

34/2019

25 April 2019

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Conflict and Cooperation at the Jordan
River basin system: A Geopolitical
Glance on the Jordanian Side

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Abstract:

The Jordan River Basin embodies a cross-border hydrological system whose riparian actors rarely interact multilaterally, whose historical record has prioritized unilateral action, and which have found some level of understanding in bilateral terms, depicting the thin line between interdependency and inflicting damage to the enemy in a conflict zone. This article's aim can be said to be twofold: on one hand, it will offer a picture of the Jordan River Basin's setting conceived as both a strategic and transborder system, with its prospects for mutual benefits lying a principle for cooperation. Cooperative frameworks do not undermine, however, the notion of which actor(s) possesses a status of superiority in the current context. On the other, the second part will pay due attention to the cooperation subsystem between Israel and Jordan, providing insights on how Jordan may improve its bargaining leverage without the collapse of the cooperation structures.

Keywords:

Jordan River Basin, bargaining power, hydrological conflict, strategic superiority, zone of possible agreement, environmental security, Middle East.

***NOTE:** The ideas contained in the Opinion Documents are the responsibility of their authors, without necessarily reflecting the thinking or the IEEE or the Ministry of Defense

Introduction

We can state firmly and just with prior brief consideration that the Jordan River Basin (JRB) embodies one of the most man-disputed, nature-sensitive and internationally commented on fresh-water hydrogeographical bodies across the Earth's surface. The collective imaginary founding and shaping its very geopolitical importance, sustained and reproduced upon a wide spectrum of material factors bringing to the forefront the often uneasy relationship among territorial power, socioeconomic development and environmental sustainability, does not restrain itself to the already complex multiplicity of actors drinking from its waters and inhabiting along its shores and catchment whereabouts, rather its management and heavy political consequences have usually developed into a suprarregional, even global concern.

The JRB has constituted the physical backbone of long-disappeared civilizations and the birthplace to the three monotheistic religions. It is also history what has constructed the intersubjective meaning of water in the Middle East, and particularly in the East Mediterranean¹, where the geopolitical juncture is persistently underpinned by scarcity.

The scope for the current study regarding conflict and cooperation on the JRB demands assessing the scenario as a modern phenomenon, drawn upon the territorial reconfigurations triggered by the Ottoman fall and the proclamation of the Jewish state, which was followed by a virtually constant tug-of-war in the basin, depicting the thin line between interdependency and inflicting damage to the enemy in a conflict zone. With the culmination of the peace process inaugurated in Madrid, all concerned actors acquired unprecedented international legal ground in regard to their water rights. After all, "the scarcity of water has often been a catalyst for the development of laws and borders"². Beyond that, political theorists have come to argue "although the importance of water

¹ JUST, Richard E. & NETANYAHU, Sinaia, (eds.), "Conflict and Cooperation in Transboundary Water Sources." Springer, New York, 1998.

² ROSENTHAL, Eliahu & SABEL, Robbie, "Water and Diplomacy in the Jordan River Basin", Israeli Journal of Foreign Affairs, 2009. 3: 97. pp. 95-115. Retrieved from: <https://doi.org/10.1080/23739770.2009.11446373>

might appear to generate conflict, it has in fact made cooperation more likely”³. This has become possible through a better understanding of the multidimensional nature of water sharing, together with the notion that cooperation through binding agreements in transnational, ecologically sensitive environments prevents from overexploitation and encourages sustainability. In parallel, short-term incentives tend to be a necessary factor too, together with mutual retaliatory actions that which make perpetuated cooperation advantageous⁴.

This article’s aim can be said to be twofold: on one hand, it will offer a picture of the Jordan River Basin’s setting conceived as both a strategic and transborder system, on the other, the second part will pay due attention to the cooperation subsystem between Israel and Jordan, providing insights on how Jordan may improve its bargaining leverage without the collapse of the cooperation structures.

Geographical positioning of the riparian actors in regard to the Jordan Basin

In a region where territory, identity and resources are collectively engineered as a permanent matter of survival, mapping the legitimate rights to a ‘piece of the pie’ constitutes an intensive geopolitical concern, because the options for policymaking and exercising power will hereafter be largely conditioned by them. Geography is never a natural phenomenon separated from ideology and politics. Rather, geography as a discourse is a form of power/knowledge itself”⁵.

³ DELLAPENNA, Joseph W., “Designing the Legal Structures of Water Management Needed to Fulfill the Israeli-Palestinian Declaration of Principles”, *The Palestinian Yearbook of International Law*, 1994: 100. pp. 63-103.

⁴ JUST, Richard E. & NETANYAHU, Sinaia, (eds.), “Conflict and Cooperation...” *loc.cit.*

⁵ TUATHAIL, Gerard & AGNEW, John, “Geopolitics and discourse: practical geopolitical reasoning in American foreign policy”, *Political Geography*, 1992. 11: 192. pp. 190-204.

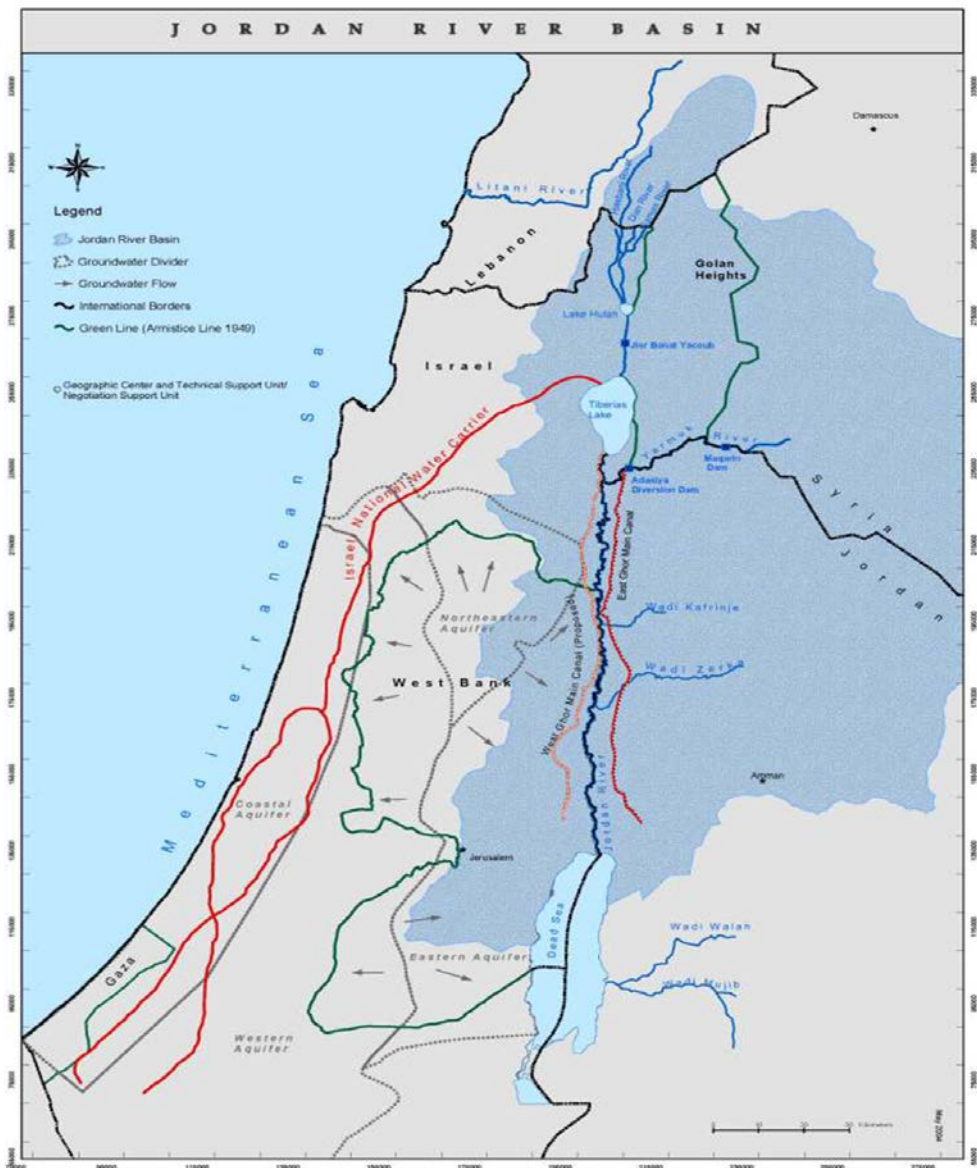


Figure 1. Map of the Jordan hydrogeographical basin. Source: EcoPeace Middle East, 2013.

It is generally agreed that the JRB water resources are critical for Israel, Jordan and the Palestinians, and to a lesser extent for Lebanon and Syria⁶, leading to the paradoxical situation in which the main water contributions prior 1967 would correspond to Lebanon

⁶ SABEL, Robbie, "The Jordan Basin: Evolution of the Rules". In J.W. Dellapenna & G. Joyeeta (eds.), "The Evolution of the Law and Politics of Water", Springer, New York, 2009: 263

and Syria, precisely the riparian actors with alternative, out-of-basin sources. Nevertheless, a similar opportunity for diversification is displayed by Israel through its cutting-edge desalination technology, or “the innovative treatment systems that recapture 86% of the water for irrigation”⁷. In 2016, 55% of Israeli domestic water came from desalination methods⁸. These key water sources have rendered the Jewish state potentially less reliant on the JRB, however, the usage of the basin waters remains at a disproportionately high rate and pace.

Regarding the geographical positioning of the riparian actors, it is imperative to take into account that divergent representations justify or denounce different realities. According to Aquastat⁹, the JRB’s area corresponds to each pertinent stakeholder: 37 out of 100 to Israel, 40 to the Hashemite Kingdom, 10 lies in Syrian territory, 9 in the West Bank and 4 in Lebanon. The programme categorizes as Israeli territory the acquisitions after 1967, something quite surprising if taking in consideration the U.N. still labels Netanyahu’s country as ‘occupying power’. Misrepresentation in the light of international law has become a dangerous, but usual practice. Messerschmid and Selby, strongly criticized UN-ESCWA’s representation of the JRB, stressing “serious technical errors and a systematic bias in favour of one riparian, Israel, and against the Jordan River’s four Arab riparians”¹⁰. While Israel’s area is exaggerated and its water usage softened, the Arab part is depicted as less attached to the basin but weighing a higher responsibility in its transformation and spoiling; in the end, an apparent hydro-hegemonic narrative aiming at naturalizing a *de facto* scenario.

Quba’a et al.¹¹, departing from the assumption in referring to the Golan Heights as part of Syrian territory and assessing the strategic importance of groundwaters’ extended

⁷JACOBSEN, Robwan, “Israel proves the Desalination Era is Here”. Scientific American, 2016.

⁸ *Idem*

⁹Aquastat, “Aquastat Survey 2008: Irrigation in the Middle East region in figures. Jordan River Basin.”, 2008. Retrieved from: http://www.fao.org/nr/water/aquastat/basins/jordan/jordan-CP_eng.pdf

¹⁰MESSERSCHMID, C. & SELBY, J., “Misrepresenting the Jordan River Basin”, Water Alternatives, 2015. 8: 258. pp. 258-279. Retrieved from:

https://www.researchgate.net/publication/282268943_Misrepresenting_the_Jordan_River_Basin

¹¹QUBA’A, Rola et al, “The role of groundwater...” *op.cit.*

area, reach to a partition that substantially downplays Israel's lawful share of the JRB.

Legal agreements and cooperation

Neither multilateral agreement, nor forum exists for the managerial task in the transboundary basin. Moreover, international water law concerning transnational drainage basins is virtually void, plus the few customary rules are scattered and vague. Efforts have been made to enact a common arrangement though, and their landmarks have acted as useful frameworks for following bilateral relations among the riparian entities. However, two risky facts arise from the absence of every incumbent party at the table in regard to monitoring, coordination and actual enforcement: the current bilateral settlements are heavily conditioned by the behaviour of the other actors (especially, by a free-riding Syria) and the relation of forces combined with elusive legal codification often leads to "open interpretation"¹², manipulation and misunderstanding.

Despite several colonial attempts in the past, it was not until the *Johnston Plan* in 1955, mediated by the U.S. Special Envoy, when specific water allocations, measured in MCM and not percentages –creating basis for future debate and raveling-, were proposed for the four bordering states. Under the plan, "approximately 60% of the water of the Jordan River system was to be allocated to Lebanon, Syria and Jordan, and the remaining forty per cent to Israel"¹³. After 1994, the Johnston Plan would become the pillar of the most successful regional cooperation for the time being, however, in a biased manner, since Israeli allocation was not just met but increased¹⁴.

Israel-Jordan Cooperation

Water is one of the few issues that have aligned Arab states and Israel in cooperation schemes. Jordan embodies the exemplary case. Its bargaining position as mediator in front of the Arab countries and fiduciary of the Palestinian people, effectively attracts

¹²Aquastat, "Aquastat Survey 2008: Irrigation in..." *op.cit.*

¹³ROSENTHAL, Eliahu & SABEL, Robbie, "Water and Diplomacy" *op.cit.*

¹⁴ALAMI, Sami, "Water and Strategy in..." *op.cit.*

Israel to cooperative practices. For Jordan, water is both the curse and catalyst in many aspects of foreign, economic and social policies, and a driving factor whether for civil content or upheaval. The World Bank's definition of water scarcity amounts less than 1.000m³ per person/year, but Jordan can provide less than 15% of that¹⁵.

According to Israeli negotiator Daniel Reisner, "water disputes can only be resolved by the specific determination of quantities and quality of water to be allocated and not by means of general concepts"¹⁶. The quantity/quality-centred approach was the logic followed for solving their differences, codified within the second annex of the 1994 Treaty of Peace¹⁷. Aiming at avoiding future disconformity by overlooking critical details, even specifications for the winter/summer periods were established.

Allocations were agreed regarding the Yarmouk and Jordan flows and Arava groundwater supplies, and Israel vowed to give access to 10 MCM of desalinated water¹⁸, resorting to the Johnston Plan as common basis for understanding. Since another 50 MCM would be needed in order to satisfy Jordan's water shortage, Israel agreed to search for cooperative ways to provide that quantity. In return, Israel would keep its existing uses –evidencing which actor approached from a privileged position- plus a reinforced access to groundwater allocations. Up to this day, Jordan is still not getting its specified volumes¹⁹. Some authors would argue that "the volume of water Jordan has access to is significantly lower than what was proposed by the Jonhston Plan"²⁰, and Jordan should have been given access "to the sea of Galilee and its groundwater"²¹. The Joint Water Committee, apart from conservation initiatives, has the key task of improving information exchange and trust building.

¹⁵The Economist, "Jordan's water crisis is made worse by a feud with Israel", 2017, Retrieved from: <https://www.economist.com/middle-east-and-africa/2017/12/02/jordans-water-crisis-is-made-worse-by-a-feud-with-israel>

¹⁶ROSENTHAL, Eliahu & SABEL, Robbie, "Water and Diplomacy in." *op.cit.*

¹⁷Jordan-Israel,"Treaty of Peace between the Hashemite Kingdom of Jordan and the State of Israel", Wadi 'Araba, 1994,

¹⁸ *Idem*

¹⁹ ROSENTHAL, Eliahu & SABEL, Robbie, "Water and Diplomacy in." *op.cit.*

²⁰ YASUDA, Yumiko et. al., "Transboundary Water Cooperation over the lower part of the Jordan River Basin", The Hague Institute for Global Justice, 2017.

²¹ *Idem*

Another project augured some relief from Jordan's water stress: the Red Sea-Dead Sea Conveyance Project. Its central objectives would be “to stabilise the Dead Sea's water level, desalinate water supply and generate energy for Jordan, Israel and the Palestinian Authority and build a symbol of peace and cooperation”²². Nevertheless, its benefits and viability are still in question and the project has not recovered its momentum since diplomatic relations between Israel and Jordan deteriorated after the 2017 incident at Israel's embassy in Amman.

As the previous example displays, the JRB cooperation system is not oblivious to other areas of cooperation and engagement.

Control over the resources and strategic superiority

The strategic burden derived from territorial coexistence at the basin is largely conditioned by, on one hand, the biophysical characteristics of the system, like high levels of salinity and chemicals or the winter-summer rainfall gap; and, on the other, the actors' dynamics and needs upon the basin reproducing its hydro-strategic value: the riparian's role in using all their available water resources²³, the divergent dependencies upon the basin, socioeconomic development policies tied to it, etc. All these variables provide for inferring which actor possesses the bigger leverage and control in the system.

The Upper JRB denotes better conditions in terms of quantity and quality. Only Syria, Israel and Lebanon, have access to these waters. Syrian water usage, mostly diverted from Yarmouk River flows, counts approximately 453 MCM per year²⁴, a figure largely exceeding Johnston Plans', whereas Israeli estimates, in spite of not being conclusive – due to secrecy concerning usage in the settlements-, are expected to accumulate around 723 MCM²⁵ annually just for the upper part of the river.

²² *Idem*

²³ AL WESHAH, Rawdan A., “A case study of a multilateral water negotiation: the Jordan River system”, Encyclopedia of Life Support System: Conflict Resolution, 2010.

²⁴ YASUDA, Yumiko et. al., “Transboundary Water Cooperation...” *op.cit.*

²⁵ *Idem.*

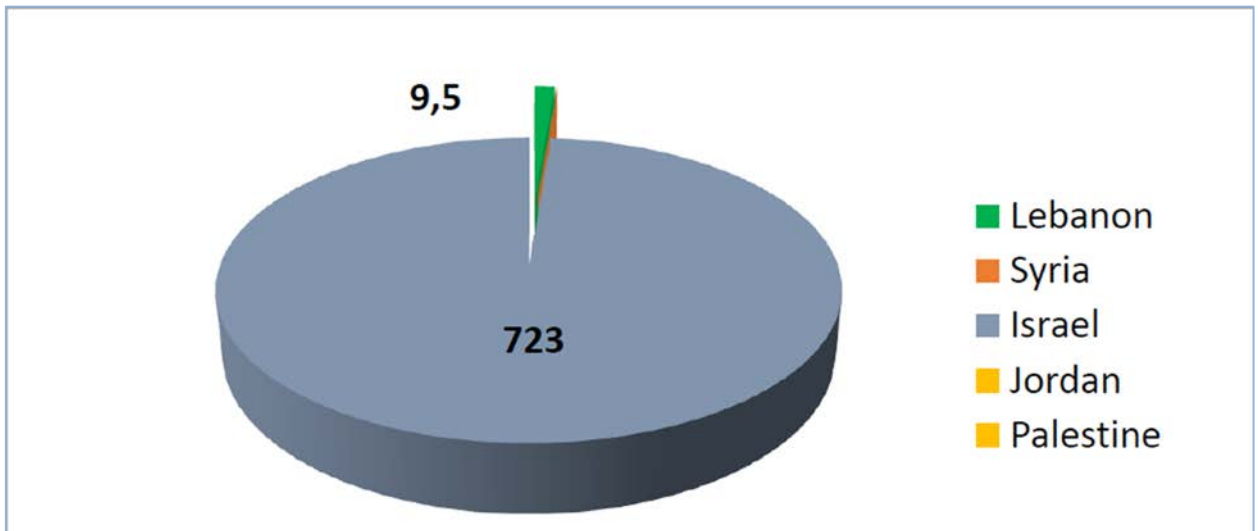


Figure 2. Riparian abstractions at Upper Jordan River Basin. Source: Messerschmid & Selby, 2015.

The disparity is wider if we consider the Lower JRB scenario, where water for Jordan and the Palestinians is less available and in worsening conditions, plus it receives the impact of the riparian actors' activities in the upper Jordan, turning huge quantities of water unusable. Furthermore, since 1967, Israeli presence on the western shore has translated into close monitoring and hydrological control.

What we may deem as the central vector of strategic superiority is found in water allocation partitions and actual (and potential) uses. An important set of indicators is the spectrum of legal safeguards ensuring utilization rates for Israel, the fact that “only Israel is undertaking large-scale out-of basin water transfers”²⁶, or that, paradoxically, its water consumption per capita is one of the highest at global scale, while Jordan ranks as “the fourth water poorest country in the world”²⁷. Jordan might be extracting as much as 300 MCM²⁸, whereas the sole Israeli allocation at the upper Jordan doubles that quantity, then

²⁶ MESSERSCHMID, C. & SELBY, J., “Misrepresenting the Jordan...” *op.cit.*

²⁷ DENNY, Elaine et. al., “Sustainable Water Strategies for Jordan”, University of Michigan, International Economic Development Program, 2008: 1.pp. 1-27. Retrieved from: <http://www.umich.edu/~ipolicy/Policy%20Papers/water.pdf>

²⁸ YASUDA, Yumiko et. al., “Transboundary Water Cooperation...” *op.cit.*

we would have to sum the usage from aquifers in Israel and the West Bank, and key surface waters like those from the Yarmouk River.

Jordan and Syria might have the largest parcels of catchment area or the largest number of inhabitants and precipitations within the basin. Also, and without undermining Israel's surface contribution, the gap narrows if groundwater flows are included. However, Israel represents the hegemony in the utilization at both levels.²⁹

Israel's superiority can also be observed in the socioeconomic development across the basin and technological progress as a strategic asset. There exists a critical improvement in regard to Israeli opportunities for diversification away from the JRB's hydrological resources, yet Israel persists as its main user. This behaviour falls within the national narrative of high-living standards/sacrifice exchange, thus living in a permanent state of threat is rewarded with superior wellbeing in comparison to the regional average. As Hillel Frisch commented, it is not in the interest of Israel to compromise the control of technological solutions for water supply and efficiency, and the reproduction of water use rates should be attained³⁰.

In contrast, the Jewish state can put into force a higher degree of leverage and pressure on the other riparian actors due to their respective dependencies upon the JRB system for such a vital commodity. By keeping in line dependency dynamics, Israel maintains the decisive role in setting the pace, scope and outcomes in the negotiations, even extending to problematic issues at other aspects within the bilateral relations. Another relevant instrument in the process of concealing and legitimizing power are the set of hegemonic hydropolitical narratives³¹, briefly reviewed above.

To sum up, the data from different sources and analytical inference hold the idea of Israel exercising the hydro-hegemony at the basin. Nevertheless, opportunities for adjusting the balance within the Jordan River Basin cooperation system without forcing its collapse do

²⁹ For access to thorough data on water allocation and territorial shares, visit: QUBA'A, Rola et al, "The role of groundwater..." *op.cit.*

³⁰ ALAMI, Sami, "Water and Strategy in." *op.cit.*

³¹ MESSERSCHMID, C. & SELBY, J., "Misrepresenting the Jordan..." *op.cit.*

exist, and even if neither of them can be put forward easily, Jordan might choose to deploy efforts leading to a greater leverage, perhaps more equitable matrix of relations there.

Structural analysis of the Jordan-Israel JRB cooperation system: Mic Mac tool.

Our interest lies on identifying the dynamics of direct influence and dependency among the principal variables within the Jordan-Israel JRB cooperation system, first of all, as a tool for sharper accuracy in describing the apparatus, and secondly, for assessing the vectors through which Jordan might improve its bargaining power.

DESCRIPCION	ABREVIATURA
Estatus hegemónico de Israel en la cuenca del Jordán	IsrHeg
Dependencia de Jordania de la JRB	JordDep
Influjo de refugiados en Jordania	InfluxRef
Condición de disponibilidad limitada de agua	LimWatAvai
Hidrología de la cuenca, particularmente lacontribución hídrica de cada actor ribereño	HydrBasin
Usos hídricos existentes y potenciales	ExPotUses
Fuentes alternativas de agua –exógenas a la cuenca-	Altsources
Deterioro ecológico, sobreexplotación y contaminación	EcoDeter
Derecho internacional del agua	IntWatLaw
Implementación de acuerdos bilaterales y planes conjuntos: generación de confianza, coordinación e intercambio de información	BilatAgr
Presencia regional decreciente de EE.UU.	U.S.Presen
Influencia rusa emergente/redefinida	RussInfl
Lazos estratégicos y tensiones Israel-Jordania fuera del marco de cooperación hídrica	IsrJorBond
Progreso e infraestructura tecnológica	TechProInf
Necesidades socioeconómicas respecto de la cuenca	SocEcoNeed
Iniciativas de conservación	ConsIniti
Significado del agua como asunto de seguridad nacional	MeaningSec
Relevancia cultural, simbólica y cultural de la cuenca	CultSign

Table 1. List of Variables. Source: Elaborated by the author.

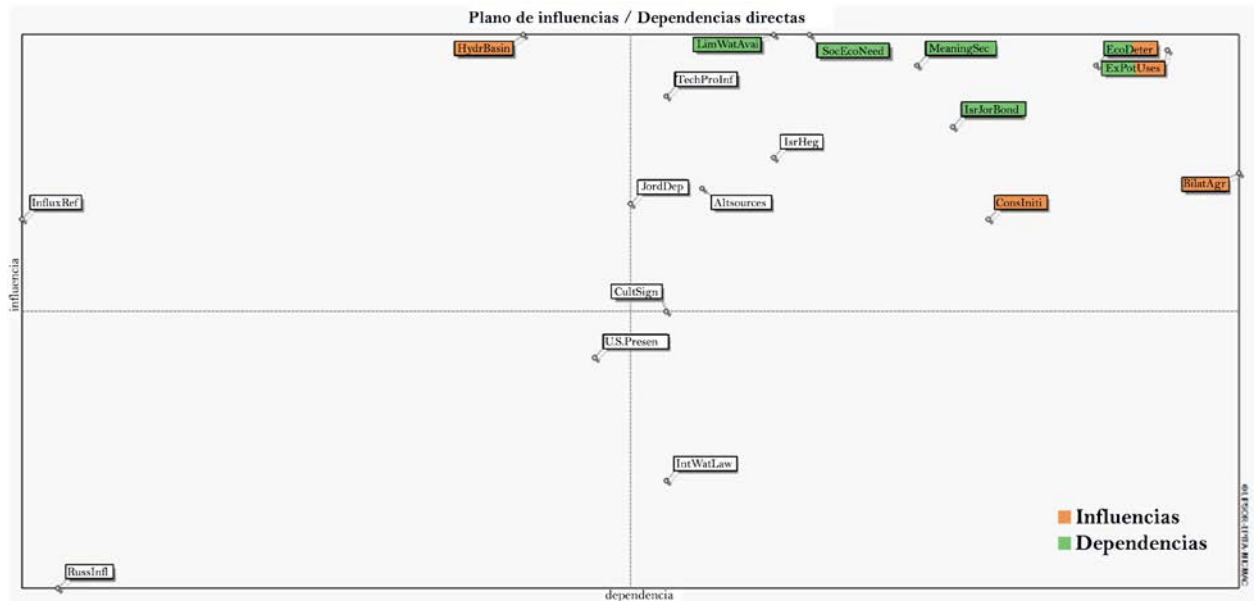


Figure 3. Map of Direct Influences/Dependencies. Source: Elaborated by the author,

-Higher level of dependency: 1) Bilateral agreements, structures and plans: trust building, coordination and information exchange; 2) Existing and potential uses; 3) Ecological deterioration and overexploitation; 4) Conservation initiatives; 5) Israel-Jordan strategic bonds and tensions outside the water cooperation framework.

-Higher level of influence: 1) Hidrology of the JRB; 2) Limited water availability; 3) Socioeconomic needs; 4) Ecological deterioration and overexploitation; 5) Existing and potential uses; 6) Water as national security concern.

Conclusions: Jordanian opportunities towards increased leverage

The institutionalization of a multilateral cooperation system for the JRB implies attracting Israel to a reshaped *zone of possible agreements* defined as “a set of possible agreements that are more satisfactory in terms of perceived interests than the non-cooperative alternative to agreement”³². An improved Jordanian stance within the

³²YASUDA, Yumiko et. al., “Transboundary Water Cooperation...” *op.cit.*

bilateral relations could accommodate steps towards a more equitable allocation and usage roadmap. How could that bargaining power be invigorated?

a) Israel-Jordan strategic bonds and tensions outside the water cooperation framework are highly dependent upon the system. In order to increase leverage, Jordanian policymakers could guarantee a system of trade-offs, implying that a more favourable position in water cooperation for Jordan turns into exogenous-to-the-system advantages for Israel, something feasible for Jordan in its role as mediator.

b) The meaning attributed to water as a national security concern is one of the underpinning notions of the current system. Making efforts towards changing the perception from a zero-sum to a mutual gains approach may favour a more peaceful and equitable JRB cooperation. Renewed attention must be given to the variables of 'limited water availability', 'socioeconomic needs' and 'ecological deterioration'. In addition, full observance and information exchange would reinforce trust, on the Arabs' part, and engage Israel permanently in sub regional politics, increasing prospects for a long-term sustainability. Active participation of economic stakeholders may favour the shift to the domain of mutual profits and efficiency.

c) Influx of refugees exerts certain degree of influence on the possible future scenarios, thus becoming a potential bargaining asset for Jordan in the cooperation with Israel who is not carrying the 'refugees' burden', what legitimizes Jordan's dependency on JRB waters in relation to not only Palestinians, but Iraqis and Syrians too. The state could persuade Israel to take into account the wide gap between demand and supply. Acting as mediator has been a continuous Jordanian strength, therefore, ensuring a Palestinian central authority with legitimacy and control over the West Bank –and Gaza- has to be a priority for Jordan in resuming water talks.

d) Jordan could introduce a reconfiguration of its foreign-policy strategy binding together water issues to a more comprehensive, diverse array of diplomatic efforts, which would require a series of changes: enhancing coordination, between the Ministry of Water and Irrigation and the Foreign Affairs Ministry; linking water objectives to the other Arab actors'; using its rooted partnership with the U.S. to foster its involvement, providing in

return diplomatic capital in dealing with affairs concerning Iran, Iraq, the Palestinian Authority or Syria.

e) Pointing at the opposite direction, with a foreseeable stronger short-term effect but also posing a more uncertain set of outcomes, Jordan could make moves for diversifying its financial creditors and economic partners. The purpose of this would be to gain some independence from Israel in domains outside the JRB system, because the Jewish counterpart accommodated U.S. financial assistance to Jordan in the first place. With Israel's consensus, Jordan might even assess the possibility of introducing Russia or China to the JRB dialogue, given the latter's' increasing penetration in the Jordanian economy.

f) Irreversible water stress in Jordan is counterproductive for Israel, because the former state might be forced to take unilateral decisions, or even opt out from cooperation. Jordan needs to show Israel that non-cooperation is a possibility, something contrary to Israeli interests as hegemon benefiting from long-term use of the JRB. The Jordanian state might use a variety of channels to demonstrate popular and governmental discontent with the current juncture, exercising pressure upon the Israeli foreign-policy narratives of 'ally' and 'good neighbours'. Domestic turmoil during the last months has driven Abdullah II to push in this direction, as he threatened in October 2018 to revoke the leasing of two bordering areas to Israel under the 1994 Peace Treaty.

g) The Hashemite Kingdom may take actions for diminishing Israeli vision of the basin as a foremost priority in terms of economic survival. In Israel, services, high-technology and housing sectors are consolidating at the expense of agriculture, reducing water-for-irrigation appeal, still very critical for Jordanian crops. Other way could be supporting diversification projects concerning desalination and recycling whose resulting benefits are to be perceived entirely in Israel, for example, through aid in storage needs. Simultaneously, the logic might equally turn the other way around. With Israeli assistance, Jordan could acquire technology, infrastructure and know-how for developing desalination. Joint projects, not limited to water but covering other mutual gains such as energy, could emerge as an alluring option.

h) Jordan –and the other Arab actors- may emphasize through rigorous material evidence their decisive contributions to the lifecycle and usage of the Jordan River Basin, while reshaping generalised assumptions on Israeli dependency.

i) In the light of the Mic Mac results, the regulatory variables of ‘Jordan’s dependency on the basin’, ‘alternative sources’, ‘cultural significance of the basin’ and ‘U.S. regional presence’ depict the necessary stopcocks for accomplishing the key variables: diminishing ‘ecological deterioration’, redefining ‘existing and potential uses’, deepening ‘bilateral agreements’ and improving ‘Israel-Jordan strategic bonds’, which ultimately will lead to a more sustainable and cooperative system.

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