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Draft legal framework for shared water resources in the Arab World: is it really needed?

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ABSTRACT

Attempts to establish a regional water convention covering shared water resources in the Arab world have been ongoing for more than a decade. During this time, a Draft Arab Water Convention has been proposed, and the content of this has been subject to a debate that did not gain much attention at the international level. This article seeks to examine this topic to determine whether such an instrument is really needed in the Arab world. The article highlights the advantages and disadvantages of establishing such a convention, on the basis of which specific recommendations are made.

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Introduction

The Arab Ministerial Water Council (AMWC, the Council)¹ adopted a Resolution in 2010 calling for the preparation of a Draft Legal Framework on Shared Water Resources in the Arab Region (Draft Arab Water Convention). The Center for Water Studies and Arab Water Security² and the Economic and Social Commission for Western Asia (ESCWA)³ prepared a first draft in 2011 to be submitted to the AMWC. The Council decided in 2011 to limit the scope of this instrument to shared groundwaters. In 2012, it reverted to the original idea of having a regional instrument covering transboundary groundwater and surface waters. The most recent version of the Draft Arab Water Convention includes the main principles of international water law and has many similarities to the Convention on the Law of the Non-navigational Uses of International Watercourses (Watercourses Convention, UNWC) adopted in 1997 (UNWC, 1997). Numerous disagreements persist between the Arab states concerning various provisions of the final draft, and in 2016 these led the AMWC to postpone any decision concerning the fate of the draft until more favourable conditions appeared. The AMWC instead prepared a non-binding document entitled ‘Common Guiding Principles for Cooperation’ to support collaboration among Arab states. These guiding principles represent a first step towards regional Arab cooperation over shared freshwater resources, in the hope that future steps, including a binding treaty, can follow (Economic and Social Commission for Western Asia (ESCWA), 2011a; Economic and Social Commission for Western Asia (ESCWA), 2018).

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The Arab world⁴ is a water-scarce region with a limited amount of renewable freshwaters as Arab countries are located ‘within an arid to extremely arid region’ and suffering from rainfall scarcity and variability (Al-Zubari, 2017, p. 2). Water scarcity is further exacerbated by ‘weak governance and inadequate levels of management, increasing water deficits, and the continuous deterioration of the quality of natural water resources’ (Al-Zubari, 2017, p. 2). The Arab world has numerous transboundary surface water and groundwater resources⁵ (Economic and Social Commission for Western Asia (ESCWA), 2011a; Economic and Social Commission for Western Asia (ESCWA), 2018).

It is in this context that the AMWC called for the preparation of a Draft Arab Water Convention. Regional water treaties have been adopted in several places. The most important are the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (the UNECE Water Convention) (UNECE, 1992), which was originally a regional treaty addressing shared water resources in Europe, and the European Union (EU) Water Framework Directive, which is one of most ambitious pieces of environmental legislation adopted by the EU (Directive 2000/60/EC of the European Parliament and of the Council of, 2000). Both legal mechanisms have a great influence on water basins in Europe. Other instruments include: the Southern African Development Community (SADC) Water Protocol, adopted in 1995 and revised in 2000 (Salman, 2004); the 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 on Utilization and Protection of Water Resources from Interstate Sources (the Almaty Agreement) of 1992 (Rahaman, 2012); and the Economic Community of Central African States Convention for the Prevention of Conflicts Related to the Management of Shared Water Resources in Central Africa (United Nations Economic Commission for Europe, 2017). Non-binding instruments have also been adopted, such as the Economic Community of West African States regional water policy (The Commission, 2007). Meanwhile, the Intergovernmental Authority on Development is negotiating a regional Water Policy and Protocol (Nanni, 2016). However, regional water treaties are not the norm. Instead, shared basins are usually governed by international water law rules and principles contained within basin-specific conventions and instruments, as well as by river basin organizations and commissions (McIntyre, 2010; Schmeier, 2013).⁶ International rules and principles are used for the development of transboundary water agreements tailored to each basin, but numerous basins globally still lack such agreements (Gander, 2014). Regional treaties still supplement basin-specific arrangements. Moreover, the successful implementation of these regional mechanisms is contingent on basin-specific arrangements being in place (Figures 1 and 2).

Given the attempts made in the last decade to establish a regional water instrument, this article seeks to address the following question: *Is the establishment of a Draft Legal Framework on Shared Water Resources in the Arab region really needed?* The author first provides a brief overview of the Draft Arab Water Convention, and then examines the arguments⁷ in favour of the establishment of such a treaty: 1) adopting a unified front in the face of external water security threats; 2) providing a unified vision tailored to the region; 3) providing technical guidance and support through basin-specific treaties or follow-up agreements and instruments; 4) enhancing conjunctive water management; and 5) enabling the AMWC to be effective in solving disputes based on the Draft Arab

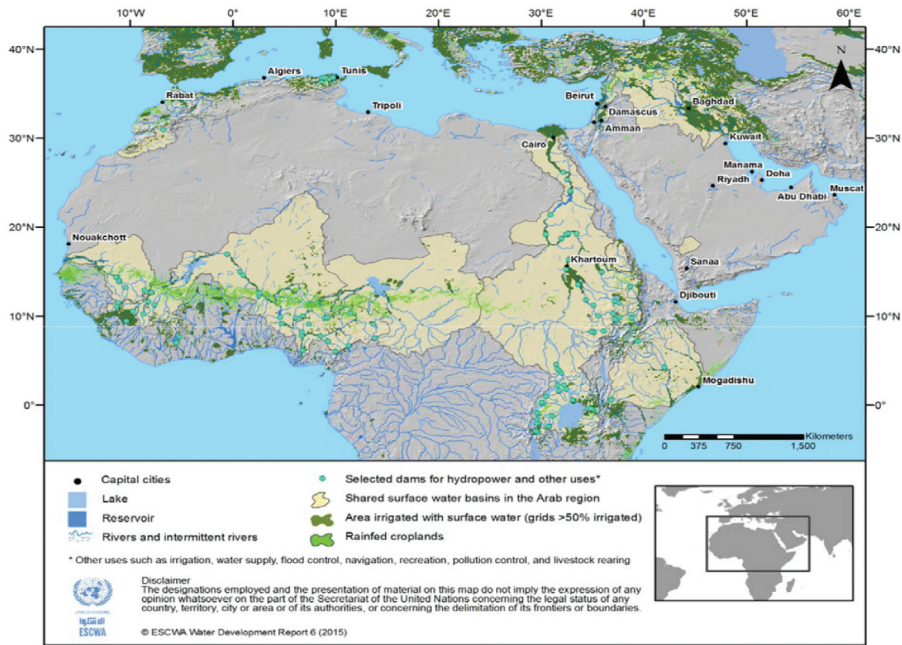


Figure 1. Shared surface water basins in the Arab Region (Economic and Social Commission for Western Asia (ESCWA), 2018, p. 1).

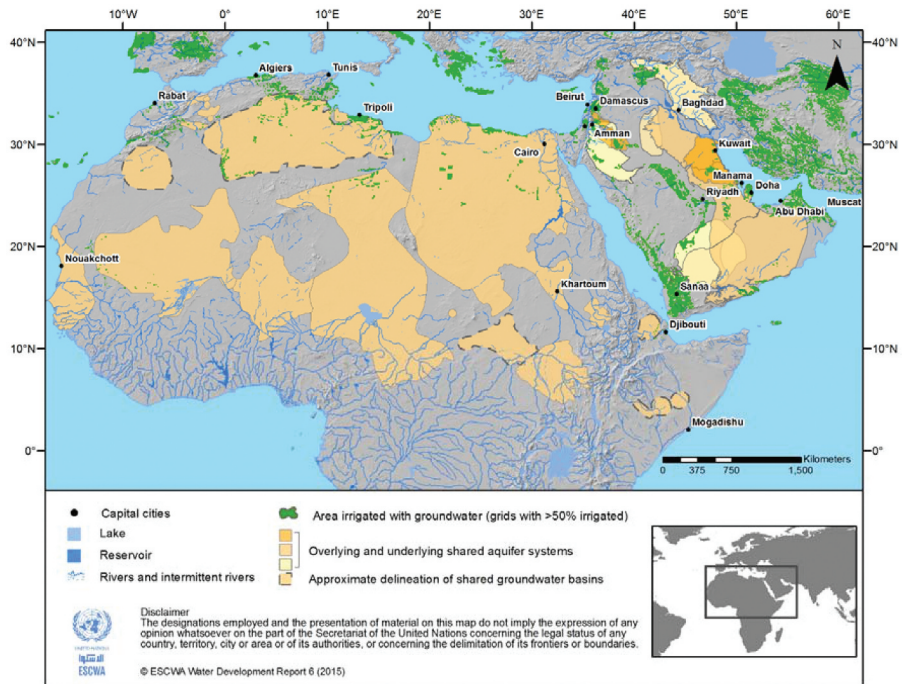


Figure 2. Shared groundwater basins in the Arab Region (Economic and Social Commission for Western Asia (ESCWA), 2018, p. 2).

Water Convention. The author also examines arguments that are against the establishment of such a convention: 1) 50% of shared freshwater resources originate from outside the Arab region; 2) Arab countries sharing freshwaters have different interests; 3) international conventions already exist and Arab countries are parties to these treaties; 4) the provisions of the Draft Arab Water Convention do not address the characteristics of shared aquifers; and 5) the AMWC may not be effective in solving disputes. Based on the analysis of each argument mentioned above, the article presents the author's recommendations, and concludes with a response to the question of whether an Arab Water Convention is actually needed.

The draft legal framework for shared water resources in the Arab world

A new strategy for water security in the Arab world was advocated by the AMWC as a result of water scarcity, the dependence on freshwater resources originating from outside the Arab world, the challenges emerging from climate change that affect the existing limited water resources, and the need to adopt an integrated water resource management approach. The goal was to address the problems facing the shared freshwater resources in the Arab world and to guarantee good governance. The new strategy emphasized the need to adopt transboundary water treaties to ensure regional peace, given the increasing use of water resources, especially by non-Arab countries (Economic and Social Commission for Western Asia (ESCWA), 2011a). This is supported by the international community's adoption of Sustainable Development Goal (SDG) 6 concerning clean water and sanitation for all, and especially SDG target 6.5 and indicators 6.5.1 and 6.5.2. These indicators call for countries to adopt operational arrangements for transboundary water cooperation (SDG Tracker, n.d.). The majority of existing shared freshwaters still do not have water treaties guaranteeing their equitable and reasonable use. The AMWC has issued several decisions addressing shared freshwater resources, including its decision to establish the Draft Arab Water Convention (Economic and Social Commission for Western Asia (ESCWA), 2011a). The stakeholders involved in the drafting process drew several conclusions, including:

The need for the legal framework to take into account the characteristics of the region in relation to water scarcity and food security; Productivity and employment opportunities in the agricultural sector; Economic capacity and its impact on trade and trade policy; Virtual water; Institutional capacities; The role of water in determining the geographical and political features of the region (Economic and Social Commission for Western Asia (ESCWA), 2011a, p. 51).

The following sections will examine the content of the proposed legal framework and the disagreements among the Arab nations over the various provisions.

Content of the Draft Arab Water Convention

The instrument is heavily influenced by the interests and priorities of the various Arab nations. In particular, the language highlights the need to establish a shared vision for the management of shared water resources from a legal perspective, to protect the water

rights of the Arab states. This vision is to be developed between Arab countries but also between Arab and non-Arab countries. Water allocation is the most important issue addressed in the instrument, but other provisions (related, for instance, to environmental concerns) are also included. Cooperation is stressed, in addition to the importance of addressing all the relevant aspects concerning shared surface and groundwater (Economic and Social Commission for Western Asia (ESCWA), 2011a). The language of the Draft Arab Water Convention follows Arab views of a political nature concerning shared freshwater resources. The focus is on the protection of the historical and existing water rights of Arab nations, on regaining the water rights of Palestinian people, and on ensuring the equitable and fair sharing of the various water resources (Economic and Social commission for western Asia (ESCWA), 2011b).

The latest version of the Draft Arab Water Convention has the following main provisions: an intention to cover shared surface and groundwater; a general obligation to cooperate; the regular exchange of data and information; planned measures; equitable and reasonable utilization; an obligation not to cause significant harm; the protection of the environment, which includes the protection of ecosystems and the prevention, reduction and control of pollution; emergency situations; settlement of disputes; water in occupied Arab territories; and institutional arrangements (Economic and Social Commission for Western Asia (ESCWA), 2018).

The instrument covers shared groundwater and surface water within its scope. As for the substantive provisions, states have the right to use the shared freshwater resources in accordance with the principle of equitable and reasonable utilization. The parties must take all necessary measures, and coordinate their various plans, to ensure that all of them benefit in a reasonable and equitable manner (Economic and Social Commission for Western Asia (ESCWA), 2018). Various factors must be considered, including ‘the natural and physical characteristics of the resource, past, current and potential future social and economic water needs, and the availability and use of alternative water resources’ (Economic and Social commission for western Asia (ESCWA), 2011b, p. 25). Another substantive provision is the obligation not to cause significant harm: Arab states must take all measures to prevent any great damage being caused to the other parties. A state causing harm must take all measures to either eliminate or address this harm and, when necessary, provide compensation. Finally, the principle of cooperation is also included. Such cooperation must consider various elements, mainly ‘sovereign equality, territorial integrity, mutual benefit and good faith’ (Economic and Social commission for western Asia (ESCWA), 2011b, p. 22).

As regards the procedural provisions, Arab nations are expected to share ‘data, information, and forecasts on the condition of the resource, in particular that of a hydrological, meteorological, hydrogeological, and ecological nature, as well as those related to water quality’ (Economic and Social commission for western Asia (ESCWA), 2011b, p. 22). They must also notify each other of any planned measure and potentially discuss the potential impact of such a measure. They must also prepare emergency plans, when necessary, to address emergency situations in which cooperation among the various nations is of the utmost importance (Economic and Social Commission for Western Asia (ESCWA), 2018). When it comes to dispute settlement, the parties must attempt to solve conflicts through peaceful means. If they fail to reach an agreement, they

can jointly look for conciliation or mediation by the AMWC or file a case before the International Court of Justice (ICJ) or an arbitration court (Economic and Social Commission for western Asia (ESCWA), 2011b).

There are also other provisions that are equally important. The first is the protection of the environment: states must ‘individually and where appropriate jointly, prevent, reduce and control the pollution of a shared water resource that may cause significant harm to other sharing states or their environment, including harm to human health or safety, to the use of the waters for any beneficial purpose or to the living resources of the shared water resource’ (Economic and Social Commission for western Asia (ESCWA), 2011b, p. 28). The second principle concerns water resources that are shared with non-Arab states. It supports the water rights of Arab nations, which must be obtained through existing agreements or by establishing new agreements based on international law (Economic and Social Commission for Western Asia (ESCWA), 2018).

Disagreements over specific provisions

Each of these provisions was subject to intense debate between the different stakeholders, especially the state representatives (Economic and Social Commission for western Asia (ESCWA), 2011b), but numerous disagreements persist concerning key provisions.

The scope of the instrument is still being debated. There are requests to revert to a convention that covers only shared groundwaters and excludes surface water resources. Others would prefer to include surface water and groundwater within the scope of the instrument, as there is a great dependence on both resources. The Arab countries agreed on the use of the term ‘shared’, instead of ‘transboundary’ or ‘international’, even though the three terms are similar from a legal perspective. They disagreed over the prior notification of planned measures, and mainly over the ‘second paragraph of Article 7’ related to these measures, which ‘outlines the consultations and negotiations between the States in view of avoiding or alleviating the possible effects of the planned measures’ (Economic and Social Commission for Western Asia (ESCWA), 2018, p. 10). In the draft text, this debate centred on whether or not the words ‘prior to execution’ should be included in the second paragraph of Article 7. No actual decision was reached by the states on this point. To avoid deadlock, the approach taken in Part III of the Watercourses Convention might offer a way forward (Economic and Social Commission for Western Asia (ESCWA), 2018; Salman, 2007; UNWC, 1997).

In the context of the principle of equitable and reasonable utilization, some states suggested the inclusion of the word ‘vital’ in the second paragraph of the relevant Article to restrict current and future water needs. Under this scenario, these needs would be limited to basic water needs. Others suggested adding this term in paragraph three, related to drinking water needs and domestic water uses. This suggestion is in line with Article 10(2) of the Watercourses Convention. Some Arab states objected to the use of the word ‘appreciable’ instead of ‘significant’ when addressing the obligation not to cause harm. They called for the use of the word ‘significant’, since this is stronger than ‘appreciable’ and the harm has to be more than unimportant in accordance with international water law. This term also provides flexibility, since it is ‘determined on a case by case basis through “factual considerations”’ and depending on each specific situation (Economic and Social Commission for Western Asia (ESCWA), 2018, p. 12).

States are requested in the instrument to ‘prepare “when necessary” plans to face possible emergency situations in cooperation with other States which could be affected’ (Economic and Social Commission for Western Asia (ESCWA), 2018, p. 12). The disagreement was over the term ‘when necessary’, and it was suggested that the phrase should be removed so that there was a continuing obligation on states, not only an obligation when it is necessary. Some Arab states also suggested adding the words ‘in case of disagreement’ before the provision about resorting to dispute settlement to solve a dispute. These words would be added before the provisions about states being able to resort to ‘peaceful means of settlement such as negotiations, or request good offices or mediation or refer to fact-finding, conciliation or arbitration’ (Economic and Social Commission for Western Asia (ESCWA), 2018, p. 12).

Some Arab states also advocated changing the title of the provision ‘Shared waters with non-Arab States’ to ‘Shared waters between Arab and other States’, which is clearer and more explicit. They also called for an amendment to introduce active support for Arab countries sharing waters with non-Arab states. The number of ratifications required for the entry into force of this instrument was also the subject of disagreement, as a proposal was made to increase the number from seven to two-thirds of all members. Finally, some states requested that any amendment to the convention would have to be agreed by all the parties (Economic and Social Commission for Western Asia (ESCWA), 2018).

It is in this context that the focus has shifted from a Draft Arab Water Convention to the Common Guiding Principles for Cooperation. Several versions of this instrument have been examined and amended, and several of the principles are similar to those in the Draft Arab Water Convention (The Technical Secretariat of the Arab Ministerial Council for Water, the Environment, Housing and Water Resources Department, the Economic Sector, 2019). This reality and the existing disagreements beg the question of whether a regional water convention addressing the Arab world is actually needed. This question will be addressed in the following sections.

Summary

The efforts made in recent decades towards the adoption of a Draft Arab Water Convention are commendable, especially in terms of the way the draft relies on international water law rules and principles while also taking into account the specificities of the region such as the protection of Arab water rights. Like any instrument, this mechanism included provisions that created disagreements among the states that would adopt it. The following sections will address whether such an instrument is actually needed.

Arguments in support of the establishment of the Draft Arab Water Convention

Several arguments have been put forward by scholars and water experts in support of the establishment of the Draft Arab Water Convention. This section will examine the five main arguments in favour of the adoption of such a treaty.

A unified front in the face of external water security threats

Arab countries share numerous freshwater resources with non-Arab countries and are usually located downstream (in the case of surface water), making them vulnerable to the actions and measures taken by non-Arab countries upstream. Cooperation in this context, through a unified strategy for the protection of the interests of Arab states, would help the Arab countries to face the external threats to their water security (Economic and Social Commission for Western Asia (ESCWA), 2011a). This instrument would also fill the legal vacuum that exists, as almost all the transboundary water resources in the Arab world are managed unilaterally by the states (Zubari, 2019). The majority of freshwater resources shared with non-Arab countries do not have inclusive treaties regulating the sharing of water because the existing treaties are partial and incomplete (Attia et al., 2009).

Moreover, the few existing agreements are in many instances bilateral and usually exclude countries that share the same resource. Even the agreements that do exist do not adequately address the management of water resources. For instance, the agreements related to the Nile, the Jordan and the Tigris–Euphrates do not effectively address the governance of these river basins, given the absence of concrete cooperation between all the nations sharing the river basins, and they do not include the main principles of international water law (particularly the principle of equitable and reasonable utilization and the obligation not to cause significant harm (Zubari, 2019)). Instead, they include provisions related to, for instance, the division of benefits, technical cooperation and negotiation procedures (Nile Agreement 1959, United Arab Republic and Sudan, 1959). Several bilateral agreements have been adopted for the Nile, Tigris and Euphrates river basins, but no comprehensive international treaty including all the states sharing these basins has been adopted. The Jordan river is still without a treaty including all relevant countries, with Syria and Lebanon being far from signing such an agreement with Israel (Attia et al., 2009). In fact, the Senegal River is the only river for which a comprehensive treaty has been established; this treaty was adopted in 1972, and currently the four Senegal River riparian countries are party to it (Odili, 2018).

The situation is worse for transboundary aquifers, as very few shared groundwater agreements have been adopted globally. One successful example is the Agreement on the Nubian Sandstone Aquifer System shared between Libya, Egypt, north-eastern Chad, and northern Sudan. This treaty is entitled ‘Agreement on the Constitution of the Joint Authority for the Study and Development of the Nubian Sandstone Aquifer Waters’ (Stephan, 2015, p. 490). All the nations sharing the aquifer are parties to the agreement, which establishes a joint authority for the management of the aquifer (Stephan, 2015).⁸

Adopting a regional convention would follow the general trend on the basis of which new institutions, resolutions and strategies are being adopted by bodies such as the AMWC to ensure the good governance of freshwater resources at the regional level (Zubari, 2019). In fact, the AMWC has been adopting numerous resolutions and strategies to secure shared freshwaters in the Arab world, such as the strategy of enhancing the negotiating abilities of the Arab countries with non-Arab countries concerning shared freshwater resources and supporting the water rights of Arab countries (The Technical Secretariat of the Arab Ministerial Council for Water, the Environment,

Housing and Water Resources Department, the Economic Sector, 2019). An Arab Water Convention would in practice provide a common regional vision and a legal basis for addressing regional priorities, mainly water allocation (Mechlem, 2013), which are under threat from non-Arab countries.

One unified vision tailored to the region despite the diverging interests

Arab countries have established certain agreements on freshwater resources that are shared between them alone.⁹ Despite the existence of some modalities and agreements for cooperation, conflicts and tensions have occurred (Stephan, 2015). Unfortunately, Arab countries do not share similar interests and positions when it comes to shared freshwater resources. This reality results in them supporting different rules and management principles (Economic and Social commission for western Asia (ESCWA), 2011b). This situation occurs especially when upstream countries are affected or harmed 'by the foreclosure of their future uses of water, caused by the prior use, and the claiming of rights to such water by the downstream riparians' (Salman, 2010, p. 351).

Local circumstances and conditions in different parts of the region have resulted in several different positions. Some Arab countries (those who have ratified the UNWC) approve the supremacy of the principle of equitable and reasonable utilization 'in an effort to minimize their losses and establish, as much as possible, a quantitative share to international rivers' (Economic and Social commission for western Asia (ESCWA), 2011b, p. 14). They would also wish that the non-harm rule had heavier weight. Other countries, mainly Egypt, are seeking to maintain the status quo based on historical allocation agreements. They believe that any change in the status quo would have a negative effect on their existing water share, and this led them to oppose the UNWC because they saw it as favouring the principle of equitable and reasonable utilization. Finally, the Arab countries who do not share freshwater resources make up their minds on the basis of political interests and a feeling of solidarity with one of the two positions mentioned above (Economic and Social commission for western Asia (ESCWA), 2011b). For instance, the Gulf Cooperation Council countries and Arab investors are seeking to invest in agricultural development in Sudan, benefiting from the Nile river basin to ensure their food security (Hanna, 2016).

The same local circumstances and conditions have also led to the mismanagement of transboundary water resources that are shared only between Arab countries, when the absence of non-Arab countries should have facilitated the governance of these resources (Al-Zubari, 2014). The Disi aquifer, which is shared between Saudi Arabia and Jordan, is being depleted as a result of its irresponsible exploitation by both countries (Swain, 2004). The Angad-Maghnia unconfined aquifer and the Jbel-Hamra confined aquifer, both of which are shared between Morocco and Algeria, are overexploited (Drouiche et al., 2020). Even when Arab countries decide to cooperate for the management of shared freshwaters, such goodwill does not necessarily translate into fruitful cooperation. For instance, the Al-Wehda dam built on the Yarmouk river by Syria and Jordan in 2004 did not provide the expected amount of water for irrigation, drinking and electricity generation (Salman, 2014). Adopting a unified vision tailored to the region is needed to address the above-mentioned issues.

Technical guidance and support through basin-specific treaties or follow-up agreements and instruments

The Arab world is suffering from a water governance crisis, as existing water challenges such as water scarcity are not being adequately addressed. This is because of ‘unclear and overlapping responsibilities, inefficient institutions, insufficient funding, centralized decision-making, limited public awareness and ineffective regulations and enforcement’ (United Nations Development Programme, 2013, p. 1). These factors have affected the achievement of water security connected to environmental, social, and economic concerns as well as to food security, climate change and the water–energy nexus. In the transboundary water context, the Draft Arab Water Convention could help to initiate the necessary reform process, in which the establishment of international agreements represents one element alongside many others, mainly for ‘reorienting policy, reforming institutions, promoting education and awareness, increasing stakeholder participation and linking policy to research and development’ (United Nations Development Programme, 2013, p. 1). This has occurred, for instance, in Southern Africa with the adoption of the SADC Protocol leading to policies, strategies and plans to ensure cooperation between the Southern African nations, such as the ‘2000 SADC Vision for Water, Life and Environment; SADC water policy; SADC water strategy; regional strategic action plans’, which are important documents beyond the Protocol for enhancing water management at the national and basin level (Zikhali-Nyoni, 2021, p. 6). Similarly, the Water Convention has supported the establishment of joint institutions and has strengthened cooperation from political and technical perspectives. This occurred in different circumstances, economic transitions and political situations after the disappearance of the Soviet Union and the dissolution of Yugoslavia and Czechoslovakia (United Nations Economic Commission for Europe, 2013). Likewise, a new instrument can respond to the need for a multidimensional approach to guarantee the equitable use of water, its effective use and role in economic growth, the participation of all stakeholders, sustainable water use and the protection of ecosystems (United Nations Development Programme, 2013).

The Draft Arab Water Convention would be considered as a framework convention based on which future agreements could be made to address the different challenges facing effective water governance, such as water pollution (Economic and Social Commission for Western Asia (ESCWA), 2011a). Such regional framework conventions, like the SADC Protocol in Southern Africa and the Al-Maty agreement in Central Asia, have been adopted previously in different places (Rahaman, 2012; Salman, 2004). Several different agreements followed the adoption of the Al-Maty agreement, such as the Agreement on the Use of Water and Energy Resources of the Syr Darya Basin (1998) and the Framework Convention on Environmental Protection for Sustainable Development in Central Asia (2006) (Ibrahim, 2020).

The Draft Arab Water Convention could also be used as a framework convention on the basis of which new follow-up documents or agreements addressing specific water matters could be established. This scenario occurred, for example, between China and Kazakhstan after the adoption of the Agreement between the Government of Kazakhstan and the Government of China on Cooperation in the Use and Protection of

Transboundary Rivers in 2001. After this framework convention, the parties adopted different agreements, policies and plans, addressing, for instance, the ‘Development of Scientific-Research Cooperation; Water Quality; Protection of Transboundary Rivers; Cooperation on Environmental Protection . . . ’ (Ho, 2017, p. 150).

Further basin-specific agreements or treaties, and instruments addressing particular water matters such as water quality or the exchange of data and information, based on an Arab water convention would respond to the need for a more flexible water governance approach. The shared basins in the Arab world, as elsewhere, are subject to changes and new challenges occurring over time, and these require either the updating of existing regulations or the adoption of new ones. Flexibility in this context would lead to the adoption of rules and policies that are implementable, creating adaptive water management systems (United Nations Development Programme, 2013).

Enhancing conjunctive water management

Arab countries are increasingly using groundwater, given that surface water has reached its maximum use in some places, while the demand for freshwater resources has grown in countries that were already relying on groundwater. This has resulted in declining water reserves in fossil and renewable groundwater resources. At least ten Arab countries extract groundwater in quantities greater than the actual annual recharge, while fossil aquifers are also being heavily exploited. These countries include Saudi Arabia, Libya, and Yemen. Regulation of groundwater has not been effective, given the need for costly and extensive monitoring systems. Illegal drilling is also rampant in many Arab states, despite the existence of drilling regulations, as the monitoring of abstraction is often non-existent. Despite the growing importance of groundwater, it is not being conjunctively managed with surface water on the basis of water resources management plans (Economic and Social commission for western Asia (ESCWA), 2011b).

Conjunctive water management is often underestimated as a solution, given the existence of only a few treaties that include substantive provisions addressing surface water and groundwater simultaneously (Lautze et al., 2018), even though the ‘management of water resources should incorporate both surface and groundwater resources according to a basin level integrated management plan’ (Economic and Social commission for western Asia (ESCWA), 2011b, p. 13). This is very difficult as the interconnection between the two types of resource is hard to determine and requires hydrogeological examinations and field investigations. The Draft Arab Water Convention provides a solution to this problem, as it covers both transboundary surface water and groundwater resources (Economic and Social commission for western Asia (ESCWA), 2011b), even though its scope was initially amended to cover only transboundary aquifers, despite the efforts made to highlight the added value of conjunctive water management (Economic and Social Commission for Western Asia (ESCWA), 2011c). This is relevant as numerous aquifers are transboundary, extending across several political borders. Back then, the absence of an international instrument or convention addressing all types of shared water resources represented an opportunity for the Arab world to adopt a progressive and comprehensive instrument (Economic and Social commission for western Asia (ESCWA), 2011b). This opportunity is still present, as only the

Convention on the Protection and Use of Transboundary Watercourses and International Lakes (UNECE Water Convention) of 1992 covers all types of transboundary freshwater resources.

It is worth mentioning that surface water and groundwater resources are being used conjunctively in certain places in the Arab world in the domestic and transboundary context; for example, this is being done in the Nile Delta for different purposes such as irrigation, drinking and sanitation, and industrial use. The opportunity exists to ensure that these resources are managed conjunctively everywhere in the region (Closas & Molle, 2016). What is lacking are laws and policies to regulate such use (Abu-Zeid & Hamdy, 2008) in the transboundary, but also the domestic, context. Some institutional arrangements facilitating conjunctive water management, such as groundwater institutional arrangements, are emerging in certain Arab countries (World Bank Group, 2017). Still, the conjunctive management of water resources remains a blind spot in water governance in the Arab world (van Steenberg & El Haouari, 2011) and the Draft Arab Water Convention could provide much-needed support by covering both resources within its scope.

Effective solution of disputes by the Arab Ministerial Water Council based on the Draft Arab Water Convention

The establishment of the AMWC by the Arab League and its members in 2008 reflected a unified political will of the states in the region to shift the conversation concerning water matters from the technical level to the political one (Economic and Social Commission for Western Asia (ESCWA), 2011a). It also highlighted the Arab states desire to deal with regional water issues, including matters related to the management of shared water resources (Economic and Social commission for western Asia (ESCWA), 2011b). Its establishment came 'as an important development and agreement of the Arab States to join in a coordinated effort towards achieving water security at the regional and state level and to face the water challenges in the region' (Attia et al., 2009, p. 40). Since then, the AMWC has adopted numerous resolutions, documents, declarations and so on in the context of events and conferences occurring on an annual basis (The Technical Secretariat of the Arab Ministerial Council for Water, the Environment, Housing and Water Resources Department, the Economic Sector, 2019).

Among the objectives of the Council are supporting Arab efforts and coordinating these through an Arab strategy to 'face water problems and strengthen Arab water security, improving water demand management, developing and conserving water resources in terms of quantity and quality, activating the integrated management of water resources, and protection of Arab water rights' (Economic and Social Commission for Western Asia (ESCWA), 2011a, p. 31). The AMWC is supported by the following bodies: the executive office of the Council, which has Arab ministers; the scientific technical advisory committee supporting the AMWC and its executive office, which is formed of 'technical representatives from the member countries of the League of Arab States, and experts representing regional organizations and representatives of a number of non-governmental organizations working at the regional level' (Economic and Social Commission for Western Asia (ESCWA), 2011a, p. 31); and the technical secretariat of the Council, which 'coordinates logistical and administrative support for the Arab

Ministerial Council for Water and facilitates the work of the Scientific Technical Advisory Committee' (Economic and Social Commission for Western Asia (ESCWA), 2011a, p. 31).

The existence of different bodies at the AMWC (the executive office of the Council, the scientific technical advisory committee and the technical secretariat of the Council) can provide much-needed procedural support for addressing and solving potential disputes between Arab states concerning shared water resources. This is because of the different competences of the various bodies, some of which were mentioned in the previous paragraph. For instance, the scientific and technical advisory committee 'discusses topics and issues raised in Board meetings, and makes recommendations on the course of action, which is submitted to the Executive Office' (Economic and Social Commission for Western Asia (ESCWA), 2011a, p. 31). The alternative is either having more tensions and disputes between states (Petersen-Perlman et al., 2017) or bringing the disputes before an international court such as the ICJ (if both parties agree to do so) or an international arbitration court, as has already happened in water disputes (Kornfeld, 2019; Salman, 2006). In fact, the Draft Arab Water Convention contains a provision on dispute settlement, as mentioned earlier, under which parties are encouraged to solve problems through peaceful means in accordance with the Charter of the Arab League. In the case of disagreement, the parties can ask for mediation or reconciliation by the AMWC, or can allow the ICJ or an arbitration court to decide on the dispute (Economic and Social Commission for western Asia (ESCWA), 2011b).

The AMWC, by providing a neutral platform through its different bodies, may enable water disputes between Arab countries to be solved in an amicable manner. This is not to say that the task is easy, given the failure of the Arab League over the years to solve inter-Arab disputes (Dakhlallah, 2012). One can only hope that the AMWC will be capable of providing the necessary support for solving water disputes between Arab countries.

Summary

This section has presented the arguments in favour of the establishment of a Draft Arab Water Convention. In the author's opinion, all the arguments presented and examined make a strong case for the establishment of such a treaty.

Arguments against the establishment of the Draft Arab Water Convention

Several arguments have been put forward by scholars and water experts against the establishment of the Draft Arab Water Convention. This section will examine the five main arguments against the adoption of such a treaty.

Over 50% of freshwater resources originate from outside the Arab region

Arab States share freshwater resources with numerous non-Arab countries¹⁰ (Economic and Social Commission for Western Asia (ESCWA), 2018). The principal danger facing the Arab world is that more than 50% of its freshwater resources come from outside the region (Alsharhan & Rizk, 2020). This figure increases to 60% in the case of shared rivers

(Salman, 2014). This reality puts Arab countries, which in the majority of cases are downstream states, at the mercy of upstream non-Arab countries such as Turkey (as regards the Tigris and Euphrates) and Ethiopia (as regards the Nile) (Alsharhan & Rizk, 2020).

Arab countries that are downstream suffer from the unilateral actions and measures of non-Arab upstream countries seeking to exploit their shared water resources (Economic and Social Commission for Western Asia (ESCWA), 2011a). Downstream countries are usually in favour of the obligation stipulated within international water law not to cause significant harm, as they believe that this obligation 'protects their existing uses, and prohibits upstream riparians from undertaking any projects or measures which would affect these uses' (Salman, 2010, pp. 350–351). In contrast, upstream countries are typically in favour of the principle of equitable and reasonable utilization, as they perceive that this provides them with the basis for obtaining their fair share of the shared freshwater resource in question (Salman, 2010). Upstream countries often have the perception that they have the power to control the water resources originating from their territories, especially in the case of powerful upstream and weak downstream countries and in the absence of transboundary water agreements. The economic and social developments occurring over recent decades have further worsened this situation because of the increasing demand for water. This has led to increased investment in dams and water treatment facilities, and the construction of power plants (Economic and Social Commission for Western Asia (ESCWA), 2011a). The challenges facing the management of transboundary aquifers with Arab and non-Arab countries are more complicated because of the hidden nature of this resource (Al-Zubari, 2014).

The Draft Arab Water Convention includes the principle of equitable and reasonable utilization and the obligation not to cause significant harm, thus providing flexibility for upstream and downstream countries. However, the instrument is rather exclusive in focusing on regulating shared water resources between Arab countries and supporting their claims against non-Arab countries. The instrument includes a specific provision on shared waters with non-Arab states in support of Arab water rights, and there were even calls to strengthen this provision further. The instrument also includes a provision on water in occupied Arab territories (Economic and Social Commission for Western Asia (ESCWA), 2018). Not all regional conventions are exclusive. For instance, the status of the 1992 Water Convention has changed from regional to global after it was amended in 2003 and the amendment entered into force in 2013. Based on this, countries that are not members of the United Nations Economic Commission of Europe (UNECE) can accede to the convention (Rieu-Clarke & Kinna, 2014) and, indeed, some, such as Chad and Ghana, have already done so (United Nations treaty collection, 2003). The EU WFD, despite being a regional agreement, is in force in nations associated with the EU like Norway and neighbouring countries like Turkey (Fritsch, 2020), while also being applied by non-EU countries sharing basins with EU states (JDS2, n.d.). Despite developments like this occurring elsewhere, it is highly unlikely that the Draft Arab Water Convention would have an impact on shared water resources between Arab and non-Arab countries, beyond supporting Arab water rights. In fact, it may be seen by these countries as a challenge, by establishing an Arab alliance against them.

Arab countries sharing freshwaters have different interests

One would assume that the existence of non-Arab nations competing over the exploitation of similar shared basins would push Arab countries towards a common front to gain the upper hand, especially given that non-Arab countries are usually upstream (Selby, 2005). Nevertheless, Arab countries have not been successful in presenting a united front when sharing the same freshwater resource. Several transboundary basins in the region suffer from this problem, with past and current disputes between Arab countries attributed to transboundary water resources (Hudson, n.d.). In this context, the League of Arab Nations has played an important role through its creation of the AMWC, its support for the adoption of the Draft Arab Water Convention and its support for the meetings and the strategies, plans and other instruments and documents adopted over the past decade (Economic and Social Commission for Western Asia (ESCWA), 2011a). This section will briefly examine the three most important and controversial disputes between Arab countries sharing freshwater resources.

The Arab countries sharing the Jordan River basin (Lebanon, Jordan, Syria, and the West Bank–Gaza), along with Israel, have not been successful in making compromises to address their water needs. This reality stems from the fact that Lebanon and Syria are upstream countries while Jordan, the West Bank–Gaza and Israel are downstream. These latter countries have been demanding a larger supply of freshwater (Hudson, n.d.). This reality worsens when considering climate change and the recent influx of refugees to Jordan and Lebanon from Syria (Hussein et al., 2020).

The Tigris and Euphrates river basin shared by Turkey, Syria, Iran, Saudi Arabia, Iraq and Kuwait has caused division between the riparian countries, and some of them were very close to war over this matter in 1975 (Hudson, n.d.). In fact, the countries are in constant disagreement over the sharing of the rivers, given their growing need for water. Despite the existence of various treaties, the global regulatory framework in place is not successful in pushing the states to make compromises and concessions, which hinders potential cooperation (Kirschner & Tiroch, 2013). This is due to the small amount of data and information exchanged between the countries (if such exchange occurs at all), the dominance of national interests and political issues (mainly security concerns), and the unwillingness of upstream countries to cooperate in the context of a legal framework, as they perceive that they will lose from any cooperation (Al-Ansari, 2019).

The Grand Ethiopian Renaissance Dam (GERD) on the Blue Nile river, close to the border with Sudan, represents the clearest example of two Arab countries (Egypt and Sudan) turning on each other after forming an alliance against a third, non-Arab, country (Ethiopia), as a result of their diverging interests. Initially, both Arab countries objected to the building of the dam by Ethiopia in 2011, claiming that it would cause great damage. However, the Sudanese position was not clear, as some Sudanese ministries and officials welcomed the building of the dam while others did not. In 2013, Sudan declared its support for the GERD as the government perceived several potential benefits, such as the reduction of the risk of floods by detaining water and regulating the water flow in the river all year long, which is necessary for organizing electricity generation and increasing crop rotations (Salman, 2014).

For these reasons, establishing a Draft Arab Water Convention may not be successful: Arab countries sharing the same water have different interests. Moreover, the successful adoption of such an instrument does not guarantee its effective implementation, again given the divergent Arab water interests.

International conventions already exist and some Arab countries are party to them

International water law has been developing over several decades, and binding and non-binding legal instruments have been adopted to address shared freshwater resources. Two conventions have been adopted by the international community: the UNWC in 1997 and in 1992 the UNECE Water Convention, which was initially regional and was then amended to become a global treaty. Both conventions entered into force after being ratified by the required number of states. In 2008 the international community also adopted a non-binding instrument entitled Draft Articles on the Law of Transboundary Aquifers (Draft Articles) (Economic and Social Commission for Western Asia (ESCWA), 2011a). The UNWC covers shared surface water and groundwater, but excludes from its scope transboundary aquifers that are not connected to surface waters. The UNECE Water Convention covers all types of shared surface water and groundwater, while the Draft Articles solely address transboundary aquifers (Economic and Social Commission for Western Asia (ESCWA), 2018).

Given the importance of international water law, Arab countries are seeking to understand and fully grasp the principles and provisions included within the conventions and instruments so that they can address their own shared freshwater resources (Economic and Social Commission for Western Asia (ESCWA), 2011a). In fact, several Arab countries are members of the UNWC: Iraq (2001), Jordan (1999), Lebanon (1999), Libya (2005), Morocco (2011), Palestine (2015), Qatar (2002), Syrian Arab Republic (1998) and Tunisia (2009) (Economic and Social Commission for Western Asia (ESCWA), 2018, p. 5). Moreover, countries like Iraq, Jordan, Lebanon, and Tunisia have shown an interest in joining the UNECE Water Convention, and have started national procedures to that end (Economic and Social Commission for Western Asia (ESCWA), 2018). One would expect similar outcomes when the Draft Articles become a binding convention. Still, as can be seen, not all the Arab countries sharing freshwaters are parties to the conventions.

These treaties establish explicit rules and principles on the basis of which basin-specific water agreements can be adopted between countries. The provisions have a general nature, providing states with a margin of flexibility to adopt water treaties tailored to the needs of each basin state. Examples of provisions included within these conventions and instruments include the principle of equitable and reasonable utilization, the obligation not to cause significant harm, the duty to cooperate, the protection of ecosystems, the regular exchange of data and information, and so on (McIntyre, 2010). In fact, the UNWC served as the basis for preparing the Draft Arab Water Convention. As mentioned earlier, this latter instrument includes numerous provisions that are similar to those within international water conventions and instruments, such as the obligation to cooperate, the regular exchange of data and information, equitable and reasonable utilization, the obligation not to cause significant harm, the protection of the environment, which includes the protection of ecosystems as well as the

prevention and control of pollution, emergency situations, settlement of disputes, and institutional arrangements (Economic and Social Commission for Western Asia (ESCWA), 2018). It does not seem that a regional Arab water convention is actually needed, given the existence of international water conventions of which Arab countries are members, and the similarities between the principles of the Draft Arab Water Convention and those of international water conventions and instruments. This is not to say that such a convention would not be important. For instance, the Revised SADC Protocol, which covers the SADC region and some of whose members are also members of the UNWC, plays a great role in enhancing transboundary water cooperation in the region (Boge, 2005; Salman, 2004).

The provisions do not address the characteristics of shared aquifers

The latest version of the Draft Arab Water Convention covers shared surface water and groundwater simultaneously. This is considered to be a wise decision, given that many aquifers are hydrologically connected to surface water, resulting in the need to address them as one hydrological unit (Economic and Social Commission for Western Asia (ESCWA), 2018). The scope of the proposed instrument included definitions of different terms: shared drainage basin; shared aquifer; shared water resources; surface water; groundwater; and pollution. A shared aquifer means a ‘permeable water bearing geological formation extending between two or more Arab states and underlain by a less permeable layer’ (Economic and Social Commission for Western Asia (ESCWA), 2011b, p. 19). Shared water resources means ‘fresh water resources, whether surface water or groundwater that are shared by two or more Arab States’ (Economic and Social Commission for Western Asia (ESCWA), 2011b, p. 19). Groundwater means ‘water contained in an aquifer, whether or not the aquifer receives significant contemporary water recharge’ (Economic and Social Commission for Western Asia (ESCWA), 2011b, p. 19).

It is interesting to note that, by defining groundwater and aquifers, the instrument makes a step forward in comparison to instruments such as the Draft Articles of 2008, which were criticized for focusing solely on the term aquifer and not mentioning groundwater at all (Eckstein, 2007). However, a closer look at the provisions within the instrument shows that, despite transboundary aquifers being covered, these resources have not been addressed adequately when their particular nature is considered (Economic and Social Commission for Western Asia (ESCWA), 2018). Despite the existence of numerous similarities between groundwater and surface water, groundwater resources have unique characteristics that must be considered when attempting to establish a global regulatory framework.

Groundwater is typically more vulnerable than surface water to pollution and other forms of contamination because it generally flows at much slower rates than surface water. The slow flow can result in contamination and other problems manifesting at equally slower rates, compared with contamination of surface waters, as well as reduction in an aquifer’s natural recuperative abilities. Additionally, reclamation of a polluted aquifer, if at all possible, can be extremely difficult and expensive and can render the aquifer unusable for years, decades, or longer. Furthermore, due to its physical location, often at considerable depths, groundwater can be substantially more difficult and costly to monitor than surface waters (Eckstein, 2017, pp. 81–82).

Groundwater represents the second major water resource in the Arab world, but in some countries such as Jordan and Libya groundwater dependency reaches more than 80%. Moreover, Arab countries that are rich in surface water are increasingly relying on groundwater to meet their growing demands (Al-Zubari, 2014). However, none of the provisions of the instrument consider the characteristics of groundwater mentioned above, despite the importance of this resource. Hence, one may question the effectiveness of the Draft Arab Water Convention in ensuring the sustainable exploitation and protection of transboundary aquifers. It is worth mentioning in this context that the non-binding instrument 'Common Guiding Principles for Cooperation' also suffers from similar shortcomings (The Technical Secretariat of the Arab Ministerial Council for Water, the Environment, Housing and Water Resources Department, the Economic Sector, 2019). This reality can be set against the groundwater developments occurring in other basins as a result of the adoption of a regional instrument. For instance, the SADC countries are focusing on addressing transboundary aquifers through the adoption of strategic action plans focused on groundwater in the context of the SADC Protocol (South African Development Community, 2016). Meanwhile the UNECE Secretariat has recently adopted the Model Provisions on Transboundary Groundwaters as a follow-up to the Water Convention (United Nations Economic Commission for Europe, 2014).

The Arab Ministerial Water Council may not be effective in solving disputes

One cannot deny the important role the AMWC has played since its establishment in pushing towards a common Arab water strategy and a Draft Arab Water Convention for addressing shared freshwaters in the region. In fact, since its creation, the Council has also adopted numerous resolutions and declarations and hosted events to tackle the freshwater crisis in the Arab world (Economic and Social Commission for Western Asia (ESCWA), 2011c). The Council is also expected to play an important role in the coming years and decades as water becomes more scarce and as demand for it increases annually. The Council will play a leading role in promoting good water governance (Attia et al., 2009). The AMWC is already, for instance, organizing conferences and meetings on the future of Arab water security, with the objectives of gaining insights, making plans and strategies and fostering cooperation among Arab nations over water issues (Abdel-Gawad, 2015).

Nonetheless, the water crisis in the Arab world is extremely complicated, as the region is experiencing the fastest growing water deficit globally. This deficit is worsened by 'uneven geographical and seasonal distribution, incomplete access to water and sanitation services in remote rural areas, as well as pollution and degradation of aquatic ecosystems' (Hefny, 2011, p. 36). Water resources have been deteriorating for years in terms of quantity and quality. The sectoral approaches adopted for the management of water resources also hinder the capacity of Arab countries to tackle water issues, especially as these nations are suffering from a capacity gap affecting their abilities to address the 'social, economic, and political challenges facing the management of their water resources' (Hefny, 2011, p. 36). Other problems include 'lack of familiarity with participatory and integrated management approaches; fragmented institutional structures and conflicting mandates; inadequate

water valuation and pricing; imbalanced sectoral water allocation; and inadequate investment in the needed infrastructure and capacity development’ (Hefny, 2011, p. 36). In addition to these factors, there are other general elements that affect water governance in the transboundary context: ‘interdependence of people and responsibilities; jurisdictional ambiguities; functional overlap; competition for scarce resources; differences in organizational status and influence; incompatible objectives and methods; differences in behavioural styles; differences in information; distortions in communications; unmet expectations; unmet needs or interests; unequal power or authority; misperceptions; and others’ (Hefny, 2011, p. 34).

Coordination is needed among the countries of the region, such as through the establishment of agreements and collective action, to address the specific and general issues facing water governance in the Arab world (Suárez-Varela et al., 2018). However, water has become a key environmental factor in the politics of the region, influencing domestic and foreign policies and playing an important geopolitical role, and this has resulted in several water disputes such as those mentioned earlier (Hefny, 2011). Hence, regardless of the intentions and the important role played by the AMWC, the reality described in this section makes it extremely difficult for a regional organization, whether it be the AMWC or some other organization, to solve transboundary water problems effectively. A focus on specific basins, and on establishing agreements tailored to those basins, may be more efficient. Nevertheless, it is worth mentioning that progressive dispute settlement mechanisms have been adopted elsewhere. For instance, the UNECE established an Implementation Committee under the Water Convention to support the implementation of, and compliance with, the convention. This mechanism is described as ‘simple, non-confrontational, non-adversarial, transparent, supportive and cooperative in nature’ (United Nations Economic Commission for Europe, 2012). Meanwhile, the SADC has established the Southern African Development Community Tribunal (currently suspended) to solve disputes, including water conflicts, that are not solved amicably between the parties (Kinna, 2015).

Summary

There are compelling arguments against the establishment of a Draft Arab Water Convention. These arguments are explored in the sections above. In the author’s opinion, some of these arguments make an extremely strong case against the establishment of such a treaty, while others do not.

Recommendations regarding the Draft Arab Water Convention

Given the arguments against the establishment of a Draft Arab Water Convention, the present section provides recommendations to ensure that an effective treaty is adopted that addresses some of the shortcomings mentioned above.

The instrument should cover only freshwater resources shared between Arab nations

The fact that more than 50% of freshwater resources originate from outside the Arab region (Alsharhan & Rizk, 2020) means that it would, in theory, be easier to implement a Draft Arab Water Convention when the nations sharing the freshwater are only Arab ones. Despite the complexity, it is still much easier to address the divergent interests of Arab countries (Hudson, n.d.) in the framework of a legal instrument than it is to attempt to do the same in the presence of a non-Arab state. Non-Arab states will never accept the regulation of a shared basin on the basis of the Draft Arab Water Convention, which is clearly drafted in favour of Arab countries and in which specific provisions explicitly provide support for Arab water rights (Economic and Social Commission for Western Asia (ESCWA), 2018). Non-Arab states would instead insist on the adoption of basin-specific water agreements based on international water law, which they deem to be favourable to them. Hence, the scope of the Draft Arab Water Convention should be limited to freshwater resources that are shared between Arab nations. Limiting the scope of the instrument would provide it with a higher chance of success, even though there would still be a need to address other matters that may complicate its implementation, such as the divergent interests of the Arab nations or the access of some of them, but not others, to international water conventions (Economic and Social Commission for Western Asia (ESCWA), 2018; Hudson, n.d.).

Shared surface water resources should be included within the scope of the instrument

The majority of the freshwater resources that are only shared between Arab states are transboundary aquifers. Hence, one could wonder whether the Draft Arab Water Convention should only cover transboundary aquifers shared between Arab nations. This proposal has already been examined by the institutions that drafted the instrument as, at one point, its scope was limited to shared groundwater resources. It then reverted to covering all types of shared freshwater resources. One can argue in this context that the existence of the UNWC and the UNECE Water Convention, the accession of several Arab countries to the UNWC, and the potential accession of other Arab nations to both conventions in the future provide the necessary legal support for the adoption of basin-specific water agreements. A counterargument is that it may be the case that not all Arab nations sharing these surface water resources are seeking to join international water conventions, and that they would be more comfortable in joining a regional convention. Given the existence of some surface water resources that are only shared between Arab countries (such as An Nahr Al Kabir Al Janoubi, Atui, Daoura, Dra, Guir, Medjerda, Oued Bon Naima and Tafna (Economic and Social Commission for Western Asia (ESCWA), 2018), it would be wiser to provide the Arab nations sharing such resources with the necessary legal support in the general framework of a Draft Arab Water Convention.

The instrument should be amended to address the characteristics of transboundary aquifers

The scope of the instrument includes shared groundwater resources. Moreover, the proposed definitions in the instrument include the concept of a shared drainage basin, which means ‘a geographical area extending between two or more Arab states determined by the watershed limits of the system of waters, including surface and underground waters’ (Economic and Social Commission for Western Asia (ESCWA), 2011b, p. 19). The terms defined within the draft instrument include shared aquifer, shared water resources (which include transboundary aquifers) and finally groundwater. Also, from different reports, it is clear that the drafters of the Draft Arab Water Convention acknowledged the importance of the Draft Articles on the Law of Transboundary Aquifers, even though this is a non-binding instrument (Economic and Social Commission for Western Asia (ESCWA), 2011b). Nonetheless, the provisions of the suggested Arab instrument have a general nature, given that they address both shared groundwater and shared surface water (Economic and Social Commission for Western Asia (ESCWA), 2018). However, and as mentioned earlier, groundwater has special characteristics related to pollution, contamination, the recuperative abilities of an aquifer, the impact of pollution on an aquifer and the difficulty in monitoring such a resource, and these must be regulated (Eckstein, 2017). Hence, there is a need to expand the Draft Arab Water Convention (which is currently non-binding as it has not yet been adopted as a convention) to include either specific provisions addressing these characteristics or elements acknowledging them within the existing provisions. In this context, the Draft Articles on the Law of Transboundary Aquifers, despite their many shortcomings, can be used as a basis for such amendments (Eckstein & Sindico, 2014). Another instrument that can be used, despite its non-binding nature, is the Berlin Rules on Water Resources, and particularly Chapter VIII of these Rules which tackle groundwater resources (International Law Association, 2004). This chapter includes various provisions as follows: the application of general rules to aquifers; managing aquifers generally; the precautionary management of aquifers; the duty to acquire information; sustainability applied to groundwater; protecting aquifers and transboundary aquifers (International Law Association, 2004). In fact, this instrument also includes specific provisions that are not found within the Draft Articles, such as those related to conjunctive water management, integrated management, the right of access to water, public participation and access to information, the right to compensation, and many others (International Law Association, 2004). The Model Provisions on Transboundary Groundwaters can also be used as guidance, especially since they represent the most recent instrument adopted globally addressing transboundary aquifers and are based on the latest scientific understanding of this resource (United Nations Economic Commission for Europe, 2014).

In summary

In this section the author has offered several recommendations that would ensure that a convention at the regional level in the Arab world is effective. This is necessary to address existing transboundary water issues between Arab countries, be they surface water or groundwater issues, where the characteristics of transboundary aquifers must be considered.

Conclusion: is the Draft Arab Water Convention Really Needed?

Several arguments have been presented in this article addressing the pros and cons of adopting a Draft Arab Water Convention, and on the basis of these the author made specific recommendations for how such an instrument could be made effective. Regardless of whether such an instrument is adopted, the author is of the opinion that international water law provides a sufficient basis for the negotiation and drafting of basin-specific water agreements addressing shared surface water and groundwater between Arab and non-Arab states. In fact, the primary role of international water law is to provide such guidance for states looking to establish water agreements (Eckstein, 2011; Gander, 2014).

The adoption of regional water framework conventions with similar provisions does not add much value from a legal perspective. Such conventions may contain provisions that are tailored to the region and its shared watercourses, and nations may be more comfortable in becoming parties to regional conventions instead of global ones. Hence, even if such regional conventions may not make sense from a legal perspective, given the existence of two international watercourses conventions, they can make sense from a practical and political perspective for the reasons mentioned above. It all depends on the region, the shared watercourse, the context, the countries covered by the instrument and whether such an instrument would be effective.

In the case of the Arab world, an Arab Water Convention will be effective if it covers only surface water and groundwater shared between Arab nations and after the existing draft instrument has been amended to address the characteristics of transboundary aquifers. Even then, Arab nations can decide not to join the convention, or, if they do decide to be parties to the regional instrument, they can make their water claims on the basis of international water conventions.

List of Conventions	Abbreviations
Draft Legal Framework on Shared Water Resources in the Arab Region	Draft Arab Water Convention
Convention on the Law of the Non-navigational Uses of International Watercourses	Watercourses Convention, UNWC
Southern African Development Community Water Protocol	SADC Water Protocol
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 on Utilization and Protection of Water Resources from Interstate Sources	Almaty Agreement
Agreement on the Nubian Sandstone Aquifer System shared between Libya, Egypt, north-eastern Chad, and northern Sudan	NSAS
Agreement on the Use of Water and Energy Resources of the Syr Darya Basin	
Framework Convention on Environmental Protection for Sustainable Development in Central Asia	
Agreement between the Government of Kazakhstan and the Government of China on Cooperation in the Use and Protection of Transboundary Rivers	
Convention on the Protection and Use of Transboundary Watercourses and International Lakes	UNECE Water Convention
Draft Articles on the Law of Transboundary Aquifers	Draft Articles
List of Organizations	Acronyms
Arab Ministerial Water Council	AMWC
Center for Water Studies and Arab Water Security	
Economic and Social Commission for Western Asia	ESCWA
Southern African Development Community	SADC
Gulf Cooperation Council	GCC
World Bank Group	WBG
International Court of Justice	ICJ
International Law Commission	ILC

Notes

1. The Council was established after receiving approval from Arab water ministers in 2008. It was officially created in the same year during a meeting in Riyadh, Saudi Arabia. The AMWC aims to ‘develop cooperation and coordinate efforts between Arab countries in order to formulate an Arab strategy to confront water challenges and enhance Arab water security that will be a framework for programs and activities in all areas of water resources’ (Technical Secretariat of the Arab Ministerial Council for Water, 2009).
2. This centre is affiliated to the League of Arab Nations and was established in 1996 on the basis of a Decision of the Council of the League of Arab States at the ministerial level No. 5602 dated 9/15/1996. It is based in Damascus, Syria (Economic and Social Commission for western Asia (ESCWA), 1996).
3. The commission was established by the UN in 1973 to promote cooperation and development and to stimulate economic activities between the member countries (ESCWA, n.d.a). The commission ‘supports the efforts of the Arab Ministerial Water Council to implement its Arab Strategy for Water Security in the Arab Region to Meet the Challenges and Future Needs for Sustainable Development’ (ESCWA, n.d.b).
4. The Arab world is made up of the 22 nations that are members of the Arab League, which are: Algeria, Bahrain, Comoros, Djibouti, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Mauritania (including the Poular population of southern Mauritania for the purposes of this article), Morocco, Oman, Palestine, Qatar, Saudi Arabia, Somalia, Sudan (excluding South Sudan), Syria, Tunisia, the United Arab Emirates and Yemen.
5. Surface water shared only between Arab states includes the An Nahr Al Kabir, Atui, Daoura, Medjerda, and Tafna. Surface water shared with non-Arab countries includes the Orontes, Euphrates, Jordan, Nile, and Senegal. Transboundary groundwaters shared only between Arab states include the Northwest Sahara Aquifer System (NWSAS); Western Aquifer Basin; Wasia-Biyadh-Aruma Aquifer System (North); Umm er Radhuma-Dammam Aquifer System (North); Basalt Aquifer System (South); and Disi Aquifer. Transboundary groundwaters shared with non-Arab states include: Irhazer-Illuemedden Basin; Senegalo-Mauritanian Basin; Nubian Sandstone Aquifer System (NSAS); Western Aquifer Basin; and Coastal Aquifer Basin. The list of shared freshwater resources provided is a non-exhaustive one (Economic and Social Commission for Western Asia (ESCWA), 2011a; Economic and Social Commission for Western Asia (ESCWA), 2018).
6. International water law is the sum of the international water conventions and instruments adopted at the international level that address transboundary water resources and the customary legal principles that may be incorporated within these mechanisms. Based on these conventions and instruments, regional and basin-specific agreements and mechanisms are adopted by the various nations sharing freshwaters. Hence, there are global legal instruments that are open to all countries to join; regional legal instruments; basin- and sub-basin-specific instruments; and bilateral instruments that cover some or all of the waters shared between two countries. The sources of international water law can be found in Article 38 of the International Court of Justice Statute, which highlights the following: ‘a. international conventions, whether general or particular, establishing rules expressly recognized by the contesting states; b. international custom, as evidence of a general practice accepted as law; c. the general principles of law recognized by civilized nations; and d. subject to the provisions of Article 59, judicial decisions and the teachings of the most highly qualified publicists of the various nations, as subsidiary means for the determination of rules of law’ (International Court of Justice, 1945, Art. 38). It is worth mentioning that customary international law related to transboundary waters may evolve not necessarily as a result of treaty law, but rather as a result of general practice accepted by countries as legally binding. Examples of customary international law that have evolved under general practice include the principle of equitable and reasonable utilization (Dellapenna, 2001). Customary rules do not necessarily only address water resources, but may also deal with environmental issues in general. Examples include ‘the obligation to prevent transboundary pollution and

the rules relating to responsibility and liability for such pollution, the obligation to cooperate, and the requirement for environmental impact assessment for projects having transboundary effects' (McIntyre, 2006, p. 161). These customary international law principles and others are currently evolving in the context of international water law (Wehling, 2020).

7. These arguments are either put forward by various scholars and international organizations or are based on the author's own observations and analysis.
8. Other treaties include the agreement first made in 1977, then re-negotiated in 2007, between France and Switzerland on the Genevese Aquifer; the agreement on the Guarani Aquifer, made in 2010 between Argentina, Brazil, Paraguay, and Uruguay; and the agreement on the Al-Sag/Al Disi Aquifer, made in 2015 between Jordan and Saudi Arabia. Other cooperative efforts are taking place in the context of the Irhazer-Illuemedden Basin shared between Algeria, Benin, Mali, Niger, and Nigeria, and the Northwest Sahara Aquifer System shared between Algeria and Libya.
9. Examples include the agreement on the Nahr Al-Kabir Al Janoubi, shared between Lebanon and Syria. Other mechanisms established between Arab countries involve the trilateral commission between Algeria, Libya, and Tunisia to share the North Western Sahara Aquifer System (NWSAS) and the Memorandum of Understanding (MoU) signed between Jordan and Saudi Arabia in relation to the Saq-Ram Aquifer System (West), also known as the Disi aquifer (Stephan, 2015).
10. These countries include, inter alia, Turkey, Israel, Eritrea, Ethiopia, Tanzania, Uganda, Rwanda, Burundi, the Democratic Republic of the Congo, Kenya, Guinea, Mali, Senegal, the Central African Republic, the Gambia and Chad (ESCWA, 2018).

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