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Transboundary Water Governance through the Lens of International Relations

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Abstract: This article discusses power and institutional theory with a (neo-) realist and institutionalist lenses regarding water governance. The main question is: how do power and institutions interact in the regulation of transboundary waters across many geographic scales? The sub-questions provide insights into the differing roles of realist and institutionalist perspectives in international relations (IR) and transboundary water governance, as well as the combined effects of power and institutions. This article discusses key approaches in IR (realism, neo-realism, institutionalism and neo-institutionalism). It then discusses concepts of hydro-hegemony, water governance and institutions. Lastly, institutions and power are demonstrated using a mixed methodology. By moulding relevant features of both perspectives into a middle ground, followed by a conclusion.

Keywords: Realism, Institutionalism, Transboundary Water Governance, Multilevel Governance, International Relations

Introduction

This article will discuss two of the significant and currently relevant international relations (IR) theories: realism and institutionalism. Because of the significant debate that these two theories lead on the interplay of institutions and power in transboundary river basins, they are particularly important for this article. These two theories also have a notable impact on politics and literature regarding cooperative management, environmental security, and conflict.

According to the Water Convention (Art. 1(1)), Transboundary waters are any surface or groundwaters that indicate, transcend state lines or are situated there; anywhere transboundary waters empty into the ocean, between locations on the low-water line of their banks, these transboundary streams terminate in a straight line that crosses each other's mouths."[1] A basin approach to the use and preservation of transboundary waters is incorporated into the Convention.

Influential hydro political researchers and authors such as Allan (2001) and Mollinga (2001) have gained momentum in the past by emphasising the role of politics in the water sector. They strongly implied

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that water is not a part of politics, but water *is* politics. Donahue (1997) explained that water has different meanings for different nations and is understood as a tool for economic development, as a political instrument, and as a cultural norm. As much as IR policies have the potential to be implemented vastly in different aspects beyond social, geographical, and legal aspects, they have failed to incorporate insights outside of their circle. Specifically, the impact on transboundary water sources is quite vague. Lowi's (1993) work on *water and power* is still considered an exemplary work from a realist perspective, but apart from that, there are limited significant studies integrating IR frameworks into transboundary water issues. The critical ones are even more seldom articulated as those in positions of power rarely get into discussions of power since it forces them to justify their position (Guzzini, 2005), and the dependant ones avoid biting the hand that feeds.

Much of the literature on the issue of integration of IR policies in transboundary water governance is backed up by an implicit international relations framework. Trottier (1999), Selby (2003) and Zeitoun (2008) explored different angles, introducing IR frameworks for transboundary water resources shared by Israel and Palestine, giving an insight into the accommodating and exploitative relations over water governance. Transboundary water diplomacy is rooted in international relations; any approach to the critique of IR-framed literature on water governance will identify the gaps and deficiencies and bring forth a more holistic and grounded analysis of the politics of shared water sources.

Analytical Framework

The proposed analytical framework is based on the concepts of power, institutions, and multi-level governance for analysing transboundary water cooperation (see Figure 1). Young et al. (2005) served as the framework's inspiration. It examines the non-institutional drivers (that is, anthropogenic and natural), the problem's context, the institutions addressing it, the instruments used by those institutions, the actors targeted by those instruments, and the efficiency of those tools in modifying the drivers' behaviour in light of the implications for particular objectives. A redesign proposal is presented based on a contextual effectiveness analysis of the instruments. By looking at the institutions, instruments, and drivers at different levels of governance, this framework has been adjusted to support multi-level governance. The effects are evaluated in light of international relations objectives. Analysis of power considers contextual factors as well as how they affect the creation of regulations.

Institutions are defined in this research as policies, methods for making decisions, norms (or principles), and policies that outline social activities. Institutions provide principles, which are formal and informal legal standards that apply universally to all comparable circumstances (Alexy, 2000). Norms are described as the "standard of appropriate behaviour for actors with a given identity" by Finnemore and Sikkink (1998: 891). Therefore, principles serve as the broad benchmark by which behaviour is evaluated. At the international level, principles can signify various things. These include (a) serving as the foundation of international law, (b) an important norm of international law that must be taken into account in state-to-state relations, and (c) "a measure of the changing rules of international law." (De Sadeleer, P 237 2002).

The state and other authorities employ instruments to ensure survival and results or to avert social transformation (Vedung and Van der Doelen 1998; Majoor and Schwartz 2015). Political sociologists emphasise that, despite the literature using functionalist and instrumentalist theories, seeing Instruments are sensible and not just technical; they are also pragmatic, technical, neutral, and rational, reveal notions

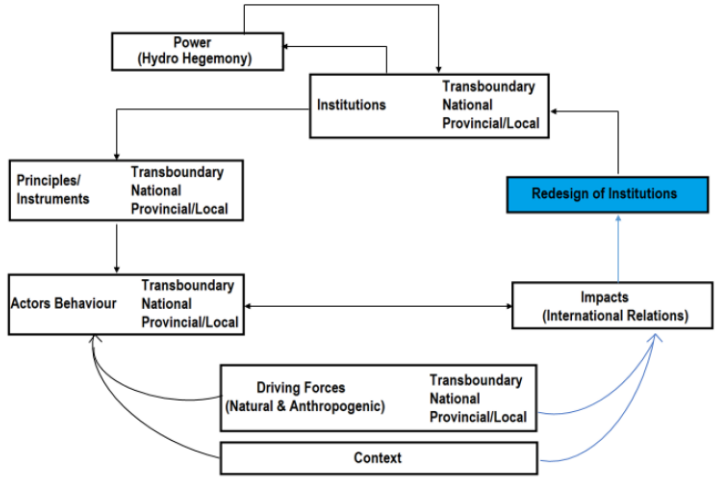
of social control, the balance of power, and the interactions between citizens and the government (Kassim and Le Galès 2010; Majoor and Schwartz 2015). Table 2.2 demonstrates that instruments, which include the guidelines, precepts, or strategies intended to influence behavioural change, are instruments employed in certain laws, regulations, or customs regulating a transboundary river. According to Rivera (2004), instruments can be classed according to the following factors: (a) the instruments or resources they utilise, (b) the instruments' utilisation, (c) the way they are applied, or (d) their impact.

While it can be challenging to combine hydro hegemony's (HH) various theoretical approaches of institutionalism and water governance into a single conceptual framework, these approaches frequently complement one another and can be applied to explain many facets of the main research issue and its sub-questions that form the basis of this article. When it comes to transboundary freshwater resources, neither power nor institutions can take precedence over the other because of how intricately they are related. Power does affect transboundary outcomes in asymmetric relationships among riparians, but power politics in transboundary freshwater resources can also be limited by formal and informal institutions.

In addition, there may be (a) unresolved historical disputes unrelated to water (such as boundary disputes) and (b) a dearth of knowledge in society and science. (e.g. economic value of ecosystem services provided by water) that could impede the water sector's efforts to improve and develop its institutions. Therefore, it becomes imperative to assess the role that power plays in including or excluding actors and issues, as well as how to improve (redesign) currently in-place institutions by first resolving unsolved historical concerns, followed by the provision of further scientific and social data that may alter riparian States' perceptions in water negotiations.

Figure 1

Schematic of conceptual framework



International Relations and Water Governance

Approaches to Transboundary Governance: Realist and Neo-realist

According to the theory of realism, national interests are the primary concern of all sovereign states (Keithly 2013; Meagher 2017). However, certain states might prioritise acquiring additional land. Or resources as their primary goal (Mearsheimer 2007), while others may want to focus on the expansion of

their own economic and political systems to different regions (Meagher 2017), and certain states could simply want to be left alone (Mearsheimer 2007). Survival comes first for realists, achieved through maximisation of power (Sheldon, 2003). To protect their interests, carry out agreements with other states, and uphold a favourable domestic and global order, nation-states must survive by relying only on their own assets. (Goddard and Nexon 2015). Pease (2012) outlines the four primary tenets of realism: Initially, the political state is the most powerful actor in the international political system to compete with other states (Mearsheimer 2001); Second, there is no universal authority that can impose regulations on the nations. Therefore, the administrative system at the international level is anarchic. (Lechner 2017; Ozkan and Cetin 2016); Third, logical participants in the international political system aim to further their personal agendas (Mearsheimer 2009); Fourth, nations strive for dominance (Antunes and Camisão 2017).

In the context of this article, the neo-realist theory is the most pertinent. Neo-realism is characterised by the dispersal of competencies and its organising concept, "anarchy." (Gorissen 2016; Humphreys 2007; Waltz 2010). Under this arrangement, all sovereign states are formally equal, and there is no recognised central authority due to the dispersed anarchic organisation of the international structure. (Powell 1994; Andreatta and Koenig-Archibugi 2010). States that act in self-interest and to promote their own goals also do not put the interests of other states below their own (Mearsheimer 2014). States' conduct is mostly determined by the dynamic force of survival, which also leads them to develop greater offensive capabilities in an effort to increase their relative power (Ngan, 2016; Toft, 2005a). States must safeguard themselves against relative power losses since there is a lack of trust among them due to the fact that they can never be certain of what other states' futures will hold. This "security dilemma" is an outcome of a situational lack of trust with uncertain outcomes (Mearsheimer 2014). The desire to enhance its relative power and the comparative capability of each state are mutually incompatible, resulting in the power dynamics that mould international relations (Toft 2005b).

The Hegemonic Stability Theory (HST), which is another theory that is relevant to this article, asserts that there is greater stability in the global system when the dominant (or hegemon) world power is a single country (Gilpin & Palan 1987; Goldstein 2005: 81-82). A hegemon leverages its 'preponderance of power' when it uses force, persuasion, or diplomacy to exercise leadership (Goldstein 2005: 81). The underlying idea of HST is that the hegemons' creation and enforcement of the system's regulations is what gives the global system its strength in terms of politics, international law (Liu and Ming-Te 2011; Silvia and Stanaitis 2013). Some characteristics are necessary for a nation to become a hegemon. (Adams-Jack 2015). To create new international laws and organisations or improve the application of already-existing rules and policies, it must first establish political stability, military might, economic clout, and strong national authority (Toft 2005a); Second, a developing economy (Silvia and Stanaitis 2013); third, an advantageous location, cutting-edge technology, superior resources, and other elements (Yilmaz 2010; Liu and Ming-Te 2011).

Hydro Hegemony (HH)

HH scholars have their roots in legal sovereignty theory and draw from theories of regimes (Keohane 1982), knowledge and discourse (Hajer 1995), water conflict (e.g., Wolf 2004), and water conflict intensity (e.g. Yoffe, Wolf, and Giordano 2003); realist/neo-realist accounts of power (e.g., Mearsheimer 2001; Lukes and Haglund 2005, see 2.1.2) and hegemony (e.g., Gilpin 2005; Lustick 2002). Scholars (Zeitoun & Warner

2006; Zeitoun & Allan 2008; Woodhouse & Zeitoun 2008; Daoudy 2009) investigations have shown that different kinds of power, including treaties, coercion (like pressure), manipulation (like the threat of military action), and perception control (like knowledge building), are frequently employed in water-based relations. Riparian states are able to influence one another by using these types of authority in different combinations. This allows them to control the flow of the shared water resources.

Strong riparian governments can maximise the benefits from shared rivers, according to HH experts; yet, in such a case that the powerful riparians persuade their co-riparians to make choices based on their personal preferences or intend to control the flow of water, distinct water results could occur (Zeitoun and Warner 2006: 439). According to Woodhouse and Zeitoun (2008), these outcomes can be: (i) benign (when states cooperate in water-stress situations, for example); (ii) neutral restrictive (when human rights are violated); (iii) repressive and obstructive (when states interfere to distribute water in a way that suits them); and (iv) contested control (when changing conditions pertaining to water could lead to conflict since there is no consensus). When HH is "negative and dominative," the hegemon aims to preserve systemic inequality and power imbalances. (Zeitoun and Warner 2006 : 439).

The interplay between riparians and shared water resources is known as hydro-interactions. and is an essential component of hydro hegemony theory. These exchanges can be cooperative or antagonistic, with varying intensities in between (see (Furlong 2006; Zeitoun and Mirumachi 2008; Zeitoun and Warner 2006); unequal power dynamics (one riparian state is strong and the other weak) (Zeitoun and Warner 2006; Warner & Zeitoun 2008); the potential for exploitation (resource capture methods of a powerful country to alter water quality or quantity by unilaterally erecting dams and reservoirs over the shared water resources) in the geographical location of riparian states a transboundary river basin (Zeitoun & Warner 2006); (Allan 2003; Warner 2006). The quantity, character, and quality of relationships between riparian states are significantly influenced by the physical topography of a river. In transboundary river basins, the riparian state's geographic location is crucial for both setting foreign policy and influencing state-to-state negotiations. Additionally, it affects how similar and different their interests and abilities are from one another (Dolatyar & Grey, 2000). Various HH components have an impact on various scenarios that arise because of strategic water positions in a contrasting way. The tabular form of this information can be viewed in Table 1.

Table 1

Influence of geographic power on material, bargaining and ideational power

Elements of Political Power	Elements of Geographic Power				
	Type	**Elements**	**Upstream Riparian (UR) Position**	**Downstream Riparian (DR) Position**	**River length & drainage area**
	Material	**Economy**	UR can potentially divert river waters to enhance trade and aid (Kehl 2017) UR is more likely to attract (more) foreign direct	DR has access to fertile flood plains, Agricultural production/trade dependence (Kehl 2017) DR may control the port, hence trade (Kehl 2017)	Having a longer river length and higher drainage area can increase water-related power (Arfanuzzaman and

			investment (Warner et al. 2014) UR can potentially prevent/increase pollution (Arfanuzzaman and Syed 2018)		Syed 2018; Kehl 2017)
		Military	Insignificant, no causal connection *	Insignificant, no causal connection	Insignificant, no causal connection
		Population	Insignificant, no causal connection	Insignificant, no causal connection	Insignificant, no causal connection
		Technology	Insignificant, no causal connection	Insignificant, no causal connection	Insignificant, no causal connection
		Pol. Stability	Insignificant, no causal connection	Insignificant, no causal connection	Insignificant, no causal connection
Elements of Political Power	**Bargaining**	**Strategic relations with powerful states**	UR has a better negotiating position as it can divert the water (Brochmann and Hensel 2011; Kehl 2017; Song and Whittington 2004). UR could potentially coerce DR (Menga and Mirumachi 2016)	DR has weak negotiation power in non-navigable rivers (Brochmann and Hensel 2011; Dinar et al. 2013; LeMarquand 1977)	Insignificant, no causal connection
	Ideational	***Power of ideas***	UR could use water/climate information to shape ideas and norms (Petersen-Perlman and Fischhendler 2018)	DR could attract support from powerful international actors, including researchers (Abdolvand et al. 2015; Eynon 2016; Hensengerth et al. 2012)	Insignificant, no causal connection

Transboundary Governance: Institutionalist and Neo-institutionalist Perspectives

The neoliberal institutionalist theory holds that while nations operate in their own best interests, they also value collaboration. According to Keohane, governments recognise that there may be advantages to collaboration even though working together is likely to cause conflict because it is a difficult undertaking (Keohane 1988). According to Snidal (1991), when the total benefits of collaboration greatly exceed the proportional gains, then cooperation is likely to have little effect (Snidal 1991 quoted in Keohane and Martin 1995). Establishments provide a means of coordination that enables states to reap the advantages of possible collaboration. The possibility of more group results is increased by this "built-in focus" (Keohane and Martin 1995: 45). According to institutionalists, states cooperate in order to maximise their absolute profits, disregarding the relative gains of other states (Rees 2010). This approach holds that international power arrangements and the negotiations that occur within them can be mediated by institutions, norms, and regimes, all of which can contribute to the establishment of peace and cooperation. (Jägerskog 2001 cited in Rees 2010: 12).

According to some previous theories, institutions have the power to influence people in two different ways: either they can motivate people to act out of obligation (normative institutions), or they can motivate

them to enhance benefits (regulatory institutions, also known as rational choice institutionalism) (Valli 2015). In general, historical institutionalism (Capoccia, 2016; Steinmo, 2008), neo-institutionalism (Ball & Craig, 2010), and contemporary transaction cost theories of institutions (Nolan and Trew, 2015; North, 1990) are included in the empirical literature on institutions.

Role of Institutions in Water Governance

Scholarship on water governance and institutions frequently emphasises both what is presently occurring and what needs to happen. These include talks about the previously described role of power. Using the most recent scientific research, water governance researchers assert that institutions are formal and informal cooperative processes on water that strive for true cooperation, lowering transaction costs and producing positive-sum interactions (Lopes 2012).

Scholars studying water governance advocate for addressing all forms of water, including subsurface, surface, and recovered or recycled sources, as well as all applications and consumers of water (Hayat and Gupta 2016). In order to develop, allocate, and use water resources, this article examines both individual and group behaviours as well as decision-making (Rutten and Mwangi 2014). The relationship between water administration, water policy, and water legislation might be thought of as water governance (Saleth and Dinar 2000), in addition to concerning the sociological and anthropological aspects of water (Zwarteveen and Boelens 2014) since regulations are formal in terms of their legal framework, administrative structure, and policy environment (Salman and Bradlow 2006). Both official and informal viewpoints are considered in water governance (Sehring 2009). These three formal aspects of water institutions are influenced by a multitude of factors (Saleth and Dinar, 2003). Logically, these elements can be grouped into two categories: exogenous elements (such as natural disasters like floods and droughts, international commitments, shifting social values, political reforms, technological advancements, population growth, and economic development) and endogenous elements (such as water conflicts, water inefficiency, deterioration of water infrastructure, and water scarcity) that are contained within the water sector (Saleth and Dinar 2004b; Hashemi et al. 2015). It is challenging to distinguish between the internal and external components' separate functions or to generalise the direction of their effects because both are inextricably linked and have varying comparative impacts depending on the circumstance (Saleth and Dinar 2000 2004a).

Around 3000 freshwater treaties were drafted between AD 805 and 1984, according to the Food and Agricultural Organisation (FAO) of the United Nations (Hamner and Wolf 1998). The rise of the private sector and the supremacy of governmental regulation define the fourth phase. Large-scale irrigation and hydropower projects were planned and implemented during this time as instruments of regional politics for the economic development of less developed nations (Mosello 2015). Inequalities between the people who incur the costs and those who benefit emerged from these governing paradigms. These disparities arise when the government fails to adequately enforce current legislation aimed at safeguarding the populace and natural resources (Ciervo 2009; Mosello 2015). The state implemented numerous regulations for water governance during this time. These were frequently influenced by academic publications, including those published by the Institute of International Law (IIL). In 1911, the IIL suggested creating joint water commissioners through the Madrid Declaration in order to prevent

unilaterally altering basins and to prevent changes to transboundary rivers. The Helsinki Rules of 1966, which established two crucial water governance principles regarding the duty to prevent "significant harm" and the "equitable utilisation" of water resources among co-riparians of a transboundary river basin, were also developed as a result of the recommendation in the Madrid Declaration (Caponera 1985).

An Analysis of the Interrelated Role of Power and Institutions

The Interrelated Role of Power and Institutions

As was previously said, "Neo-Institutionalism (NI)" emerged as a result of the influence of institutions on political results and human conduct. (Rauterford, 1995; Crawford and Ostrom, 1995). The foundation of NI was "old or Historical-Institutionalism (HI)" In Peters (2000). Three distinguishing features of HI are outlined by Hall and Taylor (1996: 940): (1) it highlights the power imbalances connected to the formation and functioning of institutions; (2) it incorporates institutional analysis for political outcomes along with the contribution of other factors; and (3) it adopts an institutional dynamics perspective that emphasises path dependence and unintended consequences. This, however, may be interpreted as contradicting the claims of those who contend that environmental regulations expose the preferences of individuals in positions of authority during the establishment of the regime (Dimitrov 2003). In response, Young (2004: p. 215) contends that knowledge plays a crucial role in the development of institutions since even "powerful actors are limited by their understanding of the institutional options available to them."

Williamson (2000) divides institutions into four categories and makes the case that unofficial rules can offer the context in which formal institutions are based. First, there are "the high-level formal rules," such as property rights, laws, and constitutions; second, there are informal institutions, or "institutions of embeddedness"; third, there are "the institutions of governance," which oversee daily operations to cut down on transaction costs; and fourth, there are "the prices and quantities" specified in various agreements. According to Bandaragoda (2000), a number of water-related regulations are intended to restrain socially unacceptable behaviour in the use and distribution of water. The institutional interactions that create incentives and limit human behaviour play a major role in an individual's ability to achieve the desired outcome (Alaerts 1997; Barrett et al. 2005).

To improve or modify hydro-institutional arrangements, a number of institutions need to be looked at. The guidelines for diverting water from lakes, rivers, streams, and even groundwater come first. Secondly, the regulations or guidelines that provide the parameters for distributing and redistributing water among various users (Easter 2004: p. 1):1). Laws governing rights to exploit water resources constitute the third category of institutions (Agyenim 2011). Institutions, then, can be thought of as both independent and dependent variables since individual actors' strategies both influence and are influenced by them. Institutions adapt to changing preferences in order to maintain a balance of power.

Conclusions

It is beneficial to examine freshwater governance and institutions through a lens in order to get insight into the causes of freshwater disputes, their severity, and inadequate governance. In a similar vein, the idea of hydro hegemony clarifies how state authority shares transboundary water resources with the countries that border it. Power can shape the agenda or preferences of various actors involved in the political/negotiation process by including or excluding relevant actors related to water and non-water

issues, including or excluding these actors, and when there is power asymmetry between actors with respect to (i) geographic, (ii) material, (iii) bargaining, and (iv) ideational power. These are but a few instances of how power can affect the institutions of multilevel transboundary water governance. States that build institutions as a result of obvious power imbalances do so in a way that is unstable, unsustainable, and inefficient. On the other hand, institutionalist ideas contend that norms that can serve as a mediator between the global system's power structures can nevertheless lead to collaboration and, eventually, peace. Even in anarchy, it encourages cooperation on concerns like collective security, human rights, and trade. Such collaboration frequently occurs when the power constellations of various problems diverge.

Various theoretical perspectives on cooperation and conflict in transboundary water, such as hydro hegemony (HH), water governance, and institutionalism, are challenging to incorporate into a single explanatory framework. However, these approaches complement one another and can be used to describe different aspects of the research question and sub-questions that form the basis of this article. When unequal power dynamics exist among riparians, power influences the results of transboundary freshwater resources; nevertheless, the influence of power politics is constrained by formal and informal institutions. In actuality, the complex interplay of power and institutions is actually a hybrid approach. In addition, the water sector may face obstacles to institution development and strengthening due to (a) unresolved historical non-water related concerns (such as boundary disputes) and (b) a lack of scientific and societal information. In order to improve current institutions, it is necessary to assess the role that power plays in including or excluding actors and issues. This can be achieved by addressing outstanding historical issues first, followed by the provision of further scientific and sociological facts that could influence riparian States' perspectives during water talks.

References

Adams-Jack, U. (2015). *Rethinking the South African Crisis. Nationalism, Populism, Hegemony*. Taylor & Francis.

Agyenim, J. B. (2011). Investigating Institutional Arrangements for Integrated Water Resource Management in Developing Countries: The Case of White Volta Basin, Ghana. [PhD-Thesis - Research and graduation internal, Vrije Universiteit Amsterdam].

Alexy, R. (2000). On the structure of legal principles. *Ratio Juris*, *13*(3), 294-304. https://doi.org/10.1111/1467-9337.00157

Allan, J. (2003). Virtual water - the water, food, and trade nexus. Useful concept or misleading metaphor? *Water International*, *28*(1), 106-113. https://doi.org/10.1080/02508060.2003.9724812

Andreatta, F., & Koenig-Archibugi, M. (2010). Which synthesis? Strategies of theoretical integration and the neorealist-neoliberal debate. *International Political Science Review*, *31*(2), 207-227. https://doi.org/10.1177/0192512110364258

Antunes, S., & Camisão, I. (2017). *Realism*. E-International Relations Publishing.

Bandaragoda, D. J. (2000). *A framework for institutional analysis for water resources management in a river basin context* (Vol. 5). IWMI.

Barrett, C. B., Lee, D. R., & McPeak, J. G. (2005). Institutional arrangements for rural poverty reduction and resource conservation. *World Development*, *33*(2), 193-197. https://doi.org/10.1016/j.worlddev.2004.07.008

Caponera, D. A. (2019). Patterns of cooperation in international water law: Principles and institutions. *Transboundary Resources Law*, 1-25. https://doi.org/10.4324/9780429269479-1

Ciervo, M. (2009). *Geopolitica dell'Acqua.* (Vol. 370). Carocci.

De Sadeleer, N. (2002). *Environmental principles: From political slogans to legal rules*. Oxford University Press on Demand.

Dolatyar, M., & Gray, T. S. (2000). The politics of water scarcity in the Middle East. *Environmental Politics*, *9*(3), 65-88. https://doi.org/10.1080/09644010008414538

Easter, K. W. (2004). Introduction to the special section on institutional arrangements and the effects on water resources. *Water Resources Research*, *40*(12). https://doi.org/10.1029/2004wr003653

Finnemore, M., & Sikkink, K. (1998). International norm dynamics and political change. *International Organization*, *52*(4), 887-917. https://doi.org/10.1162/002081898550789

Furlong, K. (2006). Hidden theories, troubled waters: International relations, the 'territorial trap', and the southern African development community's transboundary waters. *Political Geography*, *25*(4), 438-458. https://doi.org/10.1016/j.polgeo.2005.12.008

Gilpin, R. (2005). War is too important to be left to ideological amateurs. *International Relations*, *19*(1), 5-18. https://doi.org/10.1177/0047117805050059

Gilpin, R., & Palan, R. (1987). *International Political Economy*. Princeton University Press, Princeton.

Goddard, S. E., & Nexon, D. H. (2016). The dynamics of global power politics: A framework for analysis. *Journal of Global Security Studies*, *1*(1), 4-18. https://doi.org/10.1093/jogss/ogv007

Goldstein, A. (2005). *Rising to the challenge: China's grand strategy and international security*. Stanford University Press.

Hayat, S., & Gupta, J. (2016). Kinds of freshwater and their relation to ecosystem services and human well-being. *Water Policy*, *18*(5), 1229-1246. https://doi.org/10.2166/wp.2016.182

Humphreys, A. R. C. (2007). *Kenneth Waltz and the limits of explanatory theory in international relations*. University of Oxford.

Jägerskog, A. (2003). The power of the "sanctioned discourse" is a crucial factor in determining water policy. *Water Science and Technology*, *47*(6), 161-166. https://doi.org/10.2166/wst.2003.0385

Kassim, H., & Le Galès, P. (2010). Exploring governance in a multi-level polity: A policy instruments approach. *West European Politics*, *33*(1), 1-21. https://doi.org/10.1080/01402380903354031

Keithly, D. M. (2013). *The USA and The World 2013*. Rowman & Littlefield.

Keohane, R. O. (1982). The demand for international regimes. *International Organization*, *36*(2), 325-355. https://doi.org/10.1017/s002081830001897x

Lechner, S. (2017). Why anarchy still matters for international relations: On theories and things. *Journal of International Political Theory*, *13*(3), 341-359. https://doi.org/10.1177/1755088217713764

Liu, T. T.-T., & Ming-Te, H. (2011). Hegemonic Stability and Northeast Asia: What Hegemon? What Stability? *Journal of Alternative Perspectives in the Social Sciences*, *3*(2), 404–418.

Lopes, P. D. (2012). Governing iberian rivers: From bilateral management to common basin governance? *International Environmental Agreements: Politics, Law and Economics*, *12*(3), 251-268. https://doi.org/10.1007/s10784-012-9175-0

Lukes, S., & Haglund, L. (2005). Power and luck. *European Journal of Sociology*, *46*(1), 45-66. https://doi.org/10.1017/s0003975605000020

Lustick, I. S. (2002). *Hegemony and the riddle of nationalism: The dialectics of nationalism and religion in the Middle East*.

Majoor, S., & Schwartz, K. (2015). Instruments of urban governance. In *Geographies of Urban Governance* (pp. 109–126). Springer.

Meagher, T. M. (2017). Jefferson, Madison, Gallatin and the Resourcing of the War of 1812. In *Financing Armed Conflict, Volume 1* (pp. 105–184). Springer.

Mearsheimer, J. (2014). Anarchy and the Struggle for Power. *The Realism Reader*, *179*.

Mearsheimer, J. J. (2001). *The tragedy of great power politics*. WW Norton & Company.

Mearsheimer, J. J. (2007). *Structural realism* (Vol. 83). Oxford: Oxford University Press.

Mosello, B. (2015). *How to Deal with Climate Change?* Springer.

Ngan, T. T. T. (2016). Neo-realism and the Balance of Power in Southeast Asia. *Paper Dipresentasikan Untuk Lokakarya The Central and East European International Studies Association–Internastional Studies Association (CEEISA-ISA)*.

Nolan, C., & Trew, A. (2015). Transaction costs and institutions: Investments in exchange. *The B.E. Journal of Theoretical Economics*, *15*(2). https://doi.org/10.1515/bejte-2013-0090

North, D. C. (1990). A transaction cost theory of politics. *Journal of Theoretical Politics*, *2*(4), 355-367. https://doi.org/10.1177/0951692890002004001

Ozkan, E., & Cetin, H. C. (2016). The realist and liberal positions on the role of international organisations in maintaining world order. *European Scientific Journal, ESJ*, *12*(17), 85. https://doi.org/10.19044/esj.2016.v12n17p85

Pease, K.-K. S. (2012). *International organisations:[perspective on governance in the twenty-first century][eng]*. Boston, Mass.: Longman.

Powell, R. (1994). Anarchy in international relations theory: the neorealist-neoliberal debate. *International Organization*, *48*(2), 313–344. https://doi.org/10.1017/s0020818300028204

Rivera, J. (2004). Institutional pressures and voluntary environmental behavior in developing countries: Evidence from the Costa Rican hotel industry. *Society & Natural Resources*, *17*(9), 779-797. https://doi.org/10.1080/08941920490493783

Saleth, R. (2000). Institutional changes in global water sector: Trends, patterns, and implications. *Water Policy*, *2*(3), 175-199. https://doi.org/10.1016/s1366-7017(00)00007-6

Saleth, R. M., & Dinar, A. (2003). Water institutions and sector performance: A quantitative analysis with cross-country data. *World Bank, Washington, DC*.

Salman, S. M., & Bradlow, D. D. (2006). *Regulatory frameworks for water resources management: A comparative study*. The World Bank.

Sehring, J. (2009). Path Dependencies and Institutional Bricolage in Post-Soviet Water Governance. *Water Alternatives*, *2*(1).

Sheldon, G. W. (2003). *The history of political theory: Ancient Greece to modern America* (Vol. 21). Peter Lang.

Silvia, S. J., & Stanaitis, M. (2013). *Is Economic Hegemony Necessary for Maintaining Open Trade? An Empirical Challenge to the Hegemonic Stability Theory*.

Snidal, D. (1991). Relative gains and the pattern of international cooperation. *American Political Science Review*, *85*(3), 701-726. https://doi.org/10.2307/1963847

Steinmo, S. (2008). Historical institutionalism. *Approaches and Methodologies in the Social Sciences*, 118-138. https://doi.org/10.1017/cbo9780511801938.008

Toft, P. (2005). John J. Mearsheimer: An offensive realist between geopolitics and power. *Journal of International Relations and Development*, *8*(4), 381-408. https://doi.org/10.1057/palgrave.jird.1800065

Vedung, E., & Van der Doelen, F. C. (1998). *The sermon: Information programs in the public policy process: Choice, effects and evaluation*.

Waltz, K. N. (2010). *Theory of international politics*. Waveland Press.

Warner, J. F. (2006). More sustainable participation? multi-stakeholder platforms for integrated catchment management. *International Journal of Water Resources Development*, *22*(1), 15-35. https://doi.org/10.1080/07900620500404992

Wolf, A. T. (2004). *Regional water cooperation as confidence building: Water management as a strategy for peace*. Citeseer.

Woodhouse, M., & Zeitoun, M. (2008). Hydro-hegemony and international water law: Grappling with the gaps of power and law. *Water Policy*, *10*(S2), 103-119. https://doi.org/10.2166/wp.2008.209

Yilmaz, S. (2010). State, power, and hegemony. *International Journal of Business and Social Science*, *1*(3).

Yoffe, S., Wolf, A. T., & Giordano, M. (2003). CONFLICT AND COOPERATION OVER INTERNATIONAL FRESHWATER RESOURCES: INDICATORS OF BASINS AT RISR 1. *JAWRA Journal of the American Water Resources Association, 39*(5), 1109-1126. https://doi.org/10.1111/j.1752-1688.2003.tb03696.x

Young, O. R. (2002). The institutional dimensions of environmental change. https://doi.org/10.7551/mitpress/3807.001.0001

Zeitoun, M., & Allan, J. A. (2008). Applying hegemony and power theory to transboundary water analysis. *Water Policy*, *10*(S2), 3-12. https://doi.org/10.2166/wp.2008.203

Zeitoun, M., & Mirumachi, N. (2008). Transboundary water interaction I: Reconsidering conflict and cooperation. *International Environmental Agreements: Politics, Law and Economics*, *8*(4), 297-316. https://doi.org/10.1007/s10784-008-9083-5

Zeitoun, M., & Warner, J. (2006). Hydro-hegemony – a framework for analysis of trans-boundary water conflicts. *Water Policy*, *8*(5), 435-460. https://doi.org/10.2166/wp.2006.054

Zwarteveen, M. Z., & Boelens, R. (2014). Defining, researching and struggling for water justice: Some conceptual building blocks for research and action. *Water International*, *39*(2), 143-158. https://doi.org/10.1080/02508060.2014.891168