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An Assessment of Law and Policy Measures for
Environmental Protection on Transboundary Waterways in
the Aral Basin

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Contents

Introduction	2
Transboundary Legal Framework in Aral Basin	2
Regional Transboundary Water Law.....	2
Applicable International Convention & Customary Law.....	3
Development Banks Influence on Water & Environmental Management	4
Legislative Tools & Controls for Environmental Protection.....	4
Aral Basin Early Post Independence Environmental Protection Framework.....	5
Environmental Impact Assessments	6
Ongoing Aral Basin Environmental Protection & Improvement Framework	8
Balancing Contrasting Environmental Outcomes under Aral Basin Law	13
Conclusions	15

Introduction

Water is a precious resource in the Central Asian States of Kyrgyzstan, Tajikistan, Turkmenistan, Kazakhstan and Uzbekistan.¹ The origin of water resource management challenges in the region and decline of the Aral Sea can be traced to two key events: massive regional expansion of irrigation projects without consideration of water budgets (particularly from the main river systems, Syr Draya [north] and Amu Draya [south]); and the transition from a centrally-planned economy to a market economy following the breakup of the Soviet Union.

Precipitation in the region is low, on the order of 100 mm/year in the desert and steppe areas of the three downstream countries (Turkmenistan, Kazakhstan and Uzbekistan), rising to 400 mm/year in the two mountainous upstream countries (Kyrgyzstan and Tajikistan). The various states share the Aral Basin watershed which culminates in the evapotranspiration-controlled Aral Sea². The Aral Sea was once the world's fourth largest inland water body; however, it has seen dramatic volumetric decline to about 10% of its 1960 volume³, in a situation referred to as the Aral Sea Crisis. An International legal framework has been developed to solve problems of joint management of water of interstate sources, create favourable conditions for solving social and economic problems, and to allow mitigation and stabilization of ecological stresses which originated as a consequence of water resources depletion.⁴ A series of projects have been implemented in pursuit of these goals, and this paper assesses whether tools available and utilised in the region are facilitating the desired environmental outcomes.

Transboundary Legal Framework in Aral Basin

Regional Transboundary Water Law

The legal framework governing transboundary water resources in the region is complex. It has been developed successively through at least eight bilateral and multi-lateral agreements between affected states in the region⁵. These agreements have evolved through time with social, environmental and legal developments.

¹ Afghanistan has interest in the Amu Darya. However, Afghanistan is not party to most multilateral agreements discussed in this paper. The focus of this paper will be on Kyrgyzstan, Tajikistan, Turkmenistan, Kazakhstan and Uzbekistan.

² See [summary information on the Aral Sea drainage basin](#).

³ Gaybullaev, B., Chen, S. C., & Gaybullaev, D. (2012). Changes in water volume of the Aral Sea after 1960. *Applied Water Science*, 2(4), 285-291.

⁴ E.g. The purpose statement from Agreement Between the Republic of Kazakhstan, the Kyrgyz Republic, the Republic of Tajikistan, Turkmenistan, and the Republic of Uzbekistan on Cooperation in the Field of Joint Management of the Use and Conservation of Water Resources of Interstate Sources, Almaty, 18 February 1992, online: <https://www.caee.utexas.edu/prof/mckinney/papers/aral/agreements/ICWC-Feb18-1992.pdf> (an unofficial English translation) [1992 Almaty Agreement] [[1992 Almaty Agreement](#)].

⁵ Agreement Between the Republic of Kazakhstan, the Kyrgyz Republic, the Republic of Tajikistan, Turkmenistan, and the Republic of Uzbekistan on Cooperation in the Field of Joint Management of the Use and Conservation of Water Resources of Interstate Sources, Almaty, 18 February 1992, online: <https://www.caee.utexas.edu/prof/mckinney/papers/aral/agreements/ICWC-Feb18-1992.pdf> (an unofficial English translation) [1992 Almaty Agreement] [[1992 Almaty Agreement](#)]; Agreement Between the Republic of Kazakhstan, the Kyrgyz Republic, the Republic of Tajikistan, Turkmenistan, and the Republic of Uzbekistan on Joint Actions for Addressing the Problems of the Aral Sea and Its Coastal Area, Improving the Environment, and Ensuring the Social and Economic Development of the Aral Sea Region,

After the dissolution of the Soviet Union in 1991, the Central Asian States had to rapidly develop agreements for their shared water resource under newly established decentralised economies. This came with many challenges including differing views; competing interests; and several inherited issues such as inefficient water allocation, pricing and incentives, degraded and outdated infrastructure, economic constraints, and a stressed transboundary watershed environment requiring significant remedial action. Following the formation of independent states, additional agreements provided a legal framework with a broader focus on water resource management, environmental preservation, and sustainable development.

Applicable International Convention & Customary Law

States are variably party to international agreements relating to water and environmental issues⁶ which adds additional complexity to the legal context in the region. Generally, regional agreements

Kzyl-Orda, 26 March 1993, online: <https://www.internationalwaterlaw.org/documents/regionaldocs/araal-sea.html> (an unofficial English translation) [[1993 Kzyl-Orda Agreement](#)];

Agreement Between Turkmenistan and the Republic of Uzbekistan on Cooperation over Water Management Issues, Chardjev, 16 January 1996, online: <https://cis-legislation.com/document.fwx?rgn=25361> (an unofficial English translation) [[1996 Chardjev Agreement](#)]

Agreement Between the Government of the Republic of Kazakhstan, the Government of the Kyrgyz Republic and the Government of the Republic of Uzbekistan on Cooperation in the Area of Environment and Rational Nature Use, Bishkek, 17 March 1998, online: [CaWaterInfo /www.cawaterinfo.net/library/eng/l/nature_use.pdf](http://www.cawaterinfo.net/library/eng/l/nature_use.pdf) (an unofficial English translation) [[1998 Biskek Agreement](#)];

Framework Convention on Environmental Protection for Sustainable Development in Central Asia, Ashgabad, 22 November 2006, online: <https://iea.uoregon.edu/treaty-text/4542> [[2006 Ashgabad Agreement](#)];

Agreement on Informational Cooperation in the Field of Ecology and the Environmental Protection, Moscow, 11 September 1998 (among others ratified by Kazakhstan, the Kyrgyz Republic, and Tajikistan), online: <https://cis-legislation.com/document.fwx?rgn=9456> (an unofficial English translation) [[1998 Informational Cooperation Agreement](#)];

Agreement on cooperation in the field of environmental protection among the member-states of the Commonwealth of Independent States, Minsk, 31 May 2013 (among others ratified by Tajikistan, Turkmenistan, Kazakhstan, Uzbekistan, Kyrgyz Republic), online: <https://iea.uoregon.edu/treaty-text/4954> (an unofficial English translation) [[2013 Minsk Agreement](#)]; and

Agreement Between the Government of the Republic of Kazakhstan, Government of the Kyrgyz Republic, Government of the Republic of Tajikistan, Government of Turkmenistan and Government of the Republic of Uzbekistan on the Status of the International Fund of Rescuing of the Aral Sea (IFRAS) and its organizations, April 9, 1999, online: <https://cis-legislation.com/document.fwx?rgn=5007> [[1999 IFRAS Establishment Agreement](#)].

⁶ UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes, 17 March 1992, 31 I.L.M. 1312 (entered into force 6 October 1996), online:

<https://unece.org/DAM/env/water/pdf/watercon.pdf> [[Helsinki Convention](#)] (Kazakhstan and Uzbekistan);

UNECE Convention on Environmental Impact Assessment in a Transboundary Context, 25 February 1991, 30 I.L.M. 800 (entered into force 10 September 1997), online:

https://unece.org/fileadmin/DAM/env/eia/documents/legaltexts/Espoo_Convention_authentic_ENG.pdf [[1991 Espoo Convention](#)] (Kazakhstan and the Kyrgyz Republic);

UN Convention on the Law of the Non-Navigational Uses of International Watercourses, 21 May 1997, 36 I.L.M. 700 (not entered into force yet), online:

https://legal.un.org/ilc/texts/instruments/english/conventions/8_3_1997.pdf [[1997 UNWC](#)] (Uzbekistan);

Convention on Wetlands of International Importance Especially as Waterfowl Habitat, 2 February 1971, 996 U.N.T.S. 245 (entered into force 21 December 1975) online:

<https://treaties.un.org/doc/Publication/UNTS/Volume%20996/volume-996-I-14583-English.pdf> [[Ramsar Convention](#)] (all states); and

and treaties build upon normative concepts and text developed in International Customary Law (e.g. the 1992 Almaty Agreement draws heavily on the Helsinki Convention, and both draw upon principles such as equitable and reasonable use or no harm).

Development Banks Influence on Water & Environmental Management

The World Bank became involved in the Aral Sea Crisis in the 1994 through the Aral Sea Basin Program⁷. This involvement was established after global recognition of the environmental crisis in the Aral Sea Basin which was resulting in severe socio-economic consequences for the population of the sub-region inhabited by over 50 million people. Since their entry, the World Bank have remained involved in the Aral Sea Basin Program, as well as further projects. Those specifically addressing water infrastructure include the Rogun Hydropower Project⁸ and the North Aral Sea Development and Revitalisation Project⁹ in primarily in Kazakhstan and Tajikistan respectively. The Asian Development Bank is involved with funding ongoing development of the Toktogul Rehabilitation Phase 3 Project¹⁰ (Naryn Cascade dams) and Naryn Rural Water Supply and Sanitation Development Program¹¹ in the Kyrgyz Republic.

While the World Bank and other development banks have their proponents and detractors, it cannot be denied that the World Bank has played a critical role in the region with respect to infrastructure projects as well as policy and procedure development.¹²

Legislative Tools & Controls for Environmental Protection

The environmental, social, and economic effects of the poorly implemented, large infrastructure projects in the Aral Basin watershed have been catastrophic and far-reaching. Today, several inter-related environmental and societal factors continue to affect transboundary water management and cooperation in the Aral Basin including: population growth; climate change; various consequences of Aral Sea shrinkage and environmental degradation (such as desertification, pollution, biodiversity loss and water quality deterioration); conflicting interests in regional water use; state inter-reliance to meet the water, energy and food resource requirements; state pursuit of water, energy and food

UNECE Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, 25 June 1998, 38 I.L.M. 517 (entered into force 30 October 2001), online: <https://unece.org/DAM/env/pp/documents/cep43e.pdf> [[Aarhus Convention](#)] (Kazakhstan, the Kyrgyz Republic, Tajikistan, and Turkmenistan).

⁷ Further information can be found here:

<https://documents1.worldbank.org/curated/en/282981468768265004/pdf/multi-page.pdf>

⁸ Further information can be found here: <https://www.worldbank.org/en/country/tajikistan/brief/final-reports-related-to-the-proposed-rogun-hpp>

⁹ Further information can be found here: <https://projects.worldbank.org/en/projects-operations/project-detail/P170187>

¹⁰ Further information can be found here: <https://www.adb.org/projects/49013-002/main>

¹¹ Further information can be found here: <https://www.adb.org/projects/52256-001/main>

¹² E.g. Ziganshina, D. R. (2019). Transboundary environmental assessment in the Aral Sea basin: the interplay of international and domestic law. Central Asian Journal of Water Research (CAJWR) Центральноеазиатский журнал исследований водных ресурсов, 4(2), 27-47.

resource independence; constantly evolving political and economic landscape; in addition to outdated and inefficient water management practices and infrastructure.

Water, energy and infrastructure projects are innately inter-related in the Aral Basin. Development of water resources in ambitious Soviet development programmes in the region saw the development of hydropower projects (e.g. Nurek dam, completed 1982, Daškevič, 1974; Davidiânc & Tarasevič, 1980; Černyš, 1981)¹³ and large irrigation projects to develop agriculture in each of the Central Asian States. Hydropower represents more than 90% of electricity supply in some states, and the agricultural sector is still the primary industry in the Central Asian States.¹⁴ However, projects affecting transboundary waterways have altered the natural river flow through storage and river diversions, consequently disrupting the natural hydrological and ecological system. The effect of upstream problems associated with past and present initiatives have accumulated downstream leading to ecologically and economically disastrous drying of the Aral Sea.¹⁵ Drying effects have resulted in feedback loops which has resulted in many negative outcomes.¹⁶ The discussion of this paper will contemplate measures put in place by the Aral Basin transboundary water and environmental management agreements, and will discuss their efficacy in improving environmental outcomes of historically poorly-implemented infrastructure projects. Recent and ongoing regional infrastructure projects will then be discussed and available legal tools contributing to environmental protection and management will be assessed.

Aral Basin Early Post Independence Environmental Protection Framework

The first international multilateral agreement on transboundary waters in the Aral Basin, the Agreement between the Republic of Kazakhstan, the Kyrgyz Republic, the Republic of Uzbekistan, the Republic of Tajikistan and Turkmenistan on Cooperation in Joint Management of Use and Protection of Water Resources of Interstate Sources (1992 Almaty Agreement), was signed in Almaty (Kazakhstan) on 18th February 1992, approximately 3 months after the last of the Central Asian States gained independence. This agreement set the basis for rights (e.g. Article 1), obligations and responsibilities (e.g. Article 1, 2, 3, 4, 5 & 6) and some guiding principles of water management in the region (e.g. Article 1 - equitable and reasonable use¹⁷, Article 3 – no harm principles & Article 10 & 11

¹³ https://unece.org/fileadmin/DAM/env/water/publications/assessment/English/G_PartIV_Chapter3_En.pdf

¹⁴ Russell, M. (2018, September). Water in Central Asia - An increasingly scarce resource. European Parliamentary Research Service (EPRS).

[https://www.europarl.europa.eu/RegData/etudes/BRIE/2018/625181/EPRS_BRI\(2018\)625181_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2018/625181/EPRS_BRI(2018)625181_EN.pdf)

¹⁵ <https://documents1.worldbank.org/curated/en/802071576076859516/pdf/Concept-Environmental-and-Social-Review-Summary-ESRS-North-Aral-Sea-Development-and-Revitalization-Project-P170187.pdf>

¹⁶ Examples of inter-related effects produced by feedback loops from Aral Sea drying:

- Increased lake salinity resulting in ecological pressure and decline reduced access to potable water, among other impacts.
- Increased seasonal variation influencing the regions productivity, rainfall and climate.
- Desertification of the region. Aeolian sediments are thought to relate to a number of poor health outcomes. This also impacted agricultural productivity and amplified climatic effects.
- Ground contamination from salt, fertilizer and pesticides which influence productivity. Islands used as Soviet testing sites during the Cold War contaminated with biohazards (Tularaemia, bubonic plague and anthrax) also posed a health risk to local communities.

¹⁷ Equitable and reasonable utilisation entitles a watercourse State to an equitable and reasonable share of the uses and benefits of the particular watercourse, and also creates the reciprocal obligation not to deprive other States of their respective rights in this regard. Please see the [UN Watercourse Convention factsheet: Number 4](#) for further information.

– implementation strategy for integrated water resource management (IRWM) in the region¹⁸). The agreement also established governing bodies to manage water resources in the basin (Article 7, 8 & 9) setting remit (e.g. Article 10) and some powers (e.g. Article 11 – ability to set binding withdrawal limits depending on actual water availability in a given year & Article 12 – mechanisms for violation of agreed regime and limits of water use).

The Almaty Agreement provides a strong foundation for environmental protection. In particular, the powers under Articles 10, 11 and 12 which established the Interstate Coordination Water Management Commission and its executive body, and provide binding release regimes and water use limits. These articles also establish water quality standards based on the rational and economic use of water resources. The aim is to ensure delivery of guaranteed water volume to the river deltas and the Aral Sea for the purpose of rehabilitation of ecological condition and preservation of water quality in accordance with achieved agreements. The agreement then gives enforcement powers “of economic and such other responsibility for violation of the agreed regime and limits of water use”. The ability and requirement to set binding water use limits based on actual annual water budgets shows real pragmatism in water management to resolve the regions water and environmental crisis. Providing powers to ensure these limits are adhered further validates them. The establishment of interstate governing bodies representing the relevant engaged riparian states also demonstrates efforts in cooperation, reciprocity and equivalency, and gives clear responsibility to all riparian parties. The agreement is also consistent with international law and the concept of benefit sharing¹⁹ between states²⁰.

Ongoing development of the regional legal framework has sought to build and expand upon the foundational Almaty Agreement. Most notably for environmental protection this includes tools to assess large infrastructure projects environmental effects, most notably the Environmental Impact Assessment (EIA).

Environmental Impact Assessments

Protection from activities undertaken on waterways is inherently a cross-border issue, since effects are not restricted to the area immediately adjacent to the activity location nor national borders. The countries in the Aral Basin economies and populations depend profoundly on the availability and quality of the basin’s waters. Such dependency is exacerbated by a delicate ecological balance in the region which has been put under stress.²¹ A key, internationally accepted tool to assess project viability in the context of environmental protection, and which is provided for in regional international

¹⁸ The no significant harm rule requires that States, “in utilizing an international watercourse in their territories, take all appropriate measures to prevent the causing of significant harm to other watercourse States.” Please see the [UN Watercourse Convention factsheet: Number 5](#) for further information.

¹⁹ Moynihan, R. (2015). Equity and Benefit-Sharing in International Water Law: Reflections on the 2015 World Water Congress

²⁰ Benefit-sharing is proposed as a conceptual framework to enable States to identify a broader range of benefits and costs from the use and protection of river basin resources and engage in a process of dialogue over how those benefits and costs could be shared between States. Employed in this way, benefit-sharing is expected to strengthen inter-State cooperation, equitable utilization, equitable participation and the implementation of an ecosystem approach.

²¹ Ziganshina, D. R. (2019). Transboundary environmental assessment in the Aral Sea basin: the interplay of international and domestic law. *Central Asian Journal of Water Research (CAJWR) Центральноеазиатский журнал исследований водных ресурсов*, 4(2), 27-47.

law are Environmental Impact Assessments (EIA). The objective of EIA's are to identify, predict and evaluate the economic, environmental and social impact of development activities at an early stage in project planning and design; to provide information on the environmental consequences for decision making; and to promote environmentally sound and sustainable development through the identification of appropriate alternatives and mitigation measures. As best practise, EIA's also provide opportunity for public participation on project decision making. Specific reference is given to EIA's in International Law and Convention relevant to the Aral Basin as an appropriate measure to meet terms established in existing agreements.²² There are a range of complementary assessment tools, including strategic environmental assessment, cumulative effects assessment, ecological impact assessment, risk assessment, social impact assessment, health impact assessment and technology assessment (although these are less commonly regulated or mandatory, as is the case in the Aral Basin).²³

Early guidance in the Espoo Convention has played a key role in influencing practice for undertaking EIA's. The Espoo Convention outlines a number of normative general principles for international law which have been applied in the region, including obligations to prevent transboundary harm, cooperation between states, notification and informational sharing on matter related to the waterway, and equitable use.²⁴ The history and evolution of environmental assessments globally and in the Aral Basin are outlined in Ziganshina (2018).²⁵

The use of EIA's have also been supported in international courts. Supporting cases include, the Pulp Mills²⁶ and San Yuan River Basin EIA assessment²⁷ rulings. Court opinion supports the view that transboundary EIA's are established as a normative practice through the application of consistent

²² E.g. Article 6(2) of the Ashgabad convention (2006; all Central Asian States); Article 3(1)(h), Article(9)(2)(j) and Article 11 of the Helsinki Convention (1992; Kazakhstan & Uzbekistan); these treaties exist in parallel to the Espoo Convention (1991; parties include Kazakhstan & the Kyrgyz Republic); Article 3(1)(h)) of the Helsinki Convention (1992; parties include Kazakhstan, Turkmenistan and Uzbekistan) and to a lesser extent the Aarhus Convention (1998; parties include Kazakhstan, the Kyrgyz Republic, Tajikistan, and Turkmenistan) which provides for access to information, public participation in decision-making and access to justice in environmental matters.

Prior to the fall of the Soviet Union texts which required EIA's included Decree of 7 January 1998 of the Central Committee of the Communist Party of the Soviet Union and the Council of Ministers on The Radical Reform of Nature Protection. Resolution of the Expert Sub-Commission to the Gosplan (State Planning Committee) State Expert Commission of the USSR (12 March 1982); Protocol of the Scientific and Technical Council of the Ministry of Water Resources Management of the USSR on Approval of the Principles of Inter-Republican Water Allocation of the Syrdarya River Basin Resources No 413 (29 February 1984); Protocol of the Scientific and Technical Council of the Ministry of Water Resources Management of the USSR on Approval of the Principles of Inter-Republican Water Allocation of the Amudarya River Basin Resources No 556 (10 September 1987); Decision of the Gosplan State Expert Commission of the USSR No 11 (5 March 1982).

²³ Benson, J. F. (2003). What is the alternative? Impact assessment tools and sustainable planning. *Impact Assessment and Project Appraisal*, 21(4), 261-280.

²⁴ E.g. Helsinki Convention, The UNWC, the Almaty Agreement, the Kzyl-Orda Agreement, Chardjev agreement the Bishkek Agreement, the Ashgabad Agreement and the Minsk Agreement.

²⁵ Ziganshina, D. R. (2019). Transboundary environmental assessment in the Aral Sea basin: the interplay of international and domestic law. *Central Asian Journal of Water Research (CAJWR) Центральноазиатский журнал исследований водных ресурсов*, 4(2), 27-47.

²⁶ Argentina v. Uruguay, 2010, In Latin America and the International Court of Justice. Routledge. Online at: <https://www.icj-cij.org/en/case/135>

²⁷ Costa Rica v. Nicaragua, 2010. In Latin America and the International Court of Justice. Routledge. Online at: <https://www.icj-cij.org/en/case/152>

state practice globally.²⁸ This was advanced by Knox (2002),²⁹ who views transboundary EIA as 'an offshoot of domestic EIA laws extended in accordance with the principle of non-discrimination.'³⁰

Ongoing Aral Basin Environmental Protection & Improvement Framework

While EIA's were utilised during the Soviet period,³¹ the current use of EIA's were formalised through regional agreements after state independence³² and international law.³³ The impact assessment became a fundamental procedural system of transboundary water management in the Aral Basin in the early 1990's,³⁴ with specific formal introduction in 2006.³⁵ It is clear that the early framework (pre-2006) was designed for the protection and management of the Aral Basin transboundary watershed and aims to address concepts which would be included in best practice EIA (or similar type of assessment). This includes specific reference to principles such as the rights and obligations of no-significant harm; rational, fair and equitable use; and duty to cooperate, exchange information, consult and notify, and other due diligence requirements (like appropriate assessment measures individually within state domestic systems).³⁶ It is also consistent with regional policy to employ an Integrated Water Resource Management approach to transboundary waterways in the region.³⁷ Regional EIA policy has concurrently evolved with the legal framework and Development Bank

²⁸ E.g. Pulp Mill at 61 para 204. See also Request for an Examination of Situation in Accordance with Paragraph 63 of the Court's Judgment of 20 December 1974 in the Nuclear Tests (New Zealand vs France) Case, 1995 ICJ 228, 344 (Separate Opinion of Justice Weeramantry). Weeramantry states that the principle of TEIA was 'gathering strength and international acceptance, and [had] reached the level of general recognition [such that the] Court should take notice of it'; *Gabčíkovo-Nagymaros Cas; and Pulp Mill* at 61 para 204. See also Judge Weeramantry's separate opinion.

²⁹ J. H. Knox, "The Myth and Reality of Transboundary Environmental Impact Assessment" (2002) 96 American Journal of International Law 291

³⁰ Discussed in Ziganshina, D. R. (2019). Transboundary environmental assessment in the Aral Sea basin: the interplay of international and domestic law. *Central Asian Journal of Water Research (CAJWR) Центральноазиатский журнал исследований водных ресурсов*, 4(2), 27-47.

³¹ E.g. Decree of 7 January 1998 of the Central Committee of the Communist Party of the Soviet Union and the Council of Ministers on The Radical Reform of Nature Protection. Resolution of the Expert Sub-Commission to the Gosplan (State Planning Committee) State Expert Commission of the USSR (12 March 1982); Protocol of the Scientific and Technical Council of the Ministry of Water Resources Management of the USSR on Approval of the Principles of Inter-Republican Water Allocation of the Syrdarya River Basin Resources No 413 (29 February 1984); Protocol of the Scientific and Technical Council of the Ministry of Water Resources Management of the USSR on Approval of the Principles of Inter-Republican Water Allocation of the Amudarya River Basin Resources No 556 (10 September 1987); Decision of the Gosplan State Expert Commission of the USSR No 11 (5 March 1982).

³² E.g. explicitly Article 4 and 6 of the Ashgabad Convention, 2006, all states; and Espoo Convention, 1991, Kazakhstan and the Kyrgyz Republic. Indirect reference in Article 1 of the Kzyl-Orda Agreement, 1993, all states; and Article 3 of the Minsk Agreement, 2013, among others ratified by all Central Asian States.

³³ [Helsinki Convention](#) (Kazakhstan and Uzbekistan); [Espoo Convention](#) (Kazakhstan and the Kyrgyz Republic); [UNWC](#) (Uzbekistan); and [Aarhus Convention](#) (Kazakhstan, the Kyrgyz Republic, Tajikistan, and Turkmenistan).

³⁴ [Espoo Convention](#), 1991 (Kazakhstan and the Kyrgyz Republic) and Article 1 of the Kzyl-Orda Agreement, 1993 (all states)

³⁵ Article 4 and 6 of the Ashgabad Convention

³⁶ e.g. Indirect reference in Article 1 of the Kzyl-Orda Agreement, 1993, all states; and Article 3 of the Minsk Agreement, 2013, among others ratified by all Central Asian States

³⁷ E.g. goals first established in the Almaty Agreement (1992); or operationalised by the IFRAS Establishment (Tashkent) Agreement (1999).

standards, and international best practice.³⁸ A fundamental limitation for successful implementation of EIA's is the complex legal framework which includes several treaties, and does not outline a specific and clear procedure for transboundary environmental assessment in the Aral Sea Basin.³⁹ These challenges are exemplified in the Rogun Hydroelectric Power Plant (HPP) and Dam construction, contrasted with ongoing development in the Naryn Cascades. The case study and implications are discussed below.

The World Bank has been involved in financing the 2014 *Rogun Assessment Studies*.⁴⁰ The Rogun Hydroelectric Power Plant is a 335 metre dam, with a final volume of 13.3 km³, built on the Vakhsh River (a major tributary to the Amu Darya) in Tajikistan. The dam will nearly double the country's installed energy capacity when completed. The first turbine was commissioned in 2018, and the capacity will be gradually increased as the reservoir is filled. The dam is considered very important for Tajikistan since electricity production in the country is dominantly based on hydropower (over 90%). Until recently, the state has relied heavily on the Nurek hydroelectric power plant (HPP) which contributed over 75% of the state electricity. The Nurek HPP has seen silting issues which raised concerns about decline in future generation. The Rogun Dam has been touted as essential to meet energy independence for Tajikistan, but also to supply energy to the broader region, and is expected to reduce silting issues in the Nurek HPP.

The Rogun Dam assessment was undertaken consistent with Tajik domestic and international law, and is reported to meet international best practice and the World Bank's safeguard policies.⁴¹ The World Bank studies find that the dam and hydropower plant were feasible and

“once finalized, has the potential of increasing the security of the entire cascade along the Vakhsh River and—by removing sedimentation—extends Nurek's expected life span by about a century”⁴². In addition, the World Bank concluded that Rogun has the potential of (i) placing Tajikistan onto a trajectory of inclusive and sustainable growth; (ii) serving as the foundation

³⁸ E.g. World Bank. (1998). Aral Sea Basin Program (Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan and Uzbekistan) [Water and Environmental Management Project](#) compared with assessment in World Bank. (2014). [Key Issues for Consideration on the Proposed Rogun Hydropower Project](#). A breakdown of the final reports can be found online here: <https://www.worldbank.org/en/country/tajikistan/brief/final-reports-related-to-the-proposed-rogun-hpp>.

³⁹ Ziganshina, D. R. (2019). Transboundary environmental assessment in the Aral Sea basin: the interplay of international and domestic law. *Central Asian Journal of Water Research (CAJWR) Центральноазиатский журнал исследований водных ресурсов*, 4(2), 27-47.

⁴⁰ World Bank. (2014). [Key Issues for Consideration on the Proposed Rogun Hydropower Project](#). A breakdown of the final reports can be found online here: <https://www.worldbank.org/en/country/tajikistan/brief/final-reports-related-to-the-proposed-rogun-hpp>

⁴¹ Ziganshina, D. R. (2019). Transboundary environmental assessment in the Aral Sea basin: the interplay of international and domestic law. *Central Asian Journal of Water Research (CAJWR) Центральноазиатский журнал исследований водных ресурсов*, 4(2), 27-47.

⁴² The author has the view that, the life span extension is optimistic for a few reasons the average lifespan of a dam built in the 1930's-1970s (Nurek Dam was constructed between 1961 and 1972) is generally considered to be 50-100 years; the Nurek Dam is already reported to have been exposed to significant silting (decreased the usable reservoir volume of Nurek by 50% (e.g. [Féaux de la Croix & Suyarkulova, 2015](#)) unless removal is being undertaken, this is exerting stress on the structure; and the Nurek Dam is exposed to physical and mechanical processes in particular thawing-freezing and drying-wetting cycles and seismicity in the region.

e.g. estimates vary but can be found at: teachengineering.org; nrel.gov; and [water power magazine](#).

Moreover the idea to build a dam to resolve sedimentation in an older downstream dam, seems to be somewhat of a fallacy since it would refer the issue to the new Rogun Dam, at most reducing the issue for the Nurek Dam. In this self-referential logic, if a new dam is necessary in order to resolve the sedimentation issue of a dam built earlier downstream.

*for a regional energy market spanning from Central to South and East Asia allowing for the export excess electricity to neighbouring countries; and (iii) and fostering collaboration among neighbours on vital regional issues, such as water resource management across the entire Amu Darya Basin.*⁴³

However, the project has proved contentious, and downstream countries and regional experts have raised concerns and questioned assessment methods, modelling methodology and assumptions and inaccurate interpretation of existing legal documents and practices with respect to annual and seasonal water withdrawals and the determination of supposed historic flows.⁴⁴ The project has resulted in debate in the region with Uzbekistan, in line with international recommendations on common river basin management, claiming a say in upriver dam building, and fears that Rogun will mean both a temporary and also permanent reduction in the Amu Darya flow.⁴⁵ This has implications for the already materially impacted Southern Aral Sea. Alternately, Tajikistan claims that it is not even fully using its presently allocated water quota to these rivers, and that it is operating entirely within its rights, not disturbing the balance of water to the West and North at all.⁴⁶

A change in Uzbek foreign policy to improve relationships within the region as a priority saw a change in discourse from strong opposition to acceptance of the project moving forward.⁴⁷ In a press conference Uzbek Foreign Minister Abdulaziz Kamilov said:

*“During the construction of such dams, the interests of both upstream and downstream countries should be considered. We do not say that our Tajik friends should stop the construction of the Rogun Dam. Go ahead and build it, but we hold to certain guarantees in accordance with these conventions that have been signed by you.”*⁴⁸

The Rogun project has attracted interest from other parties ensuring elements of the project are undertaken properly. For example the Human Rights Bureau has closely documented the government resettlement program. In that instance, lobbying for rights of relocated peoples is reported to have been fairly successful because of the Tajikistan government’s desire for a clean bill internationally, so that they can find co-funders⁴⁹.

Across the border, ongoing development of the Naryn Cascade Dams are treated far more as a matter-of-fact solution to an everyday problem: how to supply the country with enough energy.⁵⁰ This could be because the Naryn River which is a tributary of the Syr Darya is generally hydraulically isolated from

⁴³ Muller, C. (2018, November 16). Rogun Hydropower Plant Launching Ceremony in Tajikistan. The World Bank. <https://www.worldbank.org/en/news/speech/2018/11/16/rogun-hpp-launching-ceremony-in-tajikistan>

⁴⁴ Ziganshina, D. R. (2019). Transboundary environmental assessment in the Aral Sea basin: the interplay of international and domestic law. *Central Asian Journal of Water Research (CAJWR) Центральноазиатский журнал исследований водных ресурсов*, 4(2), 27-47.

⁴⁵ Panfilova Viktoriâ, 2014, «Verdikt Vsemirnogo Banka o bezopasnosti stroitel'stva Rogunskoj GES mozet destabilizirovat' situaciû v CA» [The Verdict of The World Bank on The Security of Building Rogun HPP May Destabilise The Situation in Ca].

⁴⁶ Féaux de la Croix, J., & Suyarkulova, M. (2015). The Rogun Complex: public roles and historic experiences of dam-building in Tajikistan and Kyrgyzstan. *Cahiers d'Asie centrale*, (25), 103-132.

⁴⁷ McCaffrey, S. C., Leb, C., & Denoon, R. T. (Eds.). (2019). *Research handbook on international water law*. Edward Elgar Publishing.

⁴⁸ Chaterine Putz, *Uzbekistan's changing Rogun tone*, The Diplomat, July 10, 2017, available at: <https://thediplomat.com/2017/07/uzbekistans-changing-rogun-tone/> (accessed Oct 2021)

⁴⁹ Féaux de la Croix, J., & Suyarkulova, M. (2015). The Rogun Complex: public roles and historic experiences of dam-building in Tajikistan and Kyrgyzstan. *Cahiers d'Asie centrale*, (25), 103-132.

⁵⁰ Féaux de la Croix, J., & Suyarkulova, M. (2015). The Rogun Complex: public roles and historic experiences of dam-building in Tajikistan and Kyrgyzstan. *Cahiers d'Asie centrale*, (25), 103-132.

the Uzbek Aral Sea (Southern Aral Sea) by the Kok-Aral Dam.⁵¹ Like Tajikistan, the Kyrgyz Republic relies heavily on hydropower for electricity (over 90% generation)⁵². The majority of the hydropower energy is generated on the Naryn River by several hydropower plants: Kamarata 2, Toktogul, Kurpsai, Tash-Kumur, Shamaldy-Say and Uch-Kurgan.⁵³ Domestic energy consumption is highly seasonal with peak demand in autumn and winter. Energy consumption has nearly doubled over the past 30 years, cuts arise from problems due to low flow in winter months, technical failures in the outdated generating equipment. Like Rogun, hydroelectric generation from the Naryn Cascade is central to the present and future economic development, and energy independence of the Kyrgyz Republic. The Kyrgyz Republic also plan to be a contributor to a regionally managed transmission system between the Central Asian countries in future.⁵⁴ The Kyrgyz Republic have relied on funding from Russia and other states to support projects, as well as the Asian Development Bank.

Environmental Impact Assessments are completed for each project, consistent with domestic and international law and international best practice.⁵⁵ Results generally highlight the positive outcomes of projects while minimising negative impacts. As stated in Féaux de la Croix & Suyarkulova “[i]t seems to be this different approach to issues of sovereignty and disputed variations of patriotic ‘ownership’ that may feed the greater heat of Tajikistani-Uzbekistani water disputes, compared to Kyrgyzstani-Uzbekistani water relations.”⁵⁶

The state of affairs for transboundary water infrastructure projects and outcomes in the Aral Basin shows that despite an international legal framework which aims to facilitate interstate cooperation and positive environmental, social and economic outcomes for all states, disputes will inevitably arise, and unforeseen outcomes may occur. This demonstrates the utility of EIA’s during project planning; however, there are significant barriers to effective and equitable implementation of EIA’s when they are not independent, neutral in tone, broad in focus, subject to rigorous standards and review, and if principles of reciprocity and equivalency are not met. These points will be discussed further below.

It is apparent that regional discourse could benefit from clear, regionally agreed standards, and a code of conduct for the content and process applicable to EIA’s. An international law framework already exists between most riparian states⁵⁷ which may build upon established agreements for a fair and inclusive EIA process. Currently the international legal framework sets provisions that the content of an EIA is to be determined by domestic law. So while International Law and Development Bank policy can be drawn on to support domestic standards, the quality of project EIA and additional

⁵¹ Discussed later in this paper.

⁵² Tractebel Engineering S.A/ Endustriel Elektrik Maden LLC. (2018, September). Initial Environmental Examination - KGZ: Uch-Kurgan Hydropower Plant Modernization Project (Project Number: 49240–002). Open Joint-Stock Company Electric Power Plants and the Asian Development Bank. <https://www.adb.org/sites/default/files/project-documents/49240/49240-002-iee-en.pdf>

⁵³ Open Joint Stock Company Electric Power Plants, Kyrgyz Republic. (2014, July). ADB - TA-8434 (KGZ) Power Sector Rehabilitation Project Initial Environmental Examination (IEE) Rehabilitation of Toktogul HPP, Phase 2. Fichtner. <https://www.adb.org/sites/default/files/linked-documents/46348-003-ieeab.pdf>

⁵⁴ Open Joint Stock Company Electric Power Plants, Kyrgyz Republic. (2014, July). ADB - TA-8434 (KGZ) Power Sector Rehabilitation Project Initial Environmental Examination (IEE) Rehabilitation of Toktogul HPP, Phase 2. Fichtner. <https://www.adb.org/sites/default/files/linked-documents/46348-003-ieeab.pdf>

⁵⁵ Article 6(2) of the Ashgabad convention (2006) directly references “relevant impact assessment”. Down and mid-stream states of the Aral basin favour conventions which give reference to environmental assessments and environmental impact assessments i.e. Helsinki Convention (1992; Kazakhstan & Uzbekistan) Article 3(1)(h), Article(9)(2)(j), Article 11; the Espoo Convention (1991; Kazakhstan & the Kyrgyz Republic).

⁵⁶ Féaux de la Croix, J., & Suyarkulova, M. (2015). The Rogun Complex: public roles and historic experiences of dam-building in Tajikistan and Kyrgyzstan. *Cahiers d’Asie centrale*, (25), 103-132.

⁵⁷ Excluding Afghanistan who is riparian to the Amu Darya.

considerations and protections given to the environment are more likely to be influenced by political and economic pressures under any regime (such as seen in the Rogun Dam project). Additionally, financing opportunities are constrained by World Bank/ Development Bank structure, policy and risk appetite. As a result of these policies, in order to qualify for necessary financial aid, there is a bias to a small number of large projects with a requirement for high due-diligence and which are potentially contentious and subject larger environmental risk, like the Rogun Dam. Disadvantages of this approach include opportunity cost, because large projects take a lot longer to implement, so benefits generally are not realised until completion: in the case of the Rogun Dam, it has been approximately 50 years since its first conception, and 5 years from the completion of the World Bank EIA. Consequently, this results in increased risk, as large-scale impacts of the activity are generally not incremental, and benefits are not shared. In the case of the Rogun Project Assessment, the large dam is the only consideration over other opportunities (e.g. investment in a decentralised “smart grid” for more energy this distributed regimes, fostering decentralised and central integration and supporting small and medium enterprise are not considered to resolve the same problem). In respect of irrigation projects, this could include investigations into low investment opportunities such as influencing water management by social norms and other principles of behavioural economics and anthropology. This lack of holistic consideration is inconsistent with best practice EIA development.

Bias in EIA's is also a risk for any party with a vested interest in the projects present or future outcome. Due to unconscious mindsets or belief systems people are easily influenced by those with similar views, which can result in undue emphasis on a particular project when there may be more efficient alternatives. As such, EIA's which are not developed using a rationality and evidence-based approach are at risk of not properly delineating the problem or considering alternatives. In the Aral Basin, the lack of truly independent EIA assessors, and the current framework allowing state domestic law to set EIA standards is unlikely to provide for best environmental outcomes, particularly when upstream states are undertaking the assessment. This is because regional social and economic advancement are given equal consideration as the environment under the current international Aral Basin transboundary watershed legislative framework, and states undertaking the EIA have a bias to advantage themselves. Likewise, the World Bank cannot be considered completely independent since it holds a vested interest in states; for example Tajikistan paying back loans in the example of the Rogun Dam. This is reflected in the World Bank Rogun HPP project document, which sets a tone which is Tajikistan-centric, is not particularly critical of the project, does not consider alternatives, and is written with a prevailing, overly optimistic tone.

Ziganshina⁵⁸ writes that standards generally decrease the consistency and coherence of the legal frameworks, although acknowledges that the threshold of significant harm is the minimum measure to which the Central Asian states must comply with based on international convention and treaties. This is supported by a comparative analysis by Wood (2002) which has demonstrated the broad international variation between systems.⁵⁹ These observations raise the question of whether EIA's in the Aral Basin could be considered more of an administrative tool. This conclusion is supported by the reliance on the EIA for the Rogun Dam to justify project progression despite objection from other affected states and parties. It does not appear that impact assessment procedures for potential transboundary impacts resultant from the dam have been pursued on a reciprocal and equivalent

⁵⁸ Ziganshina, D. R. (2019). Transboundary environmental assessment in the Aral Sea basin: the interplay of international and domestic law. *Central Asian Journal of Water Research (CAJWR) Центральноазиатский журнал исследований водных ресурсов*, 4(2), 27-47.

⁵⁹ Wood, C (2002), *Environmental Impact Assessment: A Comparative Review* (Prentice Hall, Harlow, 2nd edition).

basis. Uzbekistan's already vulnerable position is compounded by the need for the state to rely on protective clauses in the law after harm or damages have occurred.⁶⁰ Uzbekistan has been isolated from significant flow in to the Aral Sea from the Syr Darya to the north, and consider that disruption of flow from the Amu Darya could be catastrophic for the state. Uzbekistan is already burdened with disproportionate risk with minimal to no benefit in the construction of the dam. Should damage or harm befall Uzbekistan due to dam construction, then there is additional risk (and cost) pursuing reparations. That is, if it is even possible to compensate for damages with something as essential and fundamental as water and associated environments in the region which are already considerably pressured.

Environmental Impact Assessments in the context of transboundary water resource management are often presented as a mechanism for corporation. Yet, based on the EIA development framework in the Aral Basin they do not reconcile the clear power imbalance between up- and down-stream states. As result of limited dispute resolution mechanisms prior to dam installation in the Rogun Dam example it is not clear how downstream state concerns are given effect, particularly given clear conflict of interest between Tajikistan as the decision maker on the project and setting standards for administering the EIA. On the contrary, although less of an issue, in a fair and equitable system, how can you ensure that downstream states are not interfering with reasonable development upstream; for example, if it were found that Uzbekistan's concerns were unfounded or disproportionately negative. Both situations would be a clear contravention of the principles of the legal framework; however, only one has true recourse. Both have the potential for damaging state relations (conflict) although in the first example, where the harm is greater can any retribution or "mechanism of economic and such other responsibility for violation⁶¹" truly compensate for harm/ losses?

Balancing Contrasting Environmental Outcomes under Aral Basin Law

The Aral Sea Basin Program (ASBP) for water and environmental management Project was commissioned in joint action between Aral Basin states and the World Bank⁶². The project sought to address four basic problems in water and environmental management in the region: stabilising the environment; rehabilitating the disaster zone around the Sea; improving the management of international waters; and building the capability of the managing regional institutions. The project saw the construction of the Kok-Aral Dam was constructed in Kazakhstan and completed in 2005. Funding was provided by the Kazakhstan, the World Bank and various other governments. The associated Kok-Aral Dike aims to accumulate runoff from the Syr Darya River to revitalise the Northern (small) Aral Sea. The Syr Darya River is the primary source of the freshwater inflow into the Aral Sea. The presence of the dam also acts to limit water exchange between the North Aral Sea and other residual basins in the much larger Southern Aral Sea, although sluices allow water from the Syr Darya to flow into the Southern Aral Sea periodically during periods of high inflow.

⁶⁰ As implied in a statement by Uzbek Foreign Minister Abdulaziz Kamilov. Open Joint Stock Company Electric Power Plants, Kyrgyz Republic. (2014, July). ADB - TA-8434 (KGZ) Power Sector Rehabilitation Project Initial Environmental Examination (IEE) Rehabilitation of Toktogul HPP, Phase 2. Fichtner. <https://www.adb.org/sites/default/files/linked-documents/46348-003-ieeab.pdf>

⁶¹ Article 12 of the Almaty Convention

⁶² World Bank. (1998). Aral Sea Basin Program (Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan and Uzbekistan) [Water and Environmental Management Project](#)

In 16 years since dam completion, the volume of the North Aral Sea has increased from 20 square kilometres in 1989 to 27 square kilometres in 2007, and the average salinity has decreased from 30 grams per litre to 11-14 grams per litre,⁶³ allowing a return of fisheries in the Northern Aral Sea. Additionally, there has been a return of some wetland ecosystems associated with the improved conditions in the sea. However, the dam has resulted in a contrast of environmental outcomes set out in the applicable international law. While the project achieves goals in the northern portion of the Aral Sea, the Southern Aral Sea has seen further deterioration. The loss of natural connection to the Syr Darya River, the main source of water inflow, has seen intensification the drying processes in the Southern Aral Sea. For periods of time after 2010, the eastern lobe of the Southern Aral Sea has dried up altogether.⁶⁴ Drying is exacerbated in dry and low/flow years, when sluices may not be opened.

The Environmental Impact assessment⁶⁵ applied to the project failed to adequately assess future outcomes of the Kok-Aral Dam construction. Publicly available EIA's failed to address further deterioration of the Southern Aral Sea⁶⁶ or to identify that dam height was a project risk. Consequently, overall improvements to environmental feedback loops halted when the dam began to seasonally fill to capacity in an unexpectedly short time (ca. 5 years).⁶⁷ This is unfortunate since the viability and efficacy of a dam for the North Aral Sea had already been proven by previous dams constructed in the area. Environmental Impact Assessments could play a role in preventing outcomes such as this if they were treated as "live documents" subject to approvals by relevant regional governing bodies. Current practice in the Aral Basin, as set on a state by state domestic policy, are limited in scope and time, often do not consider the entire affected area (i.e. generally only consider direct and immediate on-site effects), have long term implications (e.g. consumption of goods and services, production, use and disposal of building materials and machinery, additional land use for activities of manufacturing and services, mining and refining, etc. all of which have environmental impacts, and indirect effects of development can be much higher than the direct effects examined by an EIA), and alternative development options. Taking a live document approach would naturally encourage participants to build EIA capability and expand its scope, encouraging more critical, future focussed and regional implication thinking to assess environmental, social and economic outcomes. Treating EIA's as live documents subject to ongoing, periodic review is best practice and consistent with the Integrated Resource Management Approach provided for in the Aral Basin transboundary watershed legal framework. These can also then be applied to implement more efficient projects which will encourage natural feedback loops to improve conditions and achieve best overall outcomes.

⁶³ Aladin, N. V., Plotnikov, I. S., Micklin, P., & Ballatore, T. (2009). Aral Sea: water level, salinity and long-term changes in biological communities of an endangered ecosystem-past, present and future. *Natural Resources and Environmental Issues*, 15(1), 36.

⁶⁴ Britannica, T. Editors of Encyclopaedia (2021, June 8). Aral Sea. *Encyclopedia Britannica*.
<https://www.britannica.com/place/Aral-Sea>

⁶⁵ World Bank. (1998). Aral Sea Basin Program (Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan and Uzbekistan) [Water and Environmental Management Project](#)

⁶⁶ Outcomes seen as a result of the project and lack of inclusion in the EIA do not exhibit a high degree of due diligence. It is potentially inconsistent with the international legal framework set out in the region, and inconsistent with international court findings e.g. *Argentina v. Uruguay*, 2010, In *Latin America and the International Court of Justice*. Routledge. Online at: <https://www.icj-cij.org/en/case/135>

⁶⁶ *Costa Rica v. Nicaragua*, 2010. In *Latin America and the International Court of Justice*. Routledge. Online at: <https://www.icj-cij.org/en/case/152>.

⁶⁷ Uteuova, A. (2020, October 28). Northern Aral's promise stunted by dam height, international disputes. *Eurasianet*. Retrieved October 2021, from <https://eurasianet.org/northern-arals-promise-stunted-by-dam-height-international-disputes>

While overall the dam should be considered an environmental, ecological, and societal success due to the expansion of the Northern Aral Sea in Kazakhstan which has seen a return to fisheries in the dammed area, as well as restoration of wetlands, and possible microclimate changes which bring more rain than when the lakebed was dry. However, this has come at the cost of the Southern Aral Sea in Uzbekistan, which has seen accelerated decline. A well specified infrastructure project could make a material improvement in the region, however the poorly specified Kok-Aral Dam, with limited additional funding opportunity available has led to a local improvement but will not go far enough to truly begin to improve regional intra-state conditions, or to reverse environmental feedback loops which are exacerbating the situation.

Conclusions

Early legal framework in the region set good foundations for favourable environmental outcomes whilst considering other important outcomes, specifically economic and social needs. While there is some flexibility to apply other tools to assess, manage and protect the environment from outcomes of infrastructure projects, none other than EIA's are prescribed in the Aral Basin. As such, EIA's are the fundamental tool used to consider environmental impacts and thus "protect" the environment for ongoing transboundary water infrastructure developments in the basin. Environmental Impact Assessments are supported by international law, international court rulings, regional agreements, and development bank policy.

In the Aral Basin, the EIA framework relies on domestic law to set EIA standards, practice and procedure. How this is achieved is not clearly defined in the regional law. This means that EIA's in the region are often biased to project progression, regardless of opposition or effect to the environment and security of other riparian countries. Dispute resolution, if environmental issues are identified prior to project construction are not clearly or transparently set out, particularly given that economic, social, and environmental principles are balanced under the regional legal framework. This further disadvantages downstream states who may have to rely on compensation after the fact if harm occurs. Environmental Impact Assessments in the region are static documents, not subject to approval by any regional governing body and are often limited in scope. Not only is this unlikely to lead to ideal environmental outcomes, but it also acts to limit EIA practice improvement potential.

Environmental Impact Assessment policy would benefit from a more deliberative approach which focuses on the mechanics of a problem to be made accessible and publicly available. This should consider data before judgement of a conclusion and seek to mitigate societal influences. This could then develop into more detailed assessment for specific projects. For EIA's to be an effective tool to protect the environment, there is a need to critically consider consequences of activities. Ultimately, in the Aral Basin, EIA's appear to be applied as more of an administrative tool, rather than seeking the best possible outcomes for either the environment or other affected parties. As environmental protection policy for transboundary waterways in the region is currently practiced generally, there is a concerted framework available to meet these needs; however, whether or not this is truly observed is another issue.