approval or accession.”¹³⁹

B. Principles of the U.N. Watercourses Convention

The preamble to the UNWC categorizes the UNWC as a codification treaty designed to track the “progressive development” of the international law regarding the non-navigational uses of international watercourses.¹⁴⁰ The preamble also notes that the UNWC is a framework convention designed for the “promotion of the optimal and sustainable utilization” of international watercourses¹⁴¹ and emphasizes the importance of

¹³⁴ *Id.* See G.A. Res 51/229, U.N. Doc. A/RES/51/229 (May 21, 1997), available at http://www.un.org/ga/search/view_doc.asp?symbol=A/res/51/229.

¹³⁵ U.N. GAOR, 51st Sess., 99th plen. mtg. at 7, U.N. Doc. A/51/PV.99 (May 21, 1997) (vote on draft resolution A/51/PV.99 which was adopted as G.A. Res 51/229) [hereinafter UNWC Voting Record]. After the official tallied the votes at 103 for, Fiji, Nigeria, and Belgium stated they had intended to vote in favor. *Id.*

¹³⁶ See Stephen C. McCaffrey, *Procedural History: Convention on the Law of the Non-Navigational Uses of International Watercourses*, Audiovisual Library of International Law (2008), <http://legal.un.org/avl/ha/clnuiw/clnuiw.html>.

¹³⁷ *Status of the UN Conv.*, *supra* note 108.

¹³⁸ *Id.*

¹³⁹ *Id.*; see McCaffrey, *supra* note 136.

¹⁴⁰ UNWC, *supra* note 11, pmb. para. 3.

¹⁴¹ *Id.* pmb. para. 5.

cooperation and “good-neighbourliness” in transboundary watercourse law.¹⁴² Finally, the preamble references the “principles and recommendations adopted by the United Nations Conference on Environment and Development of 1992 in the Rio Declaration.”¹⁴³

The scope of the UNWC establishes the nature and extent of the transboundary watercourse obligations parties undertake.¹⁴⁴ A “watercourse” is defined in Article 2 as “a system of surface waters and groundwaters constituting by virtue of their physical relationship a unitary whole and normally flowing into a common terminus.”¹⁴⁵ An “international watercourse” is defined as “a watercourse, parts of which are situated in different States.”¹⁴⁶ The UNWC applies to a “watercourse system” including the glaciers that form the headwaters as well as every place the water originating in that system flows or is stored.¹⁴⁷

The operative provisions of the UNWC express the obligations of parties. Articles 5, 6, and 7 of the UNWC articulate the substantive provisions of the UNWC derived from customary international watercourse law.¹⁴⁸ Articles 8, 9, and 11-19 oblige parties to cooperate, share information, and inform other riparians about planned projects on the watercourse.¹⁴⁹ Articles 20-26 describe the environmental obligations of parties.¹⁵⁰ Finally, Article 33 explains the UNWC’s dispute settlement mechanisms.¹⁵¹

¹⁴² *Id.* pmb. para. 6.

¹⁴³ *Id.* pmb. para. 8.

¹⁴⁴ Rieu-Clarke et al., *supra* note 131, at 67.

¹⁴⁵ UNWC, *supra* note 11, art. 2.

¹⁴⁶ *Id.* art. 2.

¹⁴⁷ ATTILLA TANZI & MAURIZIO ARCARI, THE UNITED NATIONS CONVENTION ON THE LAW OF INTERNATIONAL WATERCOURSES 58 (2001).

¹⁴⁸ UNWC, *supra* note 11, arts. 5-7.

¹⁴⁹ *Id.* arts. 8, 9, 11-19.

¹⁵⁰ *Id.* arts. 20-26.

¹⁵¹ *Id.* art. 33.

V. APPLYING THE UN WATERCOURSES CONVENTION TO THE AMU DARYA RIPARIANS

As a codification of customary international watercourse law, the UNWC expresses the current international understanding of the law of non-navigable transboundary watercourses and would be particularly helpful in addressing the conflicts stemming from the “water-energy nexus.” The UNWC has already demonstrated considerable influence on international watercourse treaties, both bilateral and multilateral.¹⁵² Since the UNWC has not yet entered into force, its provisions would be unenforceable as treaty obligations against the Amu Darya states that are not parties to it.¹⁵³ However, the UNWC would apply to the Amu Darya states as a matter of binding customary international law.¹⁵⁴ A treaty rule may bind states not parties to a treaty when “the treaty rule is declaratory of pre-existing custom[.]”¹⁵⁵ The UNWC obliges the Amu Darya states as customary international law because, as a codification treaty, it is declaratory of existing customary law.¹⁵⁶ Its definitions and

¹⁵² Salman M.A. Salman, *The United Nations Watercourses Convention Ten Years Later: Why Has its Entry into Force Proven Difficult?*, 32 WATER INT’L 1, 12 (Mar. 2007), available at <http://www.internationalwaterlaw.org/bibliography/articles/general/Salman-UNWatercoursesConventionTenYears.pdf>.

¹⁵³ Vienna Convention on the Law of Treaties, arts. 18, 24-25, May 23, 1969, 1155 U.N.T.S. 331 (entered into force Jan. 27, 1980) [hereinafter Vienna Convention], available at http://untreaty.un.org/ilc/texts/instruments/english/conventions/1_1_1969.pdf. Whatever Amu Darya States that become Parties to the UNWC would have an obligation not to defeat the object and purpose of the UNWC in between expressing consent to be bound by the UNWC and the UNWC’s entry into force. *Id.* art. 18.

¹⁵⁴ LORI F. DAMROSCH ET AL., INTERNATIONAL LAW: CASES AND MATERIALS 118 (5th ed. 2009).

¹⁵⁵ *Id.* (citing North Sea Continental Shelf, 1969 I.C.J. 3, 41 (Feb. 20); Military and Paramilitary Activities in and Against Nicaragua (Nicar. v. U.S.), 1986 I.C.J. 14, 14 (June 27)).

¹⁵⁶ UNWC, *supra* note 11, pmb. para. 3; Stephen C. McCaffrey, *Introductory Note: Convention on the Law of the Non-Navigational Uses of International Watercourses*, Audiovisual Library of International Law (2008), <http://legal.un.org/avl/ha/clnuiw/clnuiw.html>.

substantive obligations were taken from the Helsinki Rules, which are considered customary international watercourse law,¹⁵⁷ the UNWC was drafted over the course of decades, which provided sufficient time for the UNWC to encapsulate customary international law, the UNWC received widespread support in the U.N. General Assembly voting record,¹⁵⁸ and the ICJ has explicitly endorsed the UNWC as customary international law in the *Gabčíkovo-Nagymoros* Case.¹⁵⁹

A. Ratification Status among Riparians

Currently, only Uzbekistan is a party to the UNWC, acceding to it on September 4, 2007.¹⁶⁰ Since its accession, it has urged other states sharing the Amu Darya to accede to the Convention.¹⁶¹ Of the Amu Darya riparians, Uzbekistan abstained from voting while Afghanistan, Turkmenistan, and Tajikistan were absent.¹⁶² The other Amu Darya states, including Afghanistan, have endorsed the principles underlying the UNWC and have all expressed their willingness to strengthen cooperation under the auspices of the United Nations Economic Commission for Europe (UNECE) and its 1992 Convention on transboundary watercourses.¹⁶³

¹⁵⁷ See Salman, *supra* note 105, at 630.

¹⁵⁸ See UNWC Voting Record *supra* note 135; see *Status of the UN Conv.*, *supra* note 109.

¹⁵⁹ See *supra* note 124.

¹⁶⁰ *Status of the UN Conv.*, *supra* note 109.

¹⁶¹ *Strengthening Transboundary Water Cooperation*, *supra* note 62, ¶ 16.

¹⁶² Alistair Rieu-Clarke et al., UN WATERCOURSES CONVENTION USER'S GUIDE 37 (2012), available at <http://dl.dropboxusercontent.com/u/391260/UN%20Watercourses%20Convention%20-%20User%27s%20Guide.pdf>. The vote of Kyrgyzstan is not accounted for and was thus probably one of the absentee states. *Id.*

¹⁶³ United Nations Convention on the Protection and Use of Transboundary Watercourses and International Lakes, Mar. 17, 1992, 1936 U.N.T.S. 269 (entered into force Oct. 6, 1996) [hereinafter UNECE Convention], available at <http://www.unece.org/fileadmin/DAM/env/water/pdf/watercon.pdf>; *Strengthening Transboundary Water Cooperation*, *supra* note 62, ¶¶ 12-18.

B. The Amu Darya States Should Become Parties to the UNWC

Adopting the UNWC as a framework convention for managing the Amu Darya's water resources will be a valuable tool assisting the Amu Darya countries in addressing problems stemming from the "water-energy nexus." Adopting the UNWC would preempt conflicts over using the Amu Darya's waters for irrigated agriculture or energy by providing the riparians the scientific tools needed to evaluate, measure, and allocate water resources appropriately to each riparian for particular uses, would provide dispute resolution mechanisms to resolve conflicts amicably when they do arise, and would encourage international cooperation and inject international expertise into the Amu Darya's water-sharing issues. The Amu Darya States should adopt the UNWC as a framework convention forming the basis for management of the water resources in the Amu Darya Basin for seven reasons: (1) the UNWC would facilitate drafting a transboundary water convention targeted at the Amu Darya; (2) the UNWC would facilitate strengthening the Amu Darya's water management institutions; (3) the UNWC would assist with engaging Afghanistan; (4) the UNWC would help the Amu Darya States meet their obligations under regional and international agreements; (5) the UNWC would not affect the rights and obligations of Amu Darya States; (6) the UNWC would help the Amu Darya States meet their monitoring and information-sharing obligations; and (7) the UNWC would provide a set of dispute resolution procedures.

1. *Becoming Parties to the UNWC Would Facilitate Drafting a Regional, Basin-Level Treaty*

Adopting the UNWC would assist the drafting of a regional convention on the Amu Darya in three ways: (1) providing a set of common definitions of key terms, (2) creating a framework

from which to engage other States, and (3) establishing a platform from which to engage the international community.

The Amu Darya States have repeatedly stated their desire to draft a Basin-level treaty for the region.¹⁶⁴ For example, a major component of Aral Sea Basin Program-3 (“ASBP-3”) involves improving the legal framework of water resources management through drafting a regional treaty.¹⁶⁵ To update the legal scheme for the Amu Darya, the IFAS and Amu Darya States have chosen to develop a “Regional Water Convention for the Aral Sea basin.”¹⁶⁶ Because “the problem of shared use of water resources in Central Asia is becoming a serious obstacle in settling regional and local conflicts,” the Amu Darya States realized that they “have no choice but to find a way of forming a regional agreement on the sharing of water resources.”¹⁶⁷ The Amu Darya States emphasized their goal of drafting a regional agreement in the Nukus Declaration, Tashkent Statement and 2009 Joint Statement.¹⁶⁸

Adopting the UNWC would help the Amu Darya riparians draft a regional convention by providing a set of common definitions.¹⁶⁹ The 1992 Almaty Agreement, 1993 Kyzyl-Orda Agreement, and 2006 Sustainable Development Convention all fail to define a “watercourse,” “transboundary watercourse,” or “watercourse system.”¹⁷⁰ Agreeing to use the UNWC’s definitions of these key terms would simplify drafting the proposed regional convention, as the negotiators would be conducting negotiations with defined terms and with a common

¹⁶⁴ See Nukus Declaration, *supra* note 57, art. 1; see also Tashkent Statement, *supra* note 60, art. 3.

¹⁶⁵ ASBP-3, *supra* note 30, at 10-11.

¹⁶⁶ *Id.* at 16.

¹⁶⁷ *Id.* at 86.

¹⁶⁸ Nukus Declaration, *supra* note 57; Tashkent Statement, *supra* note 60; Joint Statement, *supra* note 32.

¹⁶⁹ Dinara Ziganshina, *The Role and Relevance of the 1997 UN Convention to the Countries of Central Asia and Afghanistan in the Aral Sea Basin*, TOWARDS THE 6 WORLD WATER FORUM — COOPERATIVE ACTIONS FOR WATER SECURITY INTERNATIONAL CONFERENCE, http://www.cawater-info.net/6wwf/conference_tashkent2011/files/discussion_note_role_convention_eng.pdf.

¹⁷⁰ *Id.* at 23-25; *Strengthening IFAS*, *supra* note 28, at 11-12.

understanding of the scope and applicability of the instrument.¹⁷¹ Turkmenistan, Tajikistan, Uzbekistan, and Kyrgyzstan have already endorsed the UNWC's "ecosystem approach" to water resource management in the Nukus and Almaty Declarations.¹⁷² The application of the UNWC to a "watercourse system" or "drainage basin" comports with the Almaty Agreement's requirement of "rational" water use and the desire among the Central Asian States to manage the Amu Darya according to international water law principles.¹⁷³ Becoming parties to the UNWC would clarify the relationship between the Almaty Agreement's undefined "rational and economic use"¹⁷⁴ in the context of the UNWC's obligation of "equitable utilization and participation."¹⁷⁵ The list of factors to be considered in evaluating "equitable utilization" contained in Article 6 of the UNWC would prove especially useful to the Amu Darya States in updating the water resource allocation model from one centered on cotton production and political interdependence to one that recognizes and weighs the needs of the various economic sectors of independent States.¹⁷⁶

The UNWC would assist in drafting a regional agreement by serving as a "universally agreed legal framework from which to start negotiations."¹⁷⁷ The UNWC's core obligations of cooperation, "equitable and reasonable utilization and participation," and the "obligation not to cause significant harm" would serve as useful bases from which the Amu Darya riparians could update the legal framework of the Amu Darya.¹⁷⁸ These

¹⁷¹ Ziganshina, *supra* note 169, at 11-12, 23-24.

¹⁷² Almaty Declaration, Feb. 28, 1997, in International Fund for Saving the Aral Sea Executive Committee [EC-IFAS] 10 years IFAS (decisions and events) 91-92 (2003) [hereinafter Almaty Declaration], available at http://www.preventionweb.net/files/1773_VL102306.pdf; Nukus Declaration, *supra* note 57.

¹⁷³ See Almaty Agreement, *supra* note 18, art. 10.

¹⁷⁴ See *id.*

¹⁷⁵ See UNWC, *supra* note 11, arts. 5-6.

¹⁷⁶ See UNWC, *supra* note 11, art. 6.

¹⁷⁷ Alistair Rieu-Clarke & Flavia Rocha Loures, *Still not in Force: Should States Support the 1997 UN Watercourses Convention?*, 18 REV. EUR. CMTY. & INT'L ENV'T'L L. 185 (2009).

¹⁷⁸ Ziganshina, *supra* note 169, at 12-15, 23-25.

core principles would guide the Amu Darya riparians in determining how best to sustainably manage the watercourse.¹⁷⁹

Adopting the UNWC would help the Amu Darya riparians engage with the international community because the parties would use internationally-accepted definitions, norms, and understandings as the basis of negotiations.¹⁸⁰ Engagement with the international community constitutes a core component in each of the Nukus Declaration, 2004 Memorandum of Understanding, U.N. General Assembly IFAS observer status resolution, and the Berlin Process.¹⁸¹

2. *Becoming Parties to the UNWC Would Facilitate Strengthening the Amu Darya's Water Management Institutions*

Acceding to the UNWC would help the Amu Darya states reform and strengthen the institutions responsible for water management in the Amu Darya Basin.¹⁸² The 1995 Nukus Declaration, 2002 Dushanbe Declaration, and 2009 Joint Statement all state the intent of the Amu Darya states to improve and strengthen the organization of the water management hierarchy in order to improve resource management and information-sharing in the Amu Darya Basin.¹⁸³ The UNWC

¹⁷⁹ *Id.* at 23-25.

¹⁸⁰ Rieu-Clarke & Loures, *supra* note 177, at 27-31; *Strengthening IFAS*, *supra* note 28, at 20-23, 37.

¹⁸¹ Observer Status Resolution, *supra* note 66; Nukus Declaration, *supra* note 57; *Berlin Process*, *supra* note 67; Memorandum of Understanding, *supra* note 65.

¹⁸² Agreement Between the Government of Republic of Kazakhstan, The Government of Kyrgyz Republic, The Government of Republic of Tajikistan, the Government of Turkmenistan and the Government of Republic of Uzbekistan about the Status of the International Fund for Saving the Aral Sea (IFAS) and Its Organizations, April 9, 1999, *in* International Fund for Saving the Aral Sea Executive Committee [EC-IFAS] 10 years IFAS (decisions and events), 109-14 (2003) [hereinafter IFAS Agreement], available at http://www.preventionweb.net/files/1773_VL102306.pdf; see *Strengthening IFAS*, *supra* note 28, at 3-5, 14-20, 23-29.

¹⁸³ Dushanbe Declaration, *supra* note 58; Nukus Declaration, *supra* note 57; Joint Statement, *supra* note 32.

would help the Amu Darya states streamline and strengthen water management in the Amu Darya in three ways: (1) improving cooperation among the IFAS, ICWC, and ICSD, (2) coordinating information-sharing and monitoring efforts across economic sectors, and (3) defining the responsibilities and hierarchy of the IFAS, ICWC, and ICSD.¹⁸⁴

Article 8 of the UNWC elaborates the general obligation of states to cooperate in managing transboundary watercourses.¹⁸⁵ It also contemplates establishing joint commissions in order to attain the “optimal utilization” and “adequate protection” of the watercourse.¹⁸⁶ Becoming parties to the UNWC would oblige the Amu Darya states to ensure that the management hierarchy of the Amu Darya would cooperate to realize the obligations of contained in Articles 5-7 of the UNWC.¹⁸⁷ Under the UNWC, the IFAS, ICWC, and ICSD would be obligated to work together, improving coordination among the three organizations.¹⁸⁸

Article 9 of the UNWC establishes an obligation on parties to share information relating to the Basin as a whole, considering the relevant stakeholders.¹⁸⁹ Currently, the ICSD and ICWC need not collaborate with the energy, meteorological, or environmental protection sectors.¹⁹⁰ Furthermore, the ICWC’s mandate only extends to the “middle and lower parts” of the Amu Darya, not to the headwaters or tributaries.¹⁹¹ The lack of coordination caused by the absence of the energy, environmental protection, and meteorological sectors from the ICWC results in shortages and surpluses of water because the ICWC does not incorporate projected precipitation amounts or future energy or agricultural demands into its water allocation plans.¹⁹² UNWC

¹⁸⁴ See *Strengthening IFAS*, *supra* note 28, at 3-4.

¹⁸⁵ UNWC, *supra* note 11, art. 8.

¹⁸⁶ *Id.*

¹⁸⁷ *Id.* arts. 5-8; *Strengthening IFAS*, *supra* note 28, at 35-37.

¹⁸⁸ UNWC, *supra* note 11, arts. 5-7; *Strengthening IFAS*, *supra* note 28, at 35-37.

¹⁸⁹ UNWC, *supra* note 11, art. 9.

¹⁹⁰ *Strengthening IFAS*, *supra* note 28, at 17.

¹⁹¹ *Id.* at 17-18.

¹⁹² *Id.*

Article 9 would add teeth to the IFAS regulations that require the IFAS to implement environmental monitoring systems and engage in joint environmental protection initiatives.¹⁹³ Adopting the UNWC approach would enable the IFAS, ICWC, and ICSD to streamline water resource management.¹⁹⁴

The UNWC would also help the Amu Darya states define the responsibilities for the IFAS, ICWC, and ICSD.¹⁹⁵ Currently, these three organizations, though operating independently, have overlapping mandates and do not have delineated duties.¹⁹⁶ Defining the roles of these organizations under the auspices of UNWC Articles 20-26¹⁹⁷ would forestall disputes within these organizations and would help the Amu Darya states more effectively meet their obligations under various Multilateral Environmental Treaties like the UNCCD,¹⁹⁸

¹⁹³ UNWC, *supra* note 11, art. 9; *Strengthening IFAS*, *supra* note 28, at 14; Regulations of the International Fund for Saving the Aral Sea, (Apr. 9, 1999), in INTERNATIONAL FUND FOR SAVING THE ARAL SEA EXECUTIVE COMMITTEE [EC-IFAS] 10 YEARS IFAS (DECISIONS AND EVENTS), 116-20 (2003) [hereinafter IFAS Regulations], available at http://www.preventionweb.net/files/1773_VL102306.pdf.

¹⁹⁴ See *Strengthening IFAS*, *supra* note 28, at 21-23, 35-37.

¹⁹⁵ Ziganshina, *supra* note 169, at 26-27; *Strengthening IFAS*, *supra* note 28, at 23-29.

¹⁹⁶ *Strengthening IFAS*, *supra* note 28, at 15, 17.

¹⁹⁷ UNWC, *supra* note 11, arts. 20-26.

¹⁹⁸ See, e.g., Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa, arts. 10, 16, Oct. 14, 1994, S. Treaty Doc. No. 104-29, 1954 U.N.T.S. 3, (entered into force Dec. 26, 1996) [hereinafter UNCCD], available at <http://www.unccd.int/Lists/SiteDocumentLibrary/conventionText/conv-eng.pdf>; UNCCD, *Update on Ratification of the UNCCD*, SECRETARIAT OF THE UN CONVENTION TO COMBAT DESERTIFICATION (May 12, 2012) [hereinafter *UNCCD Ratification*], available at, <http://www.unccd.int/Lists/SiteDocumentLibrary/convention/ratification-eng.pdf>; UNCCD, *Subregional Action Programme for the Central Asian Countries on Combating Desertification within the UNCCD Context*, UNCCD (Sept. 3, 2003) [hereinafter UNCCD/SRAP], <http://www.unccd.int/ActionProgrammes/srapcd-eng2003.pdf>. The UNCCD is an outgrowth of the Rio Declaration and directly utilizes its development principles. UNCCD, *About the Convention*, UNCCD (2012), <http://www.unccd.int/en/about-the-convention/Pages/About-the-Convention.aspx>; see also Günther Handl, *Declaration of the United Nations Conference on the Human Environment Stockholm*, (Jun. 16,

as well as their obligations under the Almaty Agreement,¹⁹⁹ and the IFAS Regulations.²⁰⁰

3. *The Amu Darya States Have Already Endorsed the Principles of the UNWC*

The Amu Darya states explicitly support the principles of the UNWC for the following reasons: (1) the Amu Darya states have endorsed the Rio Declaration and Agenda 21, (2) the UNWC is derived from the Rio Declaration and Agenda 21, (3) Integrated Water Resources Management is a key tenet of Agenda 21, (4) the Amu Darya states have endorsed Integrated Water Resources Management, and (5) Integrated Water Resources Management is a core principle of the UNWC.²⁰¹

The Heads of State of the Central Asian nations approved the principles of the Rio Declaration²⁰² in the Nukus Declaration and, in the Almaty Declaration, indicated their support of Agenda 21 and the ecosystem approach to water resource management.²⁰³ The Rio Declaration of 1992 indicates the

1972), *Rio Declaration on Environment and Development Rio de Janeiro*, (Jun. 14, 1992), AUDIOVISUAL LIB. OF INT'L L. (2008), available at <http://untreaty.un.org/cod/avl/ha/dunche/dunche.html>.

¹⁹⁹ See Almaty Agreement, *supra* note 18.

²⁰⁰ See IFAS Regulations, *supra* note 193.

²⁰¹ See generally *infra* notes 202-206, 219, 223 (describing obligations under various Multilateral Environmental Agreements, the UNWC, and various regional agreements).

²⁰² See generally United Nations Conference on Environment and Development, Rio de Janeiro, Braz., Jun. 3-14, 1992, *Rio Declaration on Environment and Development* (Jun. 14, 1992), in REPORT OF THE UNITED NATIONS CONFERENCE ON ENVIRONMENT AND DEVELOPMENT, U.N. Doc. A/Conf.151/26 (Vol. I) Annex I, (Aug. 12, 1992) [hereinafter Rio Declaration], available at <http://www.un.org/documents/ga/conf151/aconf15126-1annex1.htm>; G.A. Res. 47/190, U.N. Doc. A/RES/47/190 (Dec. 22, 1992) (adopted without vote), available at <http://www.un.org/Depts/dhl/resguide/r47.htm> (listing the Principles of the Rio Declaration).

²⁰³ Nukus Declaration, *supra* note 57; Almaty Declaration, *supra* note 172; *Protection of the quality and supply of freshwater resources: application of integrated approaches to the development, management and use of water resources*, UN ENV'T'L

PROGRAMME (1992), [hereinafter Agenda 21] <http://www.unep.org/>

United Nations approach to sustainable development and environmental protection and Agenda 21 is the action plan adopted by the United Nations General Assembly to implement the Rio Declaration.²⁰⁴

They also emphasized the need for regional cooperation, especially with international organizations in the Tashkent Declaration, Ashgabat Declaration, Dushanbe Declaration, and the Memorandum of Understanding²⁰⁵ as well as the need for holistic, sustainable development in the 1992 Almaty Agreement, 1993 Kyzyl-Orda Agreement, and 2006 Sustainable Development Convention.²⁰⁶

The Preamble of the UNWC notes that the UNWC's substantive obligations are derived from the core principles elaborated in the Rio Declaration and Agenda 2 and are all dedicated to the sustainable use of water resources.²⁰⁷ The first principle of the Rio Declaration indicates that human beings should be the center of a sustainable development regime.²⁰⁸ The UNWC incorporates this principle into its considerations of the relationship between "equitable utilization" and "no harm" where there is a conflict of uses by giving "vital human needs" a

documents.multilingual/default.asp?DocumentID=52&ArticleID=66&l=en; G.A. Res. 47/190, U.N. Doc. A/RES/47/190 (Dec. 22, 1992) (adopted without vote) (approving agenda 21), *available at* <http://www.unep.org/Documents.Multilingual/Default.asp?documentid=52>.

²⁰⁴ Rio Declaration, *supra* note 202, at paras. 1-4; Agenda 21, *supra* note 203, at paras. 1.1-1.7.

²⁰⁵ Tashkent Declaration for the UN Special Programme for the Economies of Central Asia [SPECA], (Mar. 26, 1998) [hereinafter Tashkent Declaration], *available at* http://www.unece.org/fileadmin/DAM/SPECA/documents/tashkent/tashkent_declaration_en.pdf; Ashgabat Declaration, Apr. 9, 1999, *in* INTERNATIONAL FUND FOR SAVING THE ARAL SEA EXECUTIVE COMMITTEE [EC-IFAS] 10 YEARS IFAS (DECISIONS AND EVENTS) 130-32 (2003) [hereinafter Ashgabat Declaration], *available at* http://www.preventionweb.net/files/1773_VL102306.pdf; Dushanbe Declaration, *supra* note 58; Memorandum of Understanding, *supra* note 65.

²⁰⁶ *See generally* Almaty Agreement, *supra* note 18; Kyzyl-Orda Agreement, *supra* note 46; Sustainable Development Convention, *supra* note 46.

²⁰⁷ UNWC, *supra* note 11, pmbl. para. 5.

²⁰⁸ Rio Declaration, *supra* note 202, Principle 1.

special place.²⁰⁹ Principle 4 of the Rio Declaration indicates that environmental protection measures should form an integral part of any development program.²¹⁰ Articles 20-26 of the UNWC elaborate how environmental protection provisions should be considered in sustainable development.²¹¹ Additionally, Article 6 of the UNWC includes environmental considerations as factors in “equitable utilization.”²¹² Principle 6 of the Rio Declaration gives a special place to developing countries and the Preamble of the UNWC notes the “special situation and needs of developing countries.”²¹³ Principle 7 of the Rio Declaration compels states to cooperate to preserve and restore ecosystems.²¹⁴ Article 8 of the UNWC requires states to cooperate on water resource management issues.²¹⁵ Principle 9 of the Rio Declaration indicates that states should share scientific and technical information.²¹⁶ Similarly, Article 9 of the UNWC also contains provisions on the regular exchange of data and information.²¹⁷

Article 18.1 of Agenda 21 demands the sustainable development of transboundary freshwater resources, utilizing the principles of Integrated Water Resources Management (IWRM).²¹⁸ IWRM “calls for the holistic management of freshwater as a finite and vulnerable resource, and the integration of sectoral water plans and programs within the framework of economic and social policy.”²¹⁹ IWRM involves drafting long-term sustainability strategies involving multiple stakeholders such as energy and agricultural stakeholders, the implementation

²⁰⁹ See UNWC, *supra* note 11, arts. 5-7, 10 (explaining the substantive obligations under the UNWC).

²¹⁰ Rio Declaration, *supra* note 202, arts. 5-7, 10.

²¹¹ UNWC, *supra* note 11, arts. 20-26.

²¹² *Id.* art. 6.

²¹³ Rio Declaration, *supra* note 202, Principle 6; UNWC pmb. para. 7, *supra* note 11.

²¹⁴ Rio Declaration, *supra* note 202, Principle 7.

²¹⁵ UNWC, *supra* note 11, art. 8.

²¹⁶ Rio Declaration, *supra* note 202, Principle 9.

²¹⁷ UNWC, *supra* note 11, art. 9.

²¹⁸ Agenda 21, *supra* note 203, art. 18.1.

²¹⁹ A. Dan Tarlock, *Integrated Water Resources Management: Theory and Practice*, in *IMPLEMENTING INTEGRATED WATER RESOURCES MANAGEMENT IN CENTRAL ASIA* 7 (Springer 2007).

of infrastructure projects, and developing “appropriate institutional, legal and financial mechanisms” coupling sustainable water use with economic growth.²²⁰ IWRM evaluates a river on the watercourse or system level.²²¹ Furthermore, the Central Asian states endorsed IWRM as the chosen standard for sustainable water resource management for the Amu Darya in 2011.²²² By selecting IWRM as the method for evaluating sustainable water resource use, in accordance with their support of the Rio Declaration, the Amu Darya states also endorsed one of the key principles of the UNWC.²²³

The 1993 Kyzyl-Orda Agreement and the 2006 Sustainable Development Convention similarly give holistic, integrated management of resources primacy of place in managing water resources to protect the environment.²²⁴ Furthermore, IWRM constitutes a key component of the current Aral Sea Basin Program-3,²²⁵ incorporating an ecosystem-wide approach to water management in the Aral Sea Basin.²²⁶ ASBP-3 has been adopted by all member countries of the IFAS.²²⁷ Proposed IWRM projects include information exchange programs, developing regional and local plans for water use, as well as improving irrigation systems and management.²²⁸ Water management officials with the ICWC support IWRM as the most appropriate and effective water management system for the Amu Darya.²²⁹

By endorsing the principles of Agenda 21, which include IWRM, the UNWC affirms that IWRM is the preferred method

²²⁰ *Id.* at 7-8.

²²¹ *Id.* at 6.

²²² *Strengthening Transboundary Water Cooperation*, *supra* note 62, ¶ 18.

²²³ UNWC, *supra* note 11, Annex.

²²⁴ Kyzyl-Orda Agreement, *supra* note 46, art 1; Sustainable Development Convention, *supra* note 46, arts. 4-6.

²²⁵ ASBP-3, *supra* note 30, at 4.

²²⁶ Strengthening IFAS, *supra* note 28, at 8. The ASBP-3 program is designed to be implemented from 2011-2015. ASBP-3, *supra* note 30, at 4.

²²⁷ *ASBP-3 has been signed by all countries of IFAS*, EC IFAS (May 17, 2012), <http://www.ec-ifas.org/>.

²²⁸ ASBP-3, *supra* note 30, at 13-14.

²²⁹ Khudaiberganov, *supra* note 33, at 42.

of managing water resources.²³⁰ The UNWC incorporates IWRM into its substantive obligations through its emphasis on cooperation and information exchange, as well as its balanced approach to “equitable utilization” as well as “equitable participation” of water resources.²³¹ Becoming a party to the UNWC would demonstrate the commitment of the Amu Darya states to the principles they claim to endorse.²³²

4. *Becoming Parties to the UNWC Would Provide a Set of Useful Dispute Resolution Procedures*

Further, becoming a party to the UNWC would enable Amu Darya riparians to utilize the UNWC’s flexible dispute resolution mechanisms.²³³ Under the Almaty Agreement, the ICWC resolves disputes internally and allows an impartial third party to be called to settle the dispute, but the Almaty Agreement provides no procedural details.²³⁴ The UNWC would allow the Amu Darya riparians to choose from a panoply of dispute settlement options.²³⁵

5. *Becoming Parties to the UNWC Would Facilitate Engaging Afghanistan*

The UNWC would help the former Soviet states engage Afghanistan by applying to international watercourse the same sustainable management principles to which the Soviet successor states and Afghanistan are parties under the Frontier Agreement²³⁶ and several multilateral environmental [“MEA”] treaty obligations.²³⁷

²³⁰ UNWC, *supra* note 11, Annex.

²³¹ UNWC, *supra* note 11, arts. 5-7.

²³² See Ziganshina, *supra* note 169, at 23-25.

²³³ *Id.* at 22.

²³⁴ *Id.* at 21-22.

²³⁵ See UNWC, *supra* note 11, art. 33.

²³⁶ Frontier Agreement, *supra* note 100.

²³⁷ See, e.g., UNCCD, *supra* note 198; Convention on Climate Change, May 9, 1992, 1771 U.N.T.S. 107 [hereinafter UNCCC], available at

Nearly 20 percent of the Amu Darya's total flow originates in Afghanistan.²³⁸ However, Afghanistan has only developed approximately 2km³ of the 14.5 km³ of the Amu Darya's waters that pass through its territory.²³⁹ Afghanistan is seeking to develop its watercourse resources, but is not yet a party to a regional watercourse agreement with the other Amu Darya states.²⁴⁰ However, both Afghanistan and the Amu Darya riparians have expressed an interest in more robust regional cooperation.²⁴¹ For example, the IFAS members have recognized the importance of Afghanistan and expressed a desire for closer engagement with Afghanistan.²⁴² Afghanistan conveyed an interest in incorporating the principles of international watercourse law into budding partnerships with other Central Asian nations at regional conferences on water management in the Aral Sea Basin in 2009 and 2010²⁴³ and in 2011.²⁴⁴

The long-term interests of the region would be best served by incorporating Afghanistan into the regional water management framework, which could be facilitated by the UNWC.²⁴⁵ As an introductory measure, cooperation could begin by including Afghanistan in regional structures at the technical and scientific level.²⁴⁶ The Amu Darya riparians could include Afghanistan in the negotiations for drafting the regional water

<http://unfccc.int/resource/docs/convkp/conveng.pdf>; Convention on Biological Diversity, June 5, 1992, 1760 U.N.T.S. 79 [hereinafter UNCBD], *available at* <http://www.cbd.int/doc/legal/cbd-en.pdf>.

²³⁸ GRANIT, *supra* note 1, at 15; *Strengthening Transboundary Water Cooperation*, *supra* note 62, ¶ 17.

²³⁹ ENVSEC, *supra* note 10, at 44; GRANIT, *supra* note 1, at 15. Some studies estimate Afghanistan's current water withdrawal at 5 km³. Horsman, *supra* note 74, at 64; Klemm & Shobair, *supra* note 39, at 4.

²⁴⁰ See Ziganshina, *supra* note 169, at 4; Horsman, *supra* note 74, at 66-67; Klemm & Shobair, *supra* note 39, at 10.

²⁴¹ *Strengthening IFAS*, *supra* note 28, at 29; Horsman, *supra* note 74, at 71.

²⁴² ENVSEC, *supra* note 10, at 42.

²⁴³ *Id.* at 77.

²⁴⁴ TRANSBOUNDARY WATER COOPERATION IN CENTRAL ASIA, *supra* note 62, ¶¶ 12-18.

²⁴⁵ Horsman, *supra* note 74, at 70-72.

²⁴⁶ *Id.* at 72.

management convention for the Amu Darya.²⁴⁷ Rapprochement with Afghanistan on transboundary watercourses was recognized in the 1958 Frontier Agreement and the Soviet Successor States, “inherited the rights and responsibilities of the Agreement[]”²⁴⁸ including the responsibility of cooperatively managing the Amu Darya.²⁴⁹

Furthermore, Afghanistan and the Soviet Successor states are already mutually bound by several Multilateral Environmental Agreement (MEA) treaty obligations including the UNCCC, UNCBD, and UNCCC.²⁵⁰ Ecosystem-wide management and sustainable development principles of IWRM underlie each of the MEA agreements as well as the UNWC.²⁵¹ Afghanistan, as a party to the UNCCD, UNCBD, and UNCCC has already endorsed the principles of IWRM underlying the UNWC just as the former Soviet states have.²⁵² Thus, the Amu Darya Riparians would be able to approach Afghanistan with a common understanding of their obligations to cooperate and sustainably manage the resources of the Amu Darya while utilizing the principles of IWRM and incorporating an ecosystem approach.²⁵³

6. *Becoming Parties to the UNWC Would Not Affect the Rights and Obligations of Amu Darya States*

The UNWC will not affect the rights and obligations of the Amu Darya states for two reasons: (1) The UNWC does not alter the rights and obligations of transboundary watercourse states

²⁴⁷ *Strengthening IFAS*, *supra* note 28, at 29, 32, 40.

²⁴⁸ Horsman, *supra* note 74, at 66.

²⁴⁹ Vinogradov, *supra* note 82, at 350.

²⁵⁰ UNCCD, *supra* note 198; UNCCC, *supra* note 237; UNCBD, *supra* note 237.

²⁵¹ See UNCCD, *supra* note 198, pmb. para. 13, arts. 3-6, 9, 11-12; UNCCC, *supra* note 237, pmb. ¶ 22, arts. 3-5; UNCBD, *supra* note 237, pmb. paras. 20-23, arts. 5-7, 10; UNWC, *supra* note 11, pmb. paras. 5-8, arts. 5-8, 20-26; see also Tarlock, *supra* note 219, at 8.

²⁵² UNCCD Ratification, *supra* note 198.

²⁵³ Rieu-Clarke & Loures, *supra* note 177, at 188-92; Loures et al., *supra* note 132, at 18-21.

without their consent, and (2) Turkmenistan and Uzbekistan are already parties to regional Conventions with stricter obligations than the UNWC.²⁵⁴

Becoming a party to the UNWC will not supersede the rights and obligations of the current water management regime²⁵⁵ because the UNWC does not abrogate existing agreements without the consent of the parties.²⁵⁶ Article 3 of the UNWC explains that, if the obligations of the UNWC and those of existing agreements governing a watercourse conflict, then the obligations in the prior instruments govern.²⁵⁷ The UNWC's substantive obligations of equitable and reasonable utilization and participation, the obligation not to cause significant harm, and the obligations to cooperate and exchange information comport, but do not conflict, with the substantive obligations contained in the Almaty Agreement.²⁵⁸

In addition, Turkmenistan and Uzbekistan have already acceded to the UNECE Convention on Transboundary Watercourses,²⁵⁹ which entails stricter obligations than the UNWC.²⁶⁰ Because the UNWC is a framework convention while the UNECE Convention is a regional convention, the UNECE Convention describes its obligations and duties with a higher level of detail.²⁶¹ Because the UNECE and UNWC Conventions

²⁵⁴ *Status of the Convention on the Protection and Use of Transboundary Watercourses and International Lakes*, UNITED NATIONS TREATY COLLECTION (Nov. 11, 2013, 5:01 AM) [hereinafter *UNECE Treaty Status*], http://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVI-1-5&chapter=27&lang=en.

²⁵⁵ Ziganshina, *supra* note 169, at 5.

²⁵⁶ UNWC, *supra* note 11, art. 3.

²⁵⁷ *Id.*

²⁵⁸ *See id.* arts. 5-10; Almaty Agreement, *supra* note 18, arts. 1-7.

²⁵⁹ *UNECE Treaty Status*, *supra* note 254.

²⁶⁰ ATTILA TANZI, THE RELATIONSHIP BETWEEN THE 1992 UNECE CONVENTION ON THE PROTECTION AND USE OF TRANSBOUNDARY WATERCOURSES AND INTERNATIONAL LAKES AND THE 1997 UN CONVENTION ON THE LAW OF THE NON NAVIGATIONAL USES OF INTERNATIONAL WATERCOURSES 53 (UNECE Task Force on Legal and Administrative Aspects 2000), *available at* <http://www.unece.org/fileadmin/DAM/env/water/publications/documents/conventiontotal.pdf>.

²⁶¹ *Id.* at 54.

complement each other, becoming a party to both would help strengthen the legal regime of the Amu Darya Basin and would help the legal framework of the Amu Darya accord with international norms.²⁶²

7. *Becoming Parties to the UNWC Would Improve Information-Sharing and Monitoring Procedures*

The obligation to monitor and exchange information in Article 9 of the UNWC comports with the similar obligations Amu Darya states have already undertaken under the following instruments: (1) the UNCCD, (2) the UNCCC, (3) the UNCBD, and (4) ASBP-3.²⁶³

Under the UNCCD, states have an obligation to cooperate in the joint management, and conservation of land and water resources.²⁶⁴ The UNCCD is implemented primarily through action programs both on a regional and national level.²⁶⁵ The Subregional Action Programme for Central Asia under the UNCCD explicitly identifies the Aral Sea Basin as a problem area and identifies cooperation with the IFAS and ICWC as a key to ecological management.²⁶⁶ It also explicitly references the Nukus Declaration.²⁶⁷ The UNCCD has a Committee on Science and Technology (CST) that assists parties with their obligation to exchange information and cooperate.²⁶⁸ Currently, the Amu Darya states have an information database called the Regional

²⁶² *Id.*

²⁶³ See generally *infra* notes 264, 272-274 (describing obligations under the UNCCD, UNCCC, UNCBD, ASBP-3).

²⁶⁴ Loures et al., *supra* note 132, at 20.

²⁶⁵ *Id.*; U.N. Convention to Combat Desertification, Fact Sheet 1 An Introduction to the United Nations Convention to Combat Desertification 1, <http://www.unccd.int/Lists/SiteDocumentLibrary/Publications/factsheets-eng.pdf> (last visited Dec. 22, 2012).

²⁶⁶ UNCCD/SRAP, *supra* note 198, at 2.

²⁶⁷ *Id.* at 2, 4.

²⁶⁸ U.N. Convention to Combat Desertification, Fact Sheet 9 Institutions and procedures of the Convention 1-2 [hereinafter Fact Sheet 9], <http://www.unccd.int/Lists/SiteDocumentLibrary/Publications/factsheets-eng.pdf> (last visited Dec. 22, 2012).

Information System on Water and Land Resources in the Aral Sea Basin (CAREWIB).²⁶⁹ Becoming a party to the UNWC would apply the reporting obligations, which the Amu Darya riparians have under the UNCCD to international watercourses under Articles 8 and 9 of the UNWC.²⁷⁰ The Amu Darya states could integrate the CAREWIB database with the UNCCD's CST to meet their obligations under the UNCCD and the UNWC.²⁷¹

The UNWC would assist the Amu Darya states in meeting their obligations under Articles 4, 5, and 7 of UNCCC by encouraging cooperation among riparians and by ensuring that development projects do not injure the Amu Darya ecosystem or communities dependent on it.²⁷²

The UNWC would help the Amu Darya riparians meet their obligations to sustainably manage ecosystems under the UNCBD through the UNWC's provisions on notification and consultation regarding planned measures, preventing and mitigating transboundary pollution, cooperation and information exchange.²⁷³

The Amu Darya States included programs to meet their duties under MEAs in the ASBP-3.²⁷⁴ A main component of ASBP-3 is environmental protection.²⁷⁵ For example, ASBP-3 section 2.1.2 deals with sustainable wetlands management, desertification reduction, and biodiversity restoration.²⁷⁶ Programs in cluster 2.2 all relate to the management of biodiversity.²⁷⁷ Obligations under the UNWC would complement those of the MEAs and would assist the Amu Darya riparians in

²⁶⁹ Dinara Zigashina, *International Water Law in Central Asia: Commitments, Compliance and Beyond*, 20 J. WATER L. 96, 103-04 (2006), available at <http://discovery.dundee.ac.uk/portal/files/95307/Zigashina%20International%20water%20law%20in%20CA%20JWL%202009%2096-107.pdf>.

²⁷⁰ Loures et al., *supra* note 132, at 20.

²⁷¹ *Id.*; Fact Sheet 9, *supra* note 268; Zigashina, *supra* note 269.

²⁷² Loures et al., *supra* note 132, at 18.

²⁷³ *See generally* UNWC, *supra* note 11, arts. 8, 11-19, 20-26 (describing UNWC obligations).

²⁷⁴ ASBP-3, *supra* note 30 at 14-15.

²⁷⁵ *Id.*

²⁷⁶ *Id.* at 46-47.

²⁷⁷ *Id.* at 14, 62-67..

sharing environmental information in order to determine “equitable utilization” of water resources.²⁷⁸

C. Objections to Ratification

The Amu Darya riparians might object to becoming a party to the UNWC for several reasons: (1) fears that the UNWC would favor competing states, (2) worries about the general obligation to cooperate as well as prior notification about planned measures, (3) concerns about how the UNWC will affect the existing legal framework, (4) worries about the potentially mandatory fact finding, and (5) concerns about the potential loss of sovereignty over waters in their territory.

The downstream states of Turkmenistan and Uzbekistan might fear that “equitable utilization” favors the upstream riparians’ ability to develop hydroelectric resources, undermining Uzbekistan’s stranglehold over Tajik and Kyrgyz winter electricity supplies.²⁷⁹ However, both Uzbekistan and Turkmenistan are parties to the UNECE Convention, which also establishes an obligation to sustainably use transboundary watercourse resources.²⁸⁰

On the other hand, the upstream states of Tajikistan, Kyrgyzstan, and Afghanistan might worry that the “no-harm” rule prevents them from developing their hydropower potential while forcing them to provide free water to Turkmenistan and Uzbekistan.²⁸¹ However, under the UNWC, the upstream riparians would be entitled to exploit the Amu Darya’s hydroelectric potential so long as their projects did not cause harm to Uzbekistan and Turkmenistan.²⁸² If a dispute arose regarding whether harm had occurred, the flexible dispute

²⁷⁸ Loures et al., *supra* note 132, at 18-21.

²⁷⁹ See Salman, *supra* note 152, at 8-10.

²⁸⁰ Status of the Convention on the Protection and Use of Transboundary Watercourses and International Lakes, U.N.T.S. Status of Treaties, http://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVI1-5&chapter=27&lang=en (last visited Dec. 22, 2012).

²⁸¹ Salman, *supra* note 152, at 8-10.

²⁸² *Id.*

resolution mechanisms of UNWC Article 33 would resolve it to the satisfaction of the parties.²⁸³

Tajikistan, Afghanistan, and Kyrgyzstan might hesitate to become parties to the UNWC because they might fear that the obligation of prior notification, especially for planned projects, would be overly onerous.²⁸⁴ However, the UNWC simply codifies the principle of customary international environmental law of “prior and timely notification” contained in Principle 19 of the Rio Declaration for “activities that may have a significant adverse transboundary environmental effect.”²⁸⁵ Thus, the upstream riparians already have a duty of prior notification under the regional declarations and under binding MEAs and so becoming a party to the UNWC would not entail any new obligations on their part.²⁸⁶

Any potential concern about the UNWC altering existing agreements in some undesired way is also unfounded because the UNWC does not alter any conflicting legal framework without the consent of the parties.²⁸⁷

Furthermore, any worries that the Amu Darya riparians might have about the UNWC's dispute resolution process are also unfounded.²⁸⁸ Under the UNWC, the parties would be free to choose their desired settlement mechanism and the only mandatory type of dispute resolution, fact finding, must be administered impartially and in good faith so as not to favor one disputant over another.²⁸⁹

Finally, the upstream Amu Darya riparians might worry about giving up sovereignty over waters that flow in their territory.²⁹⁰ However, any purported sovereignty certain riparians

²⁸³ See UNWC, *supra* note 11, art. 33.

²⁸⁴ Salman, *supra* note 152, at 9-10.

²⁸⁵ MCCAFFREY, *supra* note 87, at 471-72; Rio Declaration, *supra* note 200, Principle 19.

²⁸⁶ See generally McCaffrey, *supra* note 87, at 464-80 (discussing prior duty of notification).

²⁸⁷ Salman, *supra* note 152, at 10-11; see also UNWC, *supra* note 11, art. 3.

²⁸⁸ Salman, *supra* note 152, at 11-12.

²⁸⁹ *Id.* at 11; see also UNWC, *supra* note 11, art. 33.

²⁹⁰ Salman, *supra* note 152, at 12.

might claim to enjoy would only be illusory because the theory that any state “owns” shared waters has been discredited.²⁹¹ While the Amu Darya states would enjoy limited territorial sovereignty over the waters in the Amu Darya Basin, their use of the waters would be governed by the UNWC's substantive obligations to manage the Basin in a sustainable way using an ecosystem approach, according to the principles of international transboundary watercourse law.²⁹² Limited territorial sovereignty would mean just that for the Amu Darya Riparians—the ability for each individual riparian to do what it wishes with the waters in the Basin—within the limits of the UNWC.²⁹³

CONCLUSION

Because of the recent discovery of abundant natural resources in Central Asia, various world powers have been racing to develop regional transportation, energy and water links in the region.²⁹⁴ The potential source of strife most likely to upset this balance is a dispute over the fresh water of the Amu Darya Basin. Thus, sustainable management of international water resources in the Amu Darya Basin, which contains the majority of the region's fresh water, is of paramount importance. Since the collapse of the Soviet Union, the waters of the Amu Darya have been a source of conflict between the upstream and downstream states seeking to exploit the Amu Darya's bounty for competing uses.²⁹⁵ The Soviet Union also left behind a management framework unsuitable for the modern reality. To remedy the

²⁹¹ *Id.*

²⁹² See UNWC, *supra* note 11, arts. 5-8.

²⁹³ See generally *supra* notes 115-117; UNWC, *supra* note 11, arts. 5-7 (describing limited territorial sovereignty and substantive obligations under the UNWC).

²⁹⁴ John Herbst & William Courtney, After the Afghan Pullout, the Dangers for Central Asia, RFE/RL, Feb. 17, 2013, available at <http://www.rferl.org/content/central-asia-afghan-pullout/24904747.html>; Turkmen, Tajik, Afghan Presidents Sign Railroad Agreement, RFE/RL, Mar. 20, 2013, available at <http://www.rferl.org/content/afghan-tajik-turkmen-railroad/24934483.html>.

²⁹⁵ ENVSEC, *supra* note 10, at 34-36, 53.

situation, the Amu Darya states have been actively soliciting aid from the United Nations as well as other international organizations in developing a suitable international watercourse management scheme.²⁹⁶ Becoming parties to the UNWC would provide the Amu Darya riparians with many benefits, such as modernizing the Basin's current legal scheme. As a framework agreement, the UNWC is not suitable as a final agreement, but would complement any future, regional agreement such as the UNECE Convention or other regional agreement drafted by the Amu Darya states. However, if the status quo is maintained, laments like that of the Uzbek farmer Qubay Ortiqov will become all too common: “[w]e planted wheat, but the harvest was not good, and it was because of insufficient water.”²⁹⁷

²⁹⁶ ASBP-3, *supra* note 30, at 5, 8.

²⁹⁷ Muhammad Tahir, Amu Darya fertile for conflict, ASIA TIMES ONLINE Aug. 2, 2011, available at http://www.atimes.com/atimes/Central_Asia/MH02Ag01.html (quoting Uzbek farmer Qubay Ortiqov).