

Hydro-Hegemony in World Politics; a Case Study of Israel, Palestine and the Jordan River Basin

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Abstract

The following dissertation will critically investigate the water governance of the Jordan River Basin, focusing on this in relation to Israel and the Occupied Palestinian Territories. By adopting a hydro-hegemony theoretical framework the dissertation will conduct a thematic policy analysis to root out and spotlight how Israel has wielded a multi-pillar power structure to maintain dominance over the basin. In doing so, effectively constraining Palestinian communities in the occupied territories and forcing self-benefiting dependence on them water, an essential resource. Through highlighting the power dimensions through which this hegemony is maintained, the dissertation will then utilise another theoretical framework of environmental peacebuilding to propose tools built on these principles that could counteract Israel's hydro-hegemony. Moreover, environmental peacebuilding is exposed to have the capabilities not only to counteract Israel's hydro-hegemony but also to build a more equitable and sustainable water governance over the Jordan River Basin. Furthermore, the research presented in this dissertation moves beyond strictly realist interpretations of transboundary resource conflicts and inequalities, by highlighting the value and potential in centring focus on environmentally centred governance structures which can in turn address oppressive power asymmetries. Ultimately, this research offers a comprehensive, empirically grounded framework for restructuring transboundary water governance while offering lessons for addressing power asymmetries in global hydro-political conflicts.

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Ethics approval confirmation and declaration

'I declare that this research was approved by the SPAIS Ethics Working Group'

Research Question: How has Israel's hydro-hegemony shaped water governance between Israel and the Occupied Palestinian Territories, and how can Environmental Peacebuilding serve as a counter-hegemonic framework for equitable cooperation?: A case study of the Jordan River Basin.

Methodology: Policy Analysis

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List of Abbreviations

JRB – Jordan River Basin

OPT - Occupied Palestinian Territories

EP – Environmental Peacebuilding

IR – International Relations

JWC – Joint Water Committee

Chapter One

Introduction

Access to freshwater is key for human survival and while water covers over two thirds of Earth's surface, only 2.5% is freshwater with over 60% of this situated in transboundary river sources (Zawahri, 2016: 451). Equitable water governance of these sources must remain of high importance in both political agendas and academic literature, especially within conflict zones where tensions are high. One of the most obvious manifestations of needed attention in this area is the Jordan River Basin (JRB) which has five riparian's (an area of land that is related to or situated on the river's bank (Phillips et al. 2007)): Israel, Jordan, Lebanon, Syria, and Palestine (Young, 2015: 3). This dissertation will focus on researching the transboundary water governance of the lower Jordan River Basin between Israel and the Occupied Palestinian Territories (OPT) of the West Bank and Gaza as their heavy reliance on the basin for water and the high political tensions between these peoples make the situation particularly urgent.

Since the establishment of the state of Israel, which was implemented as a result of a Zionist desire for Jewish security, unrestrictive dominant access to water has been mandatory to the region's survival (Lowi, 1993: 122-123). Its hydro-hegemony was birthed here and has since festered and shaped the water 'cooperation' of the lower JRB on a bilateral hegemonic basis rather than a multilateral, equitable sustainable consensus (Jobson, 2003: 11). Following the 1967 Six-Day war, tensions between Israel and Palestine have remained alarmingly high as visualised by the current war in Gaza between Israel and Hamas (Dai, 2021: 1) with water, especially the management of the JRB being increasingly exploited. Recent figures show 95% of the water in Gaza is unfit for human consumption (Union for the Mediterranean, 2018). While there is evidence of attempts to manage the governance of the JRB, such as the Oslo II peace accords (1995) which established the Joint Water Committee via Article 40 (Brooks, Trottier and Giordano, 2020: 25-27), they have so far largely furthered and institutionalised Israel's hydro-hegemony through deep rooted power asymmetry.

1.1 Research Aims:

To propose a new equitable framework for future water governance between the two riparian's it is vital to understand the problems that are currently preventing equitable water governance. This dissertation will work to bridge this gap, often missed in existing literature, between identifying the hydro-hegemonic issues with the old and exploring a new counter-hegemony framework that could be applied to hegemonic cases of transboundary water basins, particularly the JRB. To enact this, this research employs a dual-theoretical framework of hydro-hegemony and Environmental Peacebuilding (EP) to critically analyse the past, present, and possible future water governance between Israel and the Occupied Palestinian Territories (OPT). This work is therefore guided by the overall research question: *How has Israel's hydro-hegemony shaped water governance between Israel and the Occupied Palestinian Territories, and how can Environmental Peacebuilding serve as a counter-hegemonic framework for equitable cooperation?: A case study of the Jordan River Basin*. Importantly, this dissertation will aim to examine EP not as just a theoretical or neutral technocratic tool, but as a potential transformative counter-hegemonic strategy by using comparative case studies to test its ability to disrupt Israel's pillars of dominance.

To fulfil these aims this dissertation will work to address three sub-questions, notably:

- How has Israel established and maintained hydro-hegemony in the Jordan River Basin, and through what dimensions is this power exercised?
- How can EP principles be operationalised to challenge Israel's hydro-hegemony and restructure water governance in the Jordan River Basin?
- What lessons does the Jordan River Basin offer for applying counter-hegemonic EP strategies in other transboundary water conflicts?

1.2 Research significance:

The importance of the JRB as a case study is multifaceted. Given that the current conflict has further disintegrated trust between nations and destroyed hundreds of water facilities, the JRB has an even higher importance to the health and survival of Palestinian citizens (Hall, Kirschenbaum and Michel, 2024). Research into a durable, flexible water governance structure that is not so easily subject to political change is of vital importance. Similarly, the waters of the JRB have faced a rapid decline in both quality and quantity with ecosystems around the basin have been subject to extensive degradation (Tadevosyan, 2019: 92), highlighting how the current management of the basin is far from sustainable. Moreover, access to clean and safe drinking water was formalised as a human right by resolution 64/292 in 2010 by the United Nations (UN) General Assembly and the UN Human Rights Council (UNDESA, 2015). Therefore, cases where this has been violated, as seen in the JRB, call for extensive attention to call out perpetrators and demand a change, this dissertation will contribute to this agenda.

It is vital to formalise that water is not just a natural resource best left to scientists or water practitioners, but a fundamental driver of geopolitics (Jägerskog, 2003: 12), particularly in regions where scarcity intersects with conflict. The JRB has been labelled as potentially the highest politicised basin in the world (Jobson, 2003: 11) and one of the aims of this dissertation is to call for further political analysis and attention.

Critical analysis through a hydro-hegemonic framework of past, present and possible future governance of the JRB is vital. Israel's profound power over basin waters defines it as a 'hydro-hegemon' (Seeberg, 2024: 34-40). Statistics reveal that the average Israeli uses four to six times the amount of water compared with the average Palestinian from the OPT (Niehuss, 2005: 13) while Palestinian citizens are even restricted from collecting rainwater throughout most of the West Bank, contributing to the lack of access to running water in 180 Palestinian communities (Amnesty International, 2017). This dissertation will work to root out and spotlight how these inequalities and weaknesses are structurally embedded within the current water governance framework, critically assessing how they have reinforced rather than reversed Israel's hydro-hegemony.

The research I have undertaken is also highly significant due to the contemporary background of climate change. Elmusá signifies this by labelling the image of the JRB a 'dystopian sight' through the conflict's contribution to its exploitation (Elmusá, 2024: 54). Additionally, the factor of ongoing climate change is considerably worsening the environmental condition of the JRB. Rising temperatures within the region (2020 saw record-breaking temperatures of 36.7 °C in Jerusalem and 45°C in Jericho (Elmusá, 2024: 51)), will lead to lower and more unpredictable rainfall, higher evaporation, and changes in water flow. The Israel Nation report estimates a 40% decrease in water supply levels by 2100 (Lautze and Kirshe, 2009: 195). Considering how much of the population is currently facing intense water scarcity, this will ultimately lead to a significant increase in mortality for many in the OPT.

These intersecting dynamics provide further evidence of the urgency of calling attention to the failure of current water governance of the JRB by Israel's hydro-hegemony while further highlighting the need for equitable, sustainable transboundary governance of the JRB and justifying the importance of researching EP as a counter-hegemonic framework for cooperation.

1.3 Literature review:

Transboundary water governance has become firmly established as a focus within contemporary international relations, political ecology, and environmental studies. In response to climate change, increased water scarcity, and the intensification of resource competition, scholars have debated whether transboundary water resources lead more often to conflict or cooperation and the ways in which both manifest (Öjendal and Rudd, 2017; Zawahri, 2016; Jägerskog, 2003; Selby, 2003; Cascão, 2008). Aaron Wolf, a seminal scholar in the field of hydro-politics, challenged the notion that scarcity would likely lead to conflict, arguing that cooperation is more likely to occur over the scaremongering "water wars" narratives due to mutual dependency of riparian states (Wolf, 1998, 2000). However, critical hydro-political literature has often criticised this view as overly idealistic. Scholars such as Fischhendler (2008) and Lowi (1993) argue that even when cooperation agreements exist, they often appear functional only at surface level, and they habitually institutionalise power inequalities and injustices. Further argued by Sheikh and Bateh (2024), the Oslo Accords and similar agreements have perpetuated a western peace process that has been built on systematic hegemony by disregarding the recognition of Israel's hydro-hegemony through its occupation of both land and resources to be the main factor threatening both the environment and the people of the region (Sheikh and Bateh, 2024: 79).

Following this analysis, Cascão (2008: 30) and Jägerskog (2003: 5-6) point out that by adopting a realist lens, transboundary water arrangements are revealed to be more often shaped to the most powerful riparian's best interests, leading to coercion, control, and securitisation. These insights have ushered a shift towards more critical engagement relating to transboundary water governance/management. A substantial body of literature explores possible governance models of the JRB through neorealism norms, emphasising the problem as a 'zero-sum game' (Elmusa, 2024: 55) whereby if one country gains the other loses. Jobson (2003) notes how ideals within both Israeli and Palestinian policies work towards this agenda, as to work together they would have to acknowledge the other's right to the land. However, as Öjendal and Rudd (2017) show, this leans into the infamous 'security dilemma' in International Relations theory halting the advancement of studies into sustainable transboundary water governance. Due to this extensive securitisation and politicisation of water, the relationship between transboundary water and climate change in promoting peace is rather under-researched (Öjendal and Rudd, 2017: 515).

Building on this shift toward more critical perspectives, a newly emerging hydro-hegemony framework has significantly advanced the literature in understanding how dominant riparian's consolidate control over shared basins. Zeitoun and Warner (2006) are key scholars within the field of hydro-hegemony, conceptualising it as an exercise of material, bargaining, and ideational power purposely imposed by the dominant state to further asymmetrical water governance, a framework later refined by Cascão and Zeitoun (2010) with the crucial addition of geographic power. Despite hydro-hegemonic framework's theoretical strength, a noticeable void exists in the literature concerning its limited empirical grounding and operationalisation. When applying a hydro-hegemony theoretical framework on the JRB - which is rarely explored in the literature - the majority of studies reference the framework in abstract terms narrowly focusing on one or two pillars of hegemonic powers as seen in Seeberg's work (2024). This fragmented approach prevents deeper

investigation into how Israel truly manifests its hydro-hegemonic control over the JRB and how it has maintained this system of injustice. This dissertation aims to fill an important gap by conducting a multi-pillar analysis. It draws on empirical evidence by critically investigating both historical documents and current material practices within the four key pillars of hydro-hegemony.

As Bakker (2007) asserts, water is extensively treated as a strategic commodity, resulting in the overt connection between water systems and the environment being increasingly lost in contemporary politics. This has consequently led to the exploitation and environmental degradation of water sources as is the case in the JRB. Therefore, alongside the hydro-hegemony literature, a parallel and often distinct but disconnected body has developed - the concept of EP. Pioneered by EcoPeace Middle East and supported by scholars such as Light (2020) and Sommer and Fassbender (2024), EP aims to structure water governance under environmental principles. It seeks to centre ecological interdependence in all models concerning transboundary natural resources, in turn increasing cooperation between states and building trust and potentially suppressing conflict. A body of the literature also critiques EP potential to structure water cooperation models, particularly its potential to depoliticise environmental and water-related conflicts that are highly political in context – such as the JRB disputes between Israel and Palestine. There are concerns that even highly politicised basins such as the Nile and the Jordan risk being depoliticised through technocratic ideals ushered in by EP. This could shift decision-making away from public and governmental arenas into semi-official or private domains which removes accountability and further obscures power asymmetries (Aggestam, 2018: 97–98). Similarly, Ide points to the risk that if EP is uncritically applied, scientific solutions would obscure the entrenched political controls in transboundary water governance models (Ide, 2020: 3), as can be seen in the JRB where the current water governance and cooperation is deeply entangled within historic inequalities, entrenched power relations, and contemporary political securitisation. This dissertation responds to these critiques by evaluating EP not as a neutral scientific mechanism, or solely as a peacebuilding strategy, but as a potentially counter-hegemonic tool. Therefore, rather than depoliticising the water governance in the JRB, it directly examines and addresses the entrenched power asymmetries within the basin.

Despite overlaps in the focus on water governance, hydro-hegemony and EP are rarely integrated together within academic literature. A small discipline of scholars, such as Cascão (2008) and Abitbol (2014), make suggestions on the integration of the two frameworks but stop short of analysing whether EP could meaningfully counteract the specific pillars of hydro-hegemonic power. This dissertation works to fill this gap by employing hydro-hegemony to map Israel's dominant water governance over the JRB, then critically examining whether EP produces any tools - discursive, legal, ecological, or grassroots-based - that can challenge or transform that dominance.

1.4 Geographical context:

Geographical context of the JRB helps visualise and understand the complexities of the basin. The basin is very important geographically to the Middle East, covering an area of 18,500 square kilometres and 250 kilometres in length bordering Jordan (40%), Israel (37%), Syria (10%), the West Bank (9%), and Lebanon (4%). The river serves as the main surface water supply to Israel and the OPT (Tadevosyan, 2019: 95). It originates from three primary water sources; the Dan, Banias, and Hasbani Rivers situated south of the northern border of Israel. The waters move south into the Sea of Gallie and continues flowing in a southern direction, as the lower Jordan river, forming borders between Israel and Jordan and between the West bank and Jordan before meeting its delta and joining the Dead Sea (Tadevosyan, 2019: 95-96). The climatic condition of the basin is largely arid, averaging an annual precipitation rate of 380 mm/year,

although the West Bank mountains receive over 650 mm/year and acts as a natural rain catcher (Messerschmid, 2007: 2-3).

1.5 Chapter Layout:

Including this first introductory chapter, my dissertation is laid out in six chapters. Chapter Two details the methodological and theoretical dimensions I used to carry out my research. Chapter Three and Four encompass the main body of my findings. Chapter Three critically investigates how Israel has constructed and maintained hydro-hegemony over the JRB through an incorporation of geographical, material, bargaining, and ideational power. Chapter Four then uses these findings to explore how EP can counter these hegemonic power pillars and proposes alternative water governance strategies. Chapter Five extends the discussion beyond the case study of the JRB drawing broader lessons for transboundary water governance globally. It also acknowledges the limitations of my study and where research could grow beneficially. Finally, Chapter Six concludes by synthesising the key findings of the my dissertation.

Chapter 2

Methodology and Theoretical Framework

2.1 Methodology:

This chapter outlines the methodological and theoretical frameworks utilised in the research of this dissertation. The rationale, research design, and data collection methods are stated and justified. The theoretical framework tools and structure is also situated within this chapter, offering guidance to the interpretation of data documents used.

The research used in this dissertation is based on qualitative desk-based analysis, using a critical style that draws from political ecology and International Relations theories. Its core concern rests on the study of a single scenario, the JRB, to allow for a strategic in-depth critical investigation into how power and water intersects, using the case study of one of the most politically asymmetrical basins in the world (Jobson, 2003: 11; Tadevosyan, 2019: 82–104). The choice of a qualitative analysis is optimal for my research objectives given the focus on how power asymmetries manifest in structural and discourse dynamics. Numerical data would not provide a comprehensive investigation of the legal texts, institutional mechanisms and political narratives where this form of hegemony appears. Simultaneously the research design allows not only the opportunity to critique but also for a layered and reflective analysis by investigating case studies that have applied EP principles within water governance of transboundary systems, exploring its capabilities to counter hegemonic patterns of control. My analysis draws on archival state documents, critical scholarship, and institutional and NGO reports.

This research is based on qualitative policy analysis, drawing on a diverse range of primary and secondary sources to evaluate both historic and contemporary data, ensuring the findings presented are both comprehensive and contextually informed. The research was conducted through a process of thematic analysis, following Braun and Clarke's (2006) six-phase model: data familiarisation, producing initial codes, searching then reviewing themes, naming themes, and producing a report. Following this process helped interpret important patterns into how hydro-hegemonic and counter-hegemonic practices are constructed, legitimised with the governance of the JRB. To further support the development of thematical analysis, I employed open, axial, and selective coding, as instructed by Williams and Moser (2019). Open coding was first used to categorise broad themes within sources (e.g. infrastructure control, discourse of security). Axial coding was then used to link these concepts to specific dimensions of power (e.g. material, ideational), refining and clustering related ideas. Finally, selective coding was used to identify core categories that directly align with the theoretical pillars of hydro-hegemony. This multi-layered coding process allowed for more complex and critical interpretations of both domination and resistance practices within the basin. Further policy analysis was used to investigate a multitude of case studies where EP dynamics were introduced to establish a more equitable water governance structure. They were analysed not as theoretical peacebuilding models but by assessing the tools presented to counteract Israel's hydro-hegemony within the JRB and to extract key recommendations to adopt within the water governance structure.

There are limitations to this dissertation. As a researcher based outside the JRB using desk-based research, the findings do not reflect current lived experiences within Israel and the OPT. While this position helps eliminate bias it also limits direct engagement with affected communities. Furthermore, long-term consequences of the ongoing Gaza war are not yet visible but may heighten the securitisation of the basin, as trust between the states is increasingly

eroded. However, I make sure to provide a balance of sources including Palestinian and Israeli scholars, NGOs and Palestinian and Israeli governmental reports while also providing a framework that could help reduce securitisation in the future. As this dissertation is limited to qualitative, desk-based analysis, there have been no major ethical implications for the research.

2.2 Theoretical framework:

To comprehensively and critically address my dissertation's research question, I will employ a dual theoretical framework of hydro-hegemony and Environmental Peacebuilding and state how they are defined in this dissertation and their core components.

The term hegemon is defined in international relations as the domination of one state over another through the use of the Weberian 'power over' (Menga, 2016: 406). Zeitoun and Warner's 2006 paper is often used as a grounding point for scholars when looking to define hydro-hegemony (Tadevosyan, 2019; Messerschmid, 2007; Cascão and Zeitoun, 2010). They define it as "hegemony at the river basin level, achieved through water resource control strategies...that are enabled by the exploitation of existing power asymmetries" (Zeitoun and Warner, 2006: page). Zeitoun and Warner make an important establishment that not all forms of hegemony are negative and it is down to the hegemon to create either a negative or positive hegemonic relationship over another actor/state, however they clearly state that Israel's hydro-hegemony is very much a negative relationship (Zeitoun and Warner, 2006: 436-451). However, I find a combined implementation of both Wessels (2015), Zeitoun and Warner (2006) and Cascão and Zeitoun (2010) definition to be both more nuanced and beneficial within the context of my dissertation. Wessels definition extends beyond a connection of hydro-hegemony to 'power asymmetries' of a water resource and links it to a 'colonial mentality' that undertakes a pathway of exploitation of a natural resource which in turn intentionally violates the safety of those who use it (Wessels, 2015: 601-623). I find this definition to more accurately describe the activities of Israel surrounding the JRB as well as the use of the word 'exploitation' to describe the situation of the basin and has larger environmental considerations which links to my other theoretical framework of EP. Furthermore, Cascão and Zeitoun's work extends Zeitoun & Warner's original work from considering hydro-hegemony originating from three pillars of power to four, by incorporating a geographic power dimension. This widens the political understanding of how hydro-hegemony is conducted and is especially relevant in the case of the JRB due to how Israel has used geographical elements to further dominate the OPT (Cascão and Zeitoun, 2010: 31).

The Four Pillars of Hydro-Hegemony Power (Cascão and Zeitoun, 2010: 31-39; Zeitoun and Warner, 2006):

1. Geographical Power: Upstream advantage and flow control (e.g. Israel's control over the Jordan River's headwaters).
2. Material Power: Open/hard forms of power. Economic, military, and technological superiority (e.g. Israel's highly superior military, much larger GDP and advanced water infrastructures and technologies).
3. Bargaining Power: Ability to shape outcomes of agendas and negotiation terms (e.g. the Oslo II Accord's Joint Water Committee and PWA ultimately subject to the will of Israel)
4. Ideational Power: Control over the context and legitimatisation of narratives or 'power of ideas' (Lukes, 2004) both nationally and internationally (e.g. Israel's framing of water control as a national security issue).

These four pillars of hydro-hegemony are a theoretical paradigm that can be used to investigate if a state/actor is truly acting in a hegemonic fashion and to what degree. The pillars also interlink, when one rises the others often follow. Throughout this dissertation each of the four pillars will be proved to have been used by Israel numerous times in the context of water, proving their hydro-hegemonic status and therefore acts as a critical lens to evaluate how it has prevented equitable and sustainable cooperation. Figure 1 illustrates the complexities and usage of hydro-hegemony and its four pillars within the context of the JRB. When researching hydro-hegemony, academic literature has often overlooked proposals of counter-hegemonic frameworks. My incorporation of an EP framework aims to fill this gap.

The EP theoretical framework, popularised by the NGO EcoPeace Middle East, will also be employed in this dissertation by analysing case studies of its implementation from which I will investigate its potential as a possible counter-hegemonic framework that could contribute to a more equitable governance of the JRB between Israel and the OPT. While there is no official guideline or concrete definition of how to conduct EP, it refers to how multiple initiatives of peacebuilding, both top-down (institutional) and bottom-up (community), can put environmental issues at the forefront of motivations and build foundational peace through a shared consensus to protect natural resources (Sommer and Fassbender, 2024: 1-2), shifting the focus from a scarcity-conflict nexus to a peace-sustainability nexus (Light, 2020: 1-2). While EcoPeace centres their framework of EP as a theory of conflict management (Light, 2020: 1-2), I will be extending this approach by focusing on its potential to be a counter-hegemonic framework that could help foster more balanced cooperation between Israel and the OPT over the JRB.

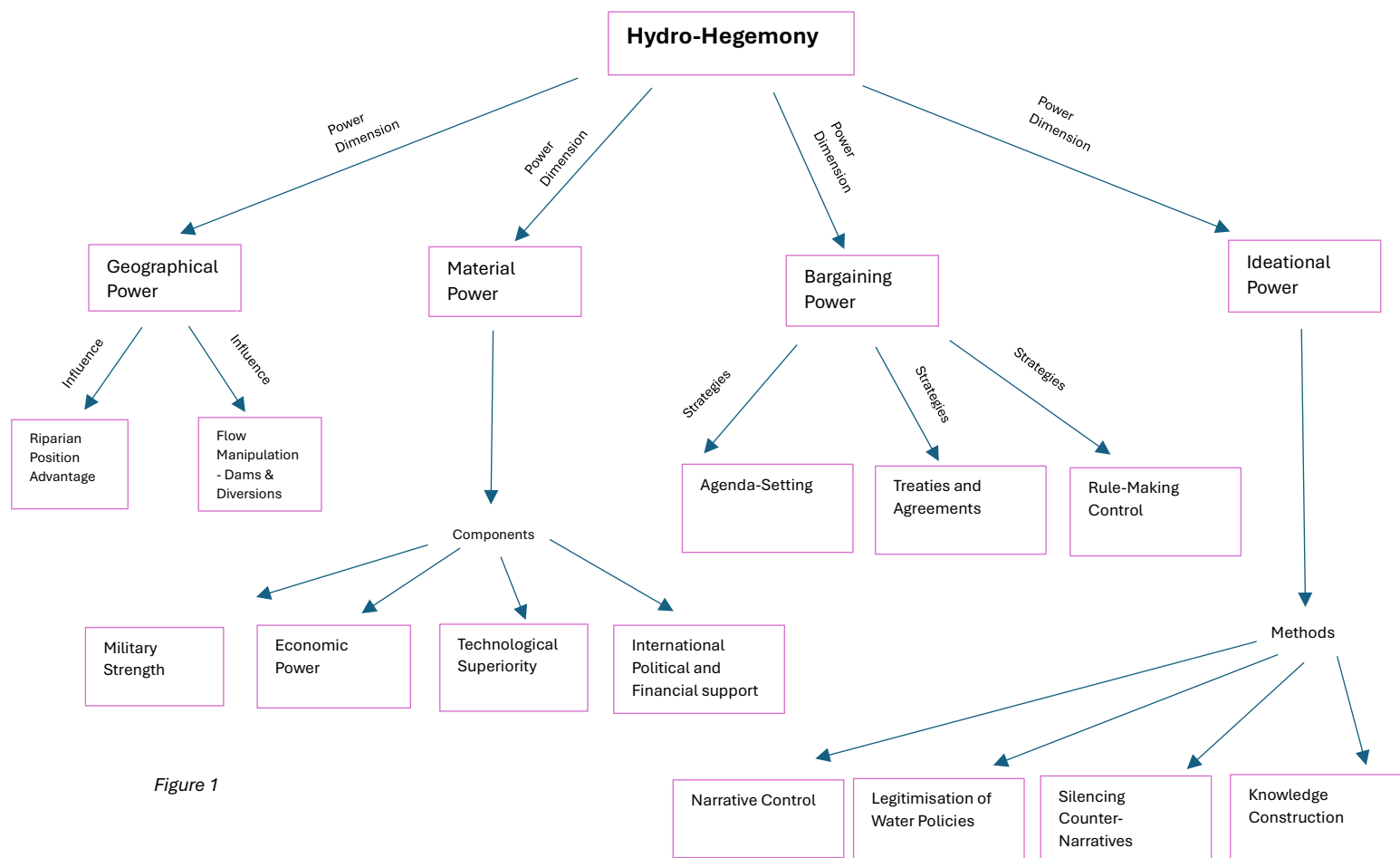


Figure 1

Chapter Three

Constructing Hydro-Hegemony: Israel's Multidimensional Domination over the Jordan River Basin

3.1 Introduction:

The following chapter will critically examine how Israel's hydro-hegemony over the Jordan River Basin (JRB) has been built, maintained, and exacerbated through the theoretical framework of four intersecting powers - geographical, material, bargaining, and ideational. Using this theoretical framework, which was developed by Zeitoun and Warner (2006) and expanded by Cascão and Zeitoun (2010) to identify hydro-hegemony, the chapter will investigate how Israel manipulated hydrological flows and upstream positioning, water infrastructure and institutional frameworks, and security discourse to entrench its extensive domination over the sources of the JRB to the detriment of Palestinian water access and autonomy, using a combination of historical and contemporary data. By spotlighting these hegemonic dynamics present over the JRB, the chapter sets the foundation for exploring a possible counter-hegemonic framework of EP as described in Chapter 4.

3.2 Upstream Control and Flow Manipulation:

3.2.1 Early Hydrological Control

The physical control over a river/river basin is a key resource capture strategy, equivalent to what Waterbury terms 'active unilateralism' referring to when one riparian takes deliberate action over a shared resource without consulting or cooperating with others (Waterbury, 1997: 279). This helps shed light on how Israel has managed to exert such an oppressive presence over the basin which has led to mismanagement and contributed to the environmental degradation of the river.

Yarmouk		Jordan Jier Sheikh Husein	
Date:	M3 per sec:	Date:	M3 per sec:
9/4/51	9.0	6/4/51	6.2
17/4/51	6.8	12/4/51	6.9
2/5/51	8.0	19/4/51	9.3
		26/4/51	11.6

Table 1 (Eastern Department Jordan, 1951)

Hydrological data of the Jordan river's flow, dating back to 1951, is one of the earliest visualisations of Israel's actions resulting in geographical changes to the river, foreshadowing decades of physical domination. Table 1 documents flow measurements that were taken at the Yarmouk (the largest tributary of the Jordan River) and at the Jisr Sheikh Hussein (the Jordan River crossing). The measurements taken during April and May 1951 show striking day-to-day changes in the Jordan's discharge at Jisr Sheikh Hussein compared with the Yarmouk's. For example, on April 9th the

Yarmouk flowed at 9.0 m³/s; a few days earlier (April 6th) the Jordan at Jisr Sheikh Hussein was measured at 6.2 m³/s. Similarly, on April 17th the Yarmouk dropped to 6.8 m³/s, broadly matching the Jordan's April 12th reading of 6.9 m³/s. However, abrupt spikes in Jordans flow were recorded on the 26th of May rising from to 9.3 m³/s to 11.6 m³/s in just 7 days which were inconsistent with the Yarmouk's more modest variations (9.0 → 6.8 → 8.0 m³/s over roughly the same interval). This sudden anomaly correlates with the observations made by the British that linked this inconsistency with Israeli actions further down the river noting:

“the gates at Deganiya interfere with the normal flow of the Jordan at its outlet from Lake Tiberias...the only conclusion that can be drawn from these figures is that for periods which may be long or short the gates at Deganiya interfere with the normal flow of the Jordan at its outlet from Lake Tiberias”

(Eastern Department Jordan, 1951, Annex II: 5).

Active manipulation of the discharge volumes through the Deganiya Dam gates represents an early form of active unilateralism, where Israel began exercising geographical power—deliberately altering river flow volumes downstream without consultation or consent from other riparian's. The control of the river's flow in turn severely restricted Palestinian use of the river due to increased salinity which made:

“irrigation no longer feasible...(which) can only be described as disastrous to the existing cultivators...also it effectively and decisively precludes all schemes of refugee settlement in the Jordan Valley...I am informed by the United Nations Relief and Works Agency for Palestine Refugees in the Near East that it has under active consideration four schemes in this area, each one dependent on pumping water from the river”

(Eastern Department Jordan, 1951, Annex III: 6)

The reports presented here serve as direct evidence of Israel's hydro-hegemony in the Jordan River Basin, in this instance, exercised through both geographical power (the upstream riparian manipulating the flow) and material power (through infrastructure and technical capacity) while in turn constraining the material and geographical power of Palestine. The removal of a key resource, water, even from Palestinian refugee settlements demonstrates how water has been a crucial component in upholding and exacerbating power asymmetries between Israel and the Palestinians, heightening tensions and untrust between the two peoples and leading to a mismanaged, unjust governance over the JRB. Israel's hydro-hegemony does not only appear through institutional frameworks but also as physical, environmental realities.

3.2.2 Riparian Repositioning and the 1967 War

The period leading up to and surrounding the June 1967 6-day war displays how conflict has been interwoven with water disputes and although it was not strictly a 'water war' (Ferragina, 2008: 159), a large motivation for the Israelis stemmed from efforts to halt an Arab diversion of the Jordan headwaters which they felt would infringe on their geographical standing. Israel's response altered both the political and hydro-political map by conducting a colonial style conquering of two of the three headwaters of the river, restructuring riparian positionings so they held a literal geographical top position and altering the flow of the river. As the Times reported:

“Israel, it is understood here, argues that she is only carrying out her part of the Johnston plan of nine years ago for the comprehensive use of all the Jordan basin waters”

(Eastern Department Jordan, 1962)

The Johnston plan was a US-led (1953–1955) proposal to share the water of the Jordan River through quantitative allocations between Syria, Israel, Jordan and Lebanon which was never formally signed by the Arab nations (Wolf, 1993: 804-805). This highlights how Israel has leveraged both bargaining and ideational power by proclaiming fairness through an internationally corroborated plan, one that notably excluded the OPT, to influence both domestic and foreign opinion of the legality of its actions while simultaneously consolidating its geographical dominance. Furthermore, the Johnston Plans water allocation for Israel was 400-450 million cubic metres per year (Soffer, 1994: 113) yet the data shows that Israel's usage is: *"estimated to be 528 million cubic metres per annum...the loss of this water has caused a considerable increase in the salinity of the waters of the River Jordan together with a lowering of its water level"* (Eastern Department, 1951). Again, Israel's unjust use of the river is well documented and demonstrates a clear breach of allocations while facing limited consequences after reaping ecological degradation on the river, establishing the mismanagement of the river.

Water conflict scholars Frey and Naff (1985) explain the gravity of these actions as occupying the geographical 'top position' constitutes one of the most powerful forms of resource control, effectively tying the hand of downstream riparian's through methods such as diversions, overuse and contamination (Frey & Naff, 1985: 78), dramatically shifting the regional balance of power. In turn the international acceptance of their actions has been well documented and efforts to stop these arrangements are hard to see. For example, the British rhetoric surrounding the issue is very passive, even enabling Israel's actions:

"whatever the rights and wrongs of the matter might be, I thought it highly probable that Israel would sooner or later succeed in diverting all the water of the Jordan. Short of reconquering Israel, ...little ...to prevent this and it would be realistic to take action accordingly"

(British Legation, 1951)

The phrasing *"whatever the rights and wrongs"* used to refer to Israel's actions emphasises a purposeful sidelining of legal and ethical investigations into Israel's actions framing the outcome of unjust exploitative diversion as one of inevitability. Moreover, suggesting the only course of action to halt Israel's approach would be *"reconquering Israel"* which is a suggestion made more for formality than feasibility. By choosing to normalise and accept Israel's asymmetrical control over the JRB rather than challenge it, Israel's position as a hydro-hegemon is entrenched.

3.3 Structural Power: Institutional Control and Infrastructural Dependence:

3.3.1 The Oslo II Accords and the Joint Water Committee

Israel's role as a hydro-hegemon over the JRB is further practised and entrenched through institutional frameworks shaping the management of the basin to be distinctively Israeli, practising extractive and colonising techniques over water resources, constraining communities in the OPT to be reliant on Israel for water access and permissions.

Following the 6-day war, and during the brief diplomatic window of 1993–1995, there was a strong motivation to formalise a water governance framework over the JRB between Israel, and the OPT (Schiff, 2012: 69-70).

Consequently, the Israeli-Palestinian Interim Agreement, more commonly referred to as the Oslo II Accord, was signed in 1995 (Tadevosyan, 2019: 85-86). Under this agreement a number of institutional mechanisms were introduced that legitimised and entrenched existing power asymmetries in Israel's favour concerning the Jordan River Basin. Chief among these was the creation of the Joint Water Committee (JWC), which Jan Selby (2003) critically

describes as a “tool of domination.” While the JWC was structured to include an equal number of Palestinian and Israeli members with policies supposedly designed to enrich cooperation, they mask and help perpetuate deep power asymmetries between the two states. Article 40 of Annex III outlines the JWC’s mandate, stating that:

“all decisions... shall be reached by consensus,” and that any development or extraction of water resources by either party *“shall require the prior approval of the JWC”*

(Israeli–Palestinian Interim Agreement, 1995, Annex III, Article 40).

By highlighting that “all” decisions must be discussed and agreed by the equal number of representatives to reach a “consensus” creates an image of fairness, in practise however it institutionalises a de facto veto power which Israel has continuously exploited (Messerschmid, 2007: 10). This arrangement evidences Israel’s use of the bargaining power pillar, as the dominant state, where they have manipulated a formal agreement to prevent the weaker state from establishing their own resource structures and limiting their choices, proving their role as hydro-hegemon to be a negative force. As Bachrach and Baratz (1962) argue this power is truly evidenced through the limiting of real choices, in turn setting up agendas to benefit the hegemon.

3.3.2 Infrastructure monopolisation:

Infrastructure design and the financial structures interwoven within it have played a critical component in constructing a mismanaged, unjust water cooperation model over the JRB and its resources and in turn propelling Israel as its hydro-hegemon. By creating Israeli controlled water infrastructure, Palestinians are left economically and physically dependent on these structures for survival. Data from the PWA and Mekorot, Israel’s national water company which extracts water largely from the Jordan River and Lake Tiberius (the primary reservoir of the Jordan river regulating its downstream flow), provide a stark illustration of this form of hydro-hegemony. The PWA reports that 40% of West Bank water is supplied by Mekorot, with Palestinian residents being charged according to Israeli domestic costs rather than local production costs (PWA, 2011). This is a clear example of a lack of equitable access to water resources. Further exemplifying this is the variation in water tariffs. Tulkarem sources only 3% of their water requirements (0.4 MCM) from Mekorot and obtains the rest from their own wells, subsequently shouldering far less of a financial burden, while Ramallah and East Jerusalem are forced to buy over 86% (19.7 MCM) of their water needs from Mekorot, facing charges as high as 4.11 NIS per m³ (PWA, 2011). This economic disparity spotlights Israel’s exercise of material power through financial dependency to reinforce hydro-hegemony over the OPT. This price and import disparity reflects the deliberate entrenchment of Palestinian dependence on Israeli infrastructure. Article 40 of the Oslo II Accord legally formalises this form of Israel’s hydro-hegemony by stating:

“In the case of purchase of water by one side from the other, the purchaser shall pay the full real cost incurred by the supplier, including the cost of production at the source and the conveyance all the way to the point of delivery.”

(Israeli–Palestinian Interim Agreement, 1995, Annex III, Article 40).

Although this provision could appear neutral, in actuality it provides legal cover for exploitation especially as construction of their own resources, like water wells, have been restricted through this agreement by the JWC. Here Israel exercises bargaining power not through overt blockades but through coercive dependence embedded in institutional agreements like Oslo II while enhancing their control through the material power of infrastructural economic control. Under the guise of cooperation, Palestine’s water autonomy is suppressed. Engaging with material

directly from Mekorot further spotlights this disproportionate power structure. In a published 2023 ESG report, Mekorot underscores its prioritisation by solely supporting Israeli water security during the Gaza war (2023-present) while seemingly forgetting about its Palestinian civilian customers in the OPT.

“Despite significant obstacles, Mekorot remained steadfast in delivering a continuous and safe water supply to all residents of Israel, even amid direct security threats...” and

“Throughout October, Mekorot focused on repairing facilities damaged in the attacks, collaborating closely with local communities and the IDF...”

(Mekorot, 2023: 7)

Mekorot’s support for Israel and the IDF (Israel Defence Forces) is well established through these statements using words and phrases such as “*steadfast*” and “*collaborating closely*” highlight its alignment with Israel’s security priorities and its role in reinforcing Israel’s national defence narrative. Moreover, the report only mentions the Palestinian Authority six times throughout its 65 pages, and the phrasing is used to reflect a contractual agreement rather than this interpersonal cooperative network as seen with its dialogue towards working with Israel. Al Jazeera and other independent reports have documented that Mekorot has repeatedly restricted water supply to Palestinian towns and villages, especially within Area C (Khalel, 2016; Amnesty International, 2017; Middle East Monitor, 2023), further reflecting how water infrastructure has been built with an Israeli advantage and will always work to further this power imbalance. Mekorot’s actions show how Israel’s material power, through infrastructure control, deepens the Palestinian’s vulnerability and dependence on Israel for water access, effectively using water infrastructure as a tool of control rather than cooperation.

3.4 Securitisation: The Rhetorical Foundations of Hydro-Hegemony:

Securitisation theory, developed by the Copenhagen School in the 1990s, advances security by being not solely related to military dimensions but also how issues are framed as existential threats through “speech acts” (Wæver, 1996: 110; Buzan et al. 1998). This purposeful, repetitive speech permits ruling elites to legitimise discriminatory and/or unequal acts under the guise of national survival (Coskun, 2009: 97-99). Securitisation plays a significant role in maintaining Israel’s position as a dominant hydro-hegemon over the JRB. Through maximising and leveraging ideational power and by shaping the discourse of its relationship with the JRB as a non-negotiable national security matter, Israel has been able to influence the international and domestic perceptions around the basin while legitimising its material and geographical domination of the river.

2.4.1 Official Discourses and Power Narratives

The rhetoric of Israeli officials surrounding the JRB confirms how water has been heavily subjected to securitisation, woven into part of the Israeli defence programme and used to justify the deep power asymmetry of the water cooperation between Israel and Palestine. A speech by Prime Minister Levi Eshkol (1963-1969) explicitly equates unrestricted access to the Jordan river with national survival in 1965, affirming:

“Water is life to us...we will fight to defend the Jordan waters”

(Eastern Department, 1965, E1421/18)

His language underscores how Jordan river water is not treated merely as an economic/agricultural resource but one crucial to the survival of its inhabitants, effectively utilising ideational power to cement public perception and policy legitimacy over the unjust water capture. Moreover, by framing a resource to be part of a nation's survival mechanism equates criticism of their water policies to treason, or for international parties a direct attack on their sovereignty (Zeitouna and Warner, 2006 : 448). Such framing reflects what Gaventa (2009), building on Lukes' third face of power, terms 'invisible power' referring to the internalisation of dominant ideologies, values, belief systems and conditioning norms (Gaventa, 2009: 28-29). Through this lens, Israel's securitisation discourse works as a form of hegemonic thought-control, closing space for critique.

Following the 1967 Six-Day War which resulted in Israel increasing its geographical power by capturing the now OPT and Oslo II which established their legal authority in West Bank, particularly Area C, the physical geography of the Jordan River and the surrounding areas were incorporated into Israel's defence boarder. During a very public interview on 'The Charlie Rose Show', a popular American talk show, Deputy Defence Minister Ephraim Sneh highlighted how the geography of the Jordan River had been heavily securitised both in rhetoric and action by stating that to prevent another Arab army being deployed in the West Bank or Gaza "*the Jordan River as the defence border of Israel*" is essential and must stay (Israeli Ministry of Foreign Affairs, 2000a). The same year Prime Minister Ehud Barak designated a portion of his speech on the fifth anniversary of the assassination of Yitzhak Rabin to furthering the ideology of the river's essential role in the security of Israel declaring:

"Israel requires a security and settlement presence along the Jordan River. Whoever believes that "peace is security," so that there is no need for special security arrangements in peacetime, has no idea of where he's living."

(Israeli Ministry of Foreign Affairs, 2000b)

Barak's securitisation rhetoric establishes a permanent military presence over the Jordan river and is phrased as essential by leveraging their geographical power to uphold strategic control over the resource and effectively blockade Palestinian access. Furthermore, such rhetoric underpins geographical and ideational power within the hydro-hegemony framework deployed by Israel, framing the physical boundary between the river and the OPT as an essential geopolitical line of defence required for lasting peace.

2.4.2 Current Catalysts of Securitisation

Contemporary Israeli securitisation of the JRB remains deeply embedded in both rhetoric and policy. Since the start of the Gaza 2023 war Israel has followed its same pattern as framing water resources as necessary to their security, going even further by damaging and destroying Palestinian water infrastructure in the name of securitisation (Samad, Butcher, and Khalidi, 2024), reinforcing these hegemonic narratives both domestically and internationally. This echoes what Feitelson (2005) describes as 'sanctioned discourse', meaning what has been extended to be acceptable in political speech by the hegemon. Allan furthers this analysis by speaking on how sanctioned discourse is deployed to obscure deeper issues of power imbalances over water resources and limiting the voices that speak against the status quo (Allan, 2001: 182).

Prime Minister Benjamin Netanyahu again articulates this contemporary continuation of the securitisation of the JRB proclaiming:

“Our line of defence is here, on the Jordan River... there is no alternative... the IDF must stay here... this is the State of Israel’s insurance policy”

(Israeli Ministry of Foreign Affairs, 2011).

Netanyahu’s statement reaffirms Feitelson’s and Allan’s theory of sanctioned discourse as here it is clear through the rhetoric of Israel’s current Prime Minister, Israel justifies its militarised blockade along the river as a non-negotiable “insurance policy”, which in actuality, is a transboundary source with multiple riparian’s with equal rights to its water (including the Palestinian communities in the occupied territories). By reinforcing this hegemonic security narrative that fuses water, territory, and security, Israel consolidates its ideational and geographical power which in turn is conducted through superior material power, in this instance military strength.

Chapter Four

Environmental Peacebuilding as Counter-Hegemony in the Jordan River Basin

4.1 Introduction:

The analysis incorporated into the previous chapter identified how Israel conducts and maintains its hydro-hegemony through four interwoven pillars of power - material, bargaining, geographical, and ideational. This chapter will extend this analysis beyond much of the present literature. Rather than treating Environmental Peacebuilding (EP) as a purely theoretical construct, this chapter will synthesise practical lessons from case studies to propose an EP framework that could serve as a counter hegemonic strategy for water governance in the JRB. It will work to bridge theory and practise, developing a framework rooted in sustainable, equitable, and adaptable mechanisms. Drawing from EcoPeace's seminal work, alongside findings from international organisations and a range of case studies, the chapter explores how EP strategies could be used to counteract Israel's hegemonic control over the basin. As Tänzler insightfully points out, creating an effective EP framework is especially challenging as its success is subject to context specific situations such as heightened conflict and acute resource scarcity (Tänzler et al. 2018: 5). However, by examining how Israel's hydro-hegemony is operated through its four core pillars, this chapter will assess how EP principles might directly confront and disrupt each of them. My work here aligns with Foucault's (2007) concept of counter-conduct which refers to opposing dominant power structures through environmental practises.

4.2 Countering Geographical Power: Restoring Ecological Flow Justice:

Israel's authoritative geographical power over the JRB stems from its colonial style grasp of the upstream position of the Jordan river which has enabled manipulation of the river's natural flow to serve its own interests at the expense of downstream riparian's. As shown in Chapter Three, Israel has exploited this power by diverting vast volumes of water, primarily through the NWC and upstream capture points leading to a dramatic reduction in its flow (down from 1,400 MCM/year in the 1950s to just 30 MCM/year by 2018 (World Bank, 2018)). This has paved the way for ecological disaster already seen by the high rates of the river's salinity and also subjecting weaker downstream riparian's like the OPT to constructed water scarcity, in effect weaponising Israel's geographical position to further its hegemony.

Looking at cases of EP implementation, several strategies stand out as options that could effectively combat Israel's exercise in geographical hegemony to ensure a more equitable water governance access model over the JRB. Although never ratified, the outdated Johnston plan allocations serve as legal justification to Israel's extensive withdrawals from the basin's water sources, as argued by McAllister and Wright (2019). These numerical allocations are highly unfit for areas facing the sharp effects of climate change, with the Middle East and Africa (MENA) being two of the world's most vulnerable regions (World Bank, 2023). EP instead advocates for adaptive, needs-based, and environmentally sustainable sharing mechanisms which has been used both in the Senegal and Mekong basins which design water sharing around seasonal fluctuations and ecological boundaries (UNEP, 2024). Furthermore, cooperation between Peru and Ecuador structured their water governance around mitigation strategies for climate change, engaging in joint restoration, flood mitigation, and reforestation efforts across historically tense borders (UNEP, 2009). Despite conflict history over borders in the Amazon region, these states demonstrate a transferable

model for the JRB through shared ecological vulnerability measures fostering cooperation and demonstrating how, if utilised, EP measures can effectively counterbalance hegemonic monopolisation over natural resources.

4.3 Countering Bargaining Power: Inclusive Institutions & Participatory Governance:

The findings in Chapter 3 further identify how Israel has constructed institutional, legally binding mechanisms to further its dominant control over the JRB, effectively weaponising bargaining power to set agendas that serves its interests. Chief among these is the de-facto veto power of the Joint Water Committee, formalised by Oslo II, which overwhelmingly benefited Israel while systematically subjecting the OPT to denied water development and governance.

To counter these hegemonic practises, structural reforms are essential. EP tools offer concrete strategies to implement these changes into formulating more inclusive and equitable decision-making models. Lessons from the inclusion of these strategies applied to other asymmetrical water governance settings demonstrate its potential to be applied in the JRB. In Ethiopia for example, the United States Agency for International Development (USAID) established peace centres for climate and social resilience that formulated multi-stakeholder water governance bodies made from local communities from historically rival groups, enabling space for shared access and collaborative management of water resources (Tänzler, Rüttinger, and Scherer, 2018). Similarly, the Good Water Neighbours project (GWN), founded by Eco Peace in 2001, designed as an EP initiative, exemplifies the potential these initiatives hold to directly disrupt Israel's hydro-hegemony by countering its coercive use of bargaining power. GWN involves the inclusion of Israeli, Palestinian and Jordanian local and youth communities by stressing the focus on shared ecological risks that transcends political boundaries, an approach that greatly encouraged mutually beneficial cooperation (EcoPeace Middle East, 2008). This approach fosters dialogue and problem solving at community level rather than elites who have been responsible for previous inequitable usage of shared natural resources.

While used as a peace building strategy, the EP principles incorporated within the GWN project offers clear potential to counter Israel's hydro hegemony over the JRB. By promoting dialogue, transparency, and joint environmental planning at all levels, GWN style models provide an alternative architecture to the exclusionary frameworks that are currently operated over the JRB redistributing the bargaining power between Israel and the Palestinian communities of the occupied territories. Furthermore, the inclusion of voices -including women, youth and local stakeholders- not only enhances the equity and durability of natural resources but also strengthens the long-term resilience for peace by embedding legitimacy at all levels (Stork, Travis, and Halle, 2013: 7-36). Therefore, when institutionalised, EP becomes more than an abstract ideal but a functional counterweight to Israel's hegemonic bargaining power.

4.4 Countering Material Power: Inclusive Institutions and Participatory Governance:

As established in Chapter 3, one of the most entrenched mechanisms of Israel's hydro-hegemony over the JRB lies in its material power, largely through control over infrastructure, technology, and economic tools that have denied equitable access for Palestinians in the OPT while simultaneously creating a structure of Palestinian dependency on Israel for water. Through institutions such as Mekorot, legally established under Oslo II, Israel has maintained dominant control over the water while systematically blockading the development of Palestinian autonomous water

infrastructure. Replacing this coercive infrastructure regime with a model built on EP principles would offer a counter-hegemonic toolkit, reframing water infrastructure not as an asset but a site of shared environmental protection. To action this, the research points that a decentralised water infrastructure with equitable access to the source and its data would help to grow lasting peace cooperation (Matthew, Brown and Jensen 2009; McAllister & Wright, 2019).

Central to furthering this agenda has been the United Nations Environment Programme (UNEP) which has helped drive groundbreaking EP initiatives between multiple conflict sensitive nations. One initiative was introduced to the Sistan Basin which included Afghanistan and Iran as riparians, a region left devastated by drought, mismanagement and conflict resulting in deep mistrust between the states. The UNEP introduced inter-regional officials to share hydrological data, design co-funded restoration projects and establish joint advisory committees (UNEP, 2003). The introduction of these officials helped build trust through shared environmental infrastructure and enhanced more equitable access through shared data. Moreover, in Afghanistan and Darfur, the UNEP has furthered the establishment of decentralised water projects within local communities which have contributed to local-level peace and ensured basic water needs are met outside state-controlled systems (Tänzler et al. 2018; UNEP, 2009). These manifestations built on EP principles challenge bureaucratic infrastructures by building alternative water resources that are legally and financially insulated from hegemonic actors. One of the most successful manifestations of the approach is pioneered by the Eastern Nile Technical Regional Office (ENTRO) which was established in 1999 to support cooperation between the four riparian's of the Eastern Nile - Egypt, Sudan, Ethiopia and South Sudan (Nile Basin Initiative and Eastern Nile Technical Regional Office, 2025: 2). Despite these states having stark power asymmetries, ENTRO championed movement towards transparent water governmental structures over this shared resource, through tools like the "One System Inventory". Additionally, ENTRO facilitated the creation of a no-borders database of the natural resources of the Eastern Niles sub-basins and streams (Nile Basin Initiative and Eastern Nile Technical Regional Office, 2025: 6-7). This transparency influences exploitation of water sources and in turn encourages mutually beneficial cooperation which has seen substantial results: of the 23 water development projects launched, 78.26% have directly benefitted three riparian's, while nearly half directly benefit all four.

These transboundary case studies illustrate how applying frameworks built on environmental principles fosters more decentralised and transparent water infrastructures that can meaningfully rebalance the material power that Israel has been wielding over the JRB, constraining Palestinians to be water scarce and dependent. Evidence from Gaza further highlights its counter-hegemonic potential as local desalination and water reuse projects that have been built by the United Nations International Children's Emergency Fund and the EU since 2018 have allowed the local Palestinian communities to meet their basic water needs without being at the mercy of Israeli infrastructure (UNICEF, 2017), which can at any moment be denied. More widely, incorporating water structures built in an EP fashion would help dismantle Israel's infrastructural monopoly by creating alternative networks of access and production, proving it not just a cooperation mechanism but an agent of structural and economic change.

4.5 Countering Ideational Power: Transformative Narratives & De-securitisation:

One of the four key pillars of power utilised by Israel to build and prop up its role as the hydro-hegemon over the JRB is ideational power. By employing heavily securitized rhetoric linking Israel's absolute control over the JRB as an imperative to Jewish survival, Israel both justifies its dominance and delegitimises Palestinians claims to the basin, embedding these narratives deeply within the state's ideology and public perceptions.

EP, however, can restructure narratives through stressing water resources not as a security asset but as a shared ecological resource. Furthermore, while both securitisation and de-securitisation have been conceptualised by the Copenhagen School, de-securitisation has been under researched (Coskun, 2009: 97-98). Coskun further challenges the Copenhagen School's conclusion that the process of de-securitisation and securitisation is a strictly political process undertaken by political elites. He points to the important role that NGO's and civil society can play in desertification which can ultimately lead to better quality and quantity of shared water resources by encouraging diverse cooperation and actively reframing inter-group perceptions (Coskun, 2009: 98). EP therefore stands as a credible alternative structure that can counter Israel's ideational control.

Examples of EP's potential to counteract Israel's ideational domination are not hard to find. The project 'Birds Know No Boundaries', for example, is a transboundary environmental initiative centred around protecting migratory birds that habitually cross and rest over the Jordan valley – a shared region of Jordan, Israel and Palestine (Roulin et al. 2017). By pushing the notion of shared responsibility and environmental goals, communities from the three states coordinated the installation of 3,000 nesting boxes in Israel and more than 200 each in Jordan and Palestine leading to an increase in the migratory bird's population and enacting joint seminars and discussion boards in both Hebrew and Arabic to spread awareness (Roulin et al. 2017: 308). Projects such as this encourages narratives that the environment is a common good and that protecting it transcends borders, actively challenging the ideational scaffolding that sustains Israel's hegemonic discourse.

4.6 Policy Recommendations for Countering Israel's Hydro-Hegemony via Environmental Peacebuilding:

- Establish transparent, third-party monitored water data systems to prevent unilateral flow manipulation.
- Replace outdated allocation models with climate-adaptive, needs-based sharing frameworks.
- Build inclusive, decentralised water governance bodies with meaningful roles for locals, women, and youth actors.
- Encourage grassroots initiatives like Good Water Neighbours to decentralise water governance power.
- Launch cross-border ecological restoration projects to build interdependence and resilience.
- Support symbolic cooperation (e.g. Birds Know No Boundaries) to de-securitise natural resources in public narratives.
- Integrate bilingual ecological education to encourage long-term de-securitisation.
- Fund water restoration efforts through an independent EP trust fund that covers the entire basin.

Figure 2 represents a tailored made EP toolkit to integrate over the JRB to counter Israel's hydro-hegemony that has been previously blanketed over the OPT.

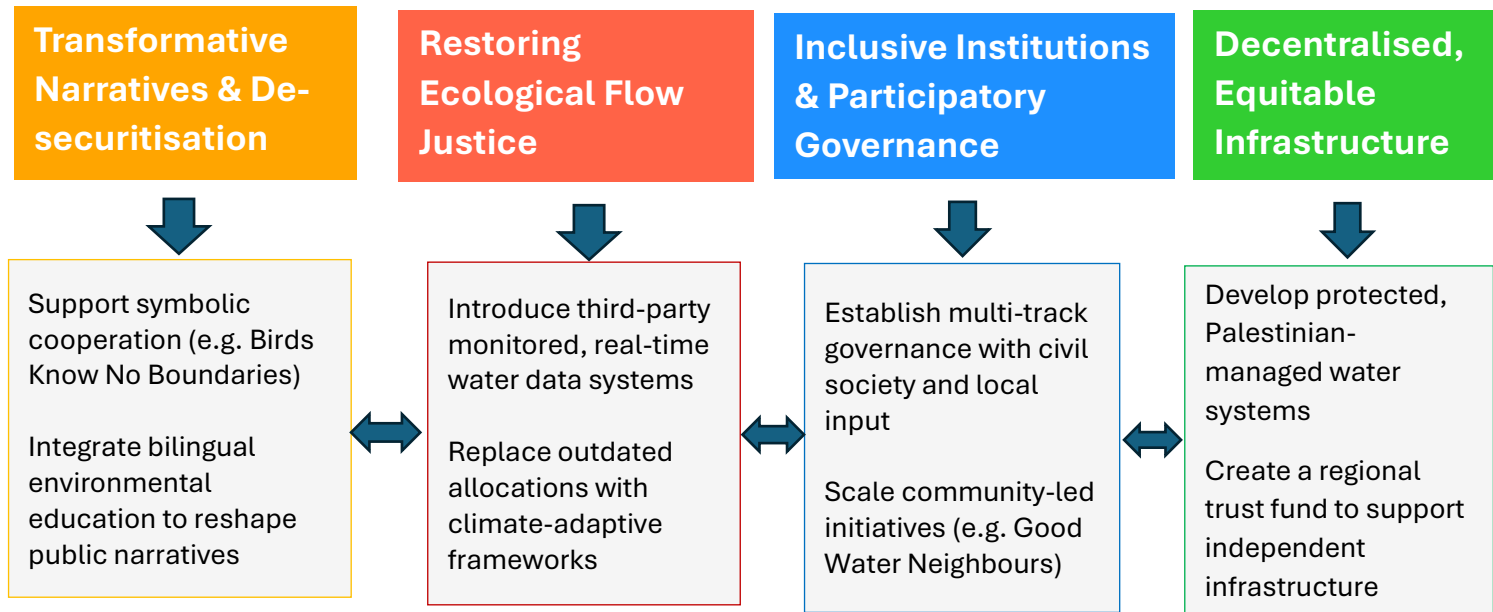


Figure 2

Chapter Five

Reimagining Water, Power, and Peacebuilding Beyond the Jordan River Basin

This dissertation's investigation into hydro-hegemony and EP in the JRB transcends its regional focus, offering critical insights for broader debates around the geopolitics of power, environmental governance, and conflict. By demonstrating how Israel simultaneously wields a four-dimensional paradigm of power (geographical, material, bargaining, and ideational), it expands hydro-hegemony theory into a more operationalised framework, one that can be applied across a myriad of transboundary water governance cases to assess their hegemonic nature. Moreover, the case of Israel and the OPT highlights how hydro-hegemony is operationalised through colonial neorealist philosophies.

This research can also be contextualised within settler-colonial frameworks, which have defined how foreign authority over a land, which was not previously theirs, under the motivation of territorial control replacing previous systems with exclusionary ones that reject indigenous access to shared natural resources (Nine, 2022: 219-221). Israel's manipulation of the JRB through flow control, institutional and infrastructural dominance renders Palestinian water autonomy illegitimate and possesses shared resources for national gain. Extending this logic, settler-colonialism must also be understood as impacting not just indigenous communities but also marginalised ones such as Palestinians in the occupied territories.

Similar patterns are observable in basins like the Nile and Mekong, where upstream states weaponise their disproportionate power to marginalise downstream states, reinforcing a pattern of environmental colonialism. This JRB case also exposes how liberal environmentalism intersects with illiberal power structures. As articulated by scholars, environmental frameworks created by Western liberal democracies, when imposed within illiberal contexts, often results in prioritising the rights of individuals and establishing surface level cooperation (Sonnenfeld and Taylor, 2018: 516-517). This leaves the entrenched power inequalities to manifest and manipulate these environmental liberal frameworks to legalise the dominance of the hegemon. In the JRB, this is evident in the Oslo II Accord and the Johnston Plan. Such dynamics are not unique to the JRB, for example Turkey's GAP dam project benefits the more powerful riparian's despite the 'collateral damage' being Syria (Warner, 2008: 284), revealing how institutional frameworks can legitimise rather than resolve dominative hegemony. This aligns with political ecology's view that environmental crises, such as water possession, are always related to political-economic configurations

This dissertation also contributes to rethinking EP. Rising above criticisms that it risks depoliticising transboundary water issues through technocratic and ecological language, by directly challenging political structures that have reinforced hegemony. Applied to the JRB, EP offers a transferable toolkit for confronting hegemonic control over transboundary resources which can be investigated in future research on basins such as the Nile, Mekong and Tigris-Euphrates. Building on this dissertation, future research could further test the long-term effects of applying EP principles to cases of hydro-hegemony and its potential to permanently rebalance power asymmetrical structures and discourage conflict in politically sensitive regions. Furthermore, this research employs its EP framework through a largely anthropocentric lens, treating nature as an instrument to address human injustices. While a moral case, a promising research direction would be to critique this anthropocentric framing and reimagine EP's principles to centre on theories such as ecological justice, post-humanist and ecocentrism theories, that decentre the human in favour of broader planetary considerations.

Chapter Six

Conclusion

The purpose of my study was to critically examine how Israel's hydro-hegemony has shaped water governance in the JRB and then to use these findings to assess how EP principles work as a viable counter-hegemonic framework. Using this dual-theoretical approach to analyse both historical and contemporary components of transboundary water governance, this dissertation has demonstrated how power asymmetries have been embedded within the water structures between Israel and the OPT and how they can be meaningfully challenged.

The findings in Chapter 3 established how Israel's hydro-hegemony is maintained and exacerbated through all four pillars of power - geographical, material, bargaining, and ideational. Upstream positioning and flow manipulation, infrastructural control manufacturing forced dependence, and securitisation rhetoric all encompass elements of these pillars that have collectively constructed and propelled a system of structural water inequality. These findings corroborate key arguments in critical hydro-politics literature that state institutional cooperation mechanisms have either masked or entrenched power inequalities (Zeitoun and Warner, 2006; Wessels, 2015; Cascão and Zeitoun, 2010; Seeberg, 2024). My findings extend the literature however by employing a full four-pillar power framework upon extensive empirical evidence to establish a nuanced perspective of how hydro-hegemony functions in practise in the JRB.

Chapter 4 then turns to the potential of EP, not just as a peacebuilding strategy which is how it is mostly assessed in academic literature, but as a strategy to counter the power pillars that have maintained Israel's hydro-hegemony. Through case studies and applied policy models, the findings show how EP encompasses tools capable of confronting and reverting each pillar of Israel's hydro-hegemony - namely through restoring ecological flows, decentralising infrastructure, building inclusive institutional bodies and reframing securitisation narratives. This chapter also reconceptualises EP as a politically engaged practical application toolkit challenging the literature that critiques EP's risk of depoliticising water conflicts.

To summarise, the findings presented in this dissertation demonstrate how Israel's hydro-hegemony is neither accidental or passive but a strategically upheld regime of control to further Israel's territorial dominance and constrain Palestine's standing. Furthermore, this hegemony is not irreversible but can be comprehensively challenged through a range of EP practises, proving that more equitable and sustainable models of governance over the JRB are possible.

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