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**ECOPEACE MIDDLE EAST AS AN EXAMPLE OF
ENVIRONMENTAL PEACEBUILDING: A CRITICAL
ASSESSMENT**

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APPROVAL PAGE



DECLARATION

I hereby declare that this master thesis titled as “Ecopeace Middle East as an Example of Environmental Peacebuilding: A Critical Assessment” has been written by myself in accordance with the academic rules and ethical conduct. I also declare that all materials benefited in this thesis consist of the mentioned resources in the reference list. I verify all these with my honour.

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03/06/2022

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ABSTRACT
Master's Thesis
Ecopeace Middle East as an Example of Environmental Peacebuilding: A
Critical Assessment
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Environmental peacebuilding as a newly emerging research field has received much scholarly attention since the end of the Cold War, as environment has been increasingly regarded as one of the areas for peace and cooperation. In this respect, scholars studying environmental security have sought to identify causal linkages between environment and peace, and argued that environmental issues, apart from being causes of conflicts, might also enhance peace and cooperation among the former conflicting parties.

Among natural resources water receives the greatest attention in the literature on environmental peacebuilding. Since water-related cooperative events outweigh water-related conflict events, researchers have shifted their attention to identifying water-peace causal linkages.

This thesis aims to contribute to this growing literature by critically evaluating EcoPeace Middle East's (a trilateral environmental non-government organization) Good Water Neighbors Project. It seeks to assess whether this project's environmental peacebuilding via transboundary water cooperation helps increase peace and equity or it just reproduces the status quo of unequal water distribution and power asymmetries among the parties.

Keywords: Environmental Peacebuilding, Middle East Peace Process, Transboundary Water Cooperation, Trust-building, Unequal Water Distribution, Power Asymmetries, Water Scarcity, Water Crisis.

ÖZET

Yüksek Lisans Tezi

Çevresel Barış İnşasına Bir Örnek Olarak Ecopeace Ortadoğu: Eleştirel Bir

Değerlendirme

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Uluslararası İlişkiler Programı

Yeni ortaya çıkan bir araştırma alanı olarak çevresel barış inşası, Soğuk Savaş'ın sona ermesinden sonra çevrenin giderek barış ve işbirliği alanlarından biri olarak görülmesi nedeniyle bilim adamlarından büyük ilgi görmeye başladı. Bu bağlamda, çevre güvenliğini inceleyen bilim adamları, çevre ve barış arasındaki nedensel bağlantıları belirlemeye çalışmış ve çevre sorunlarının, çatışma nedenleri olmanın yanı sıra, eski çatışan taraflar arasında barışı ve işbirliğini de geliştirebileceğini tartışmaktadır.

Doğal kaynaklar arasında su, çevre barışının inşası ile ilgili literatürde en büyük ilgiyi görmektedir. Suyla ilgili işbirlikçi olaylar suyla ilgili çatışma olaylarından daha ağır bastığından, araştırmacılar dikkatlerini su-barış nedensel bağlantılarını belirlemeye kaydırdılar.

Bu çalışma, EcoPeace Middle East'in (üç taraflı bir çevresel hükümet-dışı örgüt) İyi Su Komşuları Projesi'ni eleştirel olarak değerlendirerek gelişen bu literatüre katkıda bulunmayı amaçlamaktadır. Bu tez söz konusu projenin sınıraşan su işbirliğine dayanan çevresel barış inşası çabalarının barış ve eşitliği artırmaya yardımcı mı olduğunu veya sadece taraflar arasında eşit olmayan su dağılımı ve güç asimetrileri statükosunu yeniden mi ürettiğini değerlendirmeye çalışmaktadır.

Anahtar Kelimeler: Çevresel Barış İnşası, Orta Doğu Barış Süreci, Sınıraşan Su İşbirliği, Güven İnşası, Eşit Olmayan Su Dağılımı, Güç Asimetrileri, Su Kıtlığı, Su Krizi.



ECOPEACE MIDDLE EAST AS AN EXAMPLE OF ENVIRONMENTAL PEACEBUILDING: A CRITICAL ASSESSMENT

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ABBREVIATIONS

CSR	Corporate Social Responsibility
DOP	Declaration of Principles
EnPAx	Environmental Peacebuilding Association
EU	European Union
FAO	Food and Agriculture Organization
FOEME	Friends of the Earth Middle East
GAP	Güneydoğu Anadolu Projesi
GDP	Gross Domestic Product
GWN	Good Water Neighbors
IMF	International Monetary Fund
IPCC	Intergovernmental Panel on Climate Change
IR	International Relations
JWC	Joint Water Committee
MCM	Million Cubic Meters
MENA	Middle East and North Africa
NGO	Non-Governmental Organization
OSCE	Organization for Security and Co-operation in Europe
PA	Palestinian Authority
PLO	Palestinian Liberation Organization
PM	Prime Minister
PWA	Palestinian Water Authority
SADC	South African Development Community
SIDA	Swedish International Development Agency
SLUS	Sustainable Land-Use Systems
UN	United Nations
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
US	United States
USAID	United States Agency for International Development
WB	World Bank

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INTRODUCTION

The end of the Cold War changed scholarly interests from interstate security and war to human security, civil wars and post-conflict peacebuilding. Scholars have begun to search for novel ways of conflict prevention, resolution and transformation, and for peacebuilding mechanisms with the demise of the Soviet Union.

Environment was regarded as one of the promising areas for peace and cooperation. Thus, since the early 2000s, scholars studying environmental security have sought to identify causal linkages between environment and peace, and argued that environmental issues, apart from being causes of conflicts, might also enhance peace and cooperation among the former conflicting parties. For them, transboundary environmental problems can increase trust and dialogue; and they can create shared institutions and identity, thus ensuring sustainable peace among former rival states (Dresse et al., 2019: 99-100; Ide et al., 2021: 104).

Among the natural resources water receives the greatest attention in environmental peacebuilding literature. Wolf and his colleagues' extensive research underlined that water-related cooperative events (1228) far outweigh conflictual ones (507), and that water events are inclined more towards peaceful outcomes rather than conflict and tension (Wolf, 2004: 7; Wolf et al., 2006: 3). De Stefano et al. (2010: 871) underlined that cooperative water events are many more than conflict events even in the MENA region where intractable conflicts exist.

Since water-related cooperative events outweigh water-related conflict events, researchers have shifted their attention to looking for water-peace causal linkages (Kramer, 2008: 9). Scholars in this field indicate that water, being important for sanitation, drinking, agriculture, industry and so on, can facilitate human and economic development, and, therefore, if water is included in peace agreements, sustainable peacebuilding can be achieved (Link et al., 2016: 495-496; Swain, 2016: 1314-1316; Weinthal et al., 2011: 143).

Water crisis in the MENA region constitutes a great risk for the region's population since the MENA is the most water scarce region in the world. The average water availability per capita per year is 1,200 m³ in this region while globally this availability averages around 7,000 m³ per capita per year (Bozorg-Haddad et al., 2020:

86; Kibaroglu, 2016: 1). This scarcity is mainly exacerbated by the over-utilization of water resources, increasing population, inefficient water management and treatment, and climate changes' adverse effects.

The MENA lacks effective multilateral water management and riparian states compete with each other for more water: Israel, Jordan and Palestine have problems over the Jordan River Basin; Egypt and its neighbor riparian states over the Nile River; and Turkey, Syria and Iraq over the Euphrates and Tigris Rivers.

Powerful and upstream riparian states unilaterally manage water resources. Mutual suspicion and mistrust, historical conflicts, lack of environmental attention and strong institutions along with some other reasons hinder water cooperation in this region.

Although water cooperation is difficult to observe, thanks to the favorable political atmosphere in the early years of the 1990s, the Madrid Peace Process, co-chaired by the US President Bush and Soviet President Gorbachev, was initiated and parties to the Arab-Israeli conflict for the first time met to discuss several issues, including water-related ones (Abukhater, 2013: 88; Jägerskog, 2007: 196; Kibaroglu, 2016: 8).

Multilateral Working Group on Water Resources discussed options for technical water cooperation in the region and water rights issues were postponed to final peace talks (Jägerskog, 2007: 196). Israel, Palestine, Jordan, Lebanon, Egypt and Syria attended to these talks. However, multilateral negotiations remained inconclusive and bilateral talks ensued quickly (Brooks et al., 2020: 99)

Secret bilateral talks between Israel and Palestine brought about the Oslo Agreement in 1993 and 1995, while negotiations between Jordan and Israel resulted in the 1994 Peace Treaty (Kibaroglu, 2016: 8) Nevertheless, those bilateral agreements failed to increase water cooperation and peaceful relations among the three countries (Mukhar, 2006: 69-70). On the other hand, Syria and Lebanon as the riparian states in the Jordan River Basin rejected any cooperation with Israel, which further complicated the issue of water management in the region (Brooks et al., 2020: 73; Mukhar, 2006: 77). Political tensions following the peace process, especially between Israel and Palestine through the Second Intifada and the Gaza Wars, hampered any hope for peace and cooperation over the Jordan and Yarmouk Rivers and over several aquifers

and water resources (Zeevi, 2020: 3). Current situation mirrors unilateral Israeli water management and grievances of Palestine due to Israeli hydro-hegemony (Aggestam and Sundell-Eklund, 2014: 18; Messerschmid, 2012: 429; Reynolds, 2017: 712; Selby, 2013: 21).

Nonetheless, the Oslo Accords and the 1994 Jordan Peace Treaty instilled hope for the non-governmental organizations in the region, which started to assume the role of peacemaker following the failure of water diplomacy at state level. Since the failure of multilateral water negotiations in 1996, environmentalists and NGOs strive for stimulating cooperation among the populations of Palestine, Israel and Jordan: the most prominent examples are the Arava Institute for Environmental Studies, EcoPeace Middle East and Israel Palestine Center for Research and Information (Brooks et al., 2020: 46).

As a trilateral environmental NGO, EcoPeace Middle East was established on December 7, 1994 in Egypt. It has regional offices in the city of Ramallah, Palestine, Amman in Jordan and Tel Aviv in Israel. EcoPeace Middle East aims to enhance peace in the region by contributing to the strengthening of Palestinian, Jordanian and Israeli communities; it works for increasing dialogue, trust and understanding between the parties through enabling parties to find solutions to common environmental problems in the region; and it places education and common knowledge production at the heart of its projects (Harari and Roseman, 2008: 16).

This institution's most prominent project, Good Water Neighbors project, was introduced in 2001 when the Second Intifada was going on and the project was continued in spite of the political turmoil (Reynolds, 2017: 703). This project was developed to find joint solutions to problems over transboundary water resources by promoting cooperation among cross-border communities (Djernaes et al., 2015: 75). EcoPeace employs a bottom-up strategy as it works with youths and adults in communities to increase environmental awareness and cooperation, and to address the needs of local communities, while it also makes use of top-down strategies such as consulting mayors of three countries so as to receive their support for projects and cementing cooperative initiatives.

There are several case studies with regard to the EcoPeace Middle East and the Good Water Neighbors Project. Ide and Tubi (2020) analyzed the educational activities

of Good Water Neighbors Project and argued that GWN succeeded in building local peace among the participants with the help of environmental education. Harari and Roseman (2008) conducted an analysis on the GWN's environmental peacebuilding initiatives in Wadi Fukin/Tzur Hadassah communities and arrived at the conclusion that GWN was able to create shared norms, practices and values among the local communities. Djernaes et al. (2015) studied GWN project and claimed that this project enhanced understanding, trust and cross-border communications among the participating communities. On the other hand, Schilling et al. (2017), investigating the GWN initiative, arrived at the conclusion that this project had achieved limited success in increasing the resilience of the participating local communities against environmental problems and shocks. Ide (2017) examined the GWN project on the basis of spatial theory and discourse analysis, and concluded that social construction of space (as territory or place) is a crucial determinant or variable in environmental peacebuilding initiatives. Ide and Fröhlich (2015) made another research on the dominant GWN discourses of partner countries of EcoPeace, and found constructivist approaches and discourse analysis to be helpful and significant for the study of environmental peacebuilding.

Apart from these case studies, there are also some dissertations about EcoPeace and its GWN initiative. Kaufmann's thesis (2021) searched for the direct and indirect impacts of GWN's project on the parties' commitment to Article 6 of the 1994 Israel-Jordan Peace Treaty. The thesis revealed the need to include both bottom-up and top-down approaches, and local-international cooperation for successful transboundary cooperation. Light (2020) assessed the feasibility of transferring the EcoPeace's environmental peacebuilding standards to the International Centre for Integrated Mountain Development in the region of Hindu Kush Himalayas. Schierholz's thesis (2018) evaluated EcoPeace's cross-border environmental peacebuilding activities, concluding that this institution was successful to create a limited intergroup understanding and cooperation among local communities, despite the legal, political, psychological and physical obstacles. Carnevali's thesis (2021), on the other hand, analyzed the work of EcoPeace on the basis of communicative constructivism. She defended that the depoliticized environmental peacebuilding of EcoPeace helped

create new forms of water management and increased understanding and trust among the communities rather than reproduce the status quo in the region.

Barni (2010) analyzed the performance of GWN project in Sheikh Hussein community in the Lower Jordan River, critically evaluating the strengths and weaknesses of the GWN initiative in that specific region. The author concluded that the spillover effect did not occur and conflict resolution could only take place after the root causes of water conflict were resolved in the region. Shinkovskaia's thesis (2014) similarly assessed whether EcoPeace Middle East's GWN project led to spillover effects to solve political problems between Jordan, Israel and Palestine. The thesis highlighted the limits and obstacles for EcoPeace to conduct its peacebuilding initiatives in the region..

This thesis differs from the critical approaches of Barni's and Shinkovskaia's theses and other previous dissertations mainly on the ground that it looks into EcoPeace Middle East's Good Water Neighbors Project with a critical manner through the lens of political ecology which asserts that political issues should be included in environmental cooperation for more effective, equal and symmetrical peacebuilding. Although Barni's and Shinkovskaia's theses also approach the GWN project from critical angle, they do not pay attention to the inclusion of water rights, international law or power asymmetries, like this thesis does, in order to promote better cooperation outcomes for weaker parties. Moreover, this thesis analyzes briefly whether conditions for successful environmental peacebuilding exist or not in the related context.

There exist several gaps in environmental peacebuilding literature. Waisova (2015: 93) argues that there is a need for critical evaluation of environmental peacebuilding initiatives. Ide (2019: 7) claims that depoliticization as one of the side effects of environmental peacebuilding should receive more attention. Ide (2017: 555) argues that environmental peacebuilding initiatives like GWN should be studied from a critical perspective. Jägerskog (2018: 216-217) suggests that environmental peacebuilding studies should benefit more from the perspectives and approaches of realism and social constructivism. Aggestam (2015: 337) advises critical studies on technocratic peacebuilding which prioritizes technical solutions and neglects political

problems. This thesis aims to contribute to that growing critical literature on environmental peacebuilding.

The thesis brings forward two research questions: Does EcoPeace Middle East's Good Water Neighbors Project increase peace and equity via transboundary water cooperation? Or does it reproduce the status quo of unequal water distribution and power asymmetries among Israel, Palestine and Jordan?

This thesis is particularly juxtaposed against the argument put forward by Carnevali (2021) that depoliticization does not reproduce the status quo but increases trust and understanding among the respective communities. Contrary to Carnevali's argument, it asserts that depoliticized and technical water cooperation reproduces and reinforces the status quo of unequal water distribution and power asymmetries between the parties of EcoPeace Middle East.

Although they contribute to increasing trust and understanding among participants who are already predisposed to peace, GWN projects do not receive broad public support and the number of participants does not reach to thousands but rather are limited to a group of activists and some families; and small numbers of participants are not able to change the perceptions of the majority (Reynolds, 2017: 709).

Moreover, depoliticized water cooperation seems problematic since it ignores water rights and unequal water allocation between the parties, and thus, reinforces the status quo rather than solve the problems (Aggestam, 2015: 337; Jägerskog, 2018: 215). This technical water cooperation among Israel, Jordan and Palestine precludes peacemakers to address structural inequalities, while eschewing rights-based political water management indicates the acceptance of the status quo in the region by peacebuilding actors (Aggestam and Sundell-Eklund, 2014: 18).

Peacebuilding projects after the 1993 Oslo Accords have not addressed inequalities such as Israel's prevention of Palestine from developing its own water infrastructure in the West Bank, while people-to-people initiatives employ technical water cooperation preferred by Israel, which seeks to increase water supply and ameliorate environmental conditions in apolitical and scientific ways (Jägerskog, 2018: 215).

Education activities of EcoPeace are prioritized in its every project, but educating people within the context of structural inequalities might reproduce the

status quo rather than creating positive impacts on peacebuilding initiatives (Davies, 2010: 492).

Water in the Middle East is highly securitized and political and, thus contrary to the neo-functionalists' expectations, water cooperation does not spill over other spheres. Rather, even though technical cooperation is maintained in the region, Israel holds its hegemonic control over water resources; it rejects to leave the control of water resources to Palestine due to security considerations; it does not work for completing Israel-Jordan water projects agreed in the 1994 Peace Treaty; and it successfully sells its technical water cooperation discourse to the international donors and NGOs. Through all that the status quo is maintained by Israel.

Israel utilizes around 85 percent of water resources, while Palestine has circa 15 percent (Kramer, 2008: 13) and, overall, Israel has access to water seven times more than Palestine (2100 MCM/year for Israel and 300 MCM/year for Palestine). All these figures indicate the severity of inequity between the parties (Zeitoun, 2008: 14).

On the other hand, Israel reduces Jordan's water extraction from the Jordan River to 30 MCM/year, while it utilizes specified amount of water from the Yarmouk River, and it does not supply Jordan with an additional 50 MCM/year (Talozi et al., 2019: 916-917). Water projects between Jordan and Israel are not completed yet, which prevent procuring more amount of water for Jordan, which results in political tension with Israel; and these incomplete projects together with Jordanian demand for a resolution of the Israel-Palestine water conflict constitute the main Jordanian water interests (Haddadin, 2011: 184; Sánchez, 2019: 3; Zeevi, 2020: 3).

In addition to these inequities, Israel is able to desalinate and treat wastewater, and import water-intensive foods thanks to its power asymmetries in economic, technologic and military spheres, while Jordan and Palestine do not have advanced water infrastructure and symmetrical power with Israel in any terms (Fischhlendler, 2008: 104-106; Kramer, 2008: 106; Talozi et al., 2019: 918).

This enables Israel to dictate its interests in every negotiation and agreements, and technical peacebuilding, official or unofficial, does not challenge and reverse this hegemonic and unequal situation.

First chapter introduces the newly emerging field of environmental peacebuilding, the theoretical background of the thesis, putting forward its definition,

conditions for its success, its outcomes, critics of this field and suggestions for future studies, with a view to better evaluating GWN's peacebuilding initiative.

Second chapter explains both the water-peace nexus, together with the conditions for successful water cooperation, and the critics of this nexus. Then, it explains the water crisis and scarcity in the MENA region so as to show the severity of current environmental situation in the region. The chapter highlights the Arab-Israeli and Israeli-Palestinian conflicts in order to explain why cooperative initiatives in this region are scarce. The chapter concludes with demonstrating the failed multilateral and bilateral water-related cooperation among the Jordan River Basin's partners.

Third chapter starts with the introduction of EcoPeace Middle East and its projects, including the main focus of analysis, Good Water Neighbors project, describing its limited success and achievements in the region. Then, the needs-based (depoliticized) and rights-based water discourses, strategies and positions of the parties are elaborated. This analysis investigates whether conditions for successful environmental peacebuilding exist in the case of EcoPeace's Good Water Neighbors project. Finally, how the depoliticized environmental peacebuilding of EcoPeace reproduces the status quo is critically assessed in the light of perspectives from social constructivism and political ecology.

The final part explains the results of the analysis and discusses the findings together with suggestions for EcoPeace, policymakers, peacemakers and environmental peacebuilding literature.

CHAPTER ONE

ENVIRONMENTAL PEACEBUILDING AND ITS CRITICS

1.1. INTRODUCTION

The end of the First World War prompted scholars to examine the causes of war and the conditions of peace in order to prevent another world war, and this scholarly interest resulted in the establishment of the discipline of International Relations (IR), along with the institutionalization of peace, conflict and security studies. However, with the end of the Cold War the scholarly interests have shifted from interstate security and war to human security, civil wars and post-conflict peacebuilding. Scholars have begun to look for novel ways of conflict resolution, prevention and transformation, and for peacebuilding mechanisms with the demise of the Soviet Union.

In this regard, environment, which had already turned into a major issue-area of international politics particularly in the last decade of the 20th century, has started to attract the attention of researchers in relation to peace and conflict studies in the 21st century. Initially, scholars analyzed the links between environmental problems and conflict, and argued that proper management of environmental resources might prevent conflict relapse in post-conflict states, resulting in the absence of violence.

However, since the early 2000s, the deterministic and unidirectional environment-conflict nexus has been criticized by those seeking causal linkages between environment and peace (Ide et al., 2021a: 2). Those scholars looked into environmental issues with a view to enhancing peace and transforming conflict into cooperation. Thus, environmental peacebuilding has emerged with this scholarly focus arguing that transboundary environmental problems can transform rivalry to partnership, increase trust and dialogue, and bring mutual gains to both sides (Dresse et al., 2019: 103). Environmental cooperation can create shared identity and institutions, and enable sustainable peace between former rivals. Environment is regarded as a suitable entry point for negotiation, since environmental threats are seen as low politics issues pushing conflicting parties to cooperate on common concerns (Hardt and Scheffran, 2019: 9).

In this context, this chapter aims to illustrate and explain the newly emerging research field of environmental peacebuilding that constitutes the theoretical background of this thesis. In the first part, a review of the literature on environmental peacebuilding is made; the second part incorporates environment-conflict and climate-conflict approaches so as to highlight the evolution of this research field. Then, the third part clarifies the emergence and spread of environmental peacebuilding, including its definition, methods, conditions, benefits and outcomes on the basis of existing studies in this field. The following part elaborates on the critics, shortcomings and side effects of environmental peacebuilding, while the final part makes suggestions for future research for this relatively new but promising field.

1.2. LITERATURE REVIEW

Environmental problems have been regarded as triggers or causes of violent conflicts and civil wars within states. In this vein, since the 1990s, Baechler (1999), Collier and Hoeffler (2012), De Soysa (2006), Dalby (2002) and Homer-Dixon (1999) sought to find causal links between environment and conflict, and to examine whether resource scarcity or abundance caused conflict and tension. This literature mainly focused on environment-conflict nexus, and precedes the literature which claims that environmental resources can induce and stimulate cooperation and peace.

Initially environmental security researchers argued that natural resources may catalyze conflict and they worked on the impacts of those resources as triggers of civil wars. The research on the possibility of rebel groups' utilization of natural resources to wage these wars, along with the greed vs grievance debate, has shown that raw materials' or primary commodities' sales can be attractive for rebels to capture state control (Collier and Hoeffler, 2004: 587-589; Ross, 2004: 49-61).

The following research looked into the opposite direction and examined how environment-related activities may play a crucial role to prevent conflicts. Through different case studies it has been suggested that the existence of transboundary conservation areas; well-prepared international treaties on rivers; inclusion of land reforms into peace treaties; providing environmental training and support to former combatants in order to rehabilitate and integrate them to the society; and natural

disasters as psychological factor all show that natural resources can help decrease the possibilities of violent conflicts' occurrence and recurrence (Barquet et al., 2014: 6-10; Blattmann and Annan, 2016: 8-16; Ide, 2021: 14-15; Keels and Mason, 2019: 55-58; Mitchell and Zawahri, 2015: 194-199; Slettabak, 2012: 172-175;).

On the other hand, since 2007, Dyer (2009), Welzer (2012), Zhang et al., (2007), Barnett and Adger (2007), Barnett (2007), Buhaug (2016), Bazirake (2013) and Smith and Vivekanda (2007) have begun to draw attention to climate-conflict nexus with a view to examining causal linkages between climate change and conflict. Their analysis indicates that climate change affects human security through its impact on economic and social conditions and can trigger violent conflict and migration; they also illustrate how military activities affect climate change; or how vulnerability to climate change enhances the possibility of conflict. McDonald (2013) and Scheffran et al., (2012) allege that rising temperatures and sea levels along with decreasing rainfalls increase the possibility of conflict and terrorism within states, urging the tackling of adverse effects of climate change.

However, since the early 2000s, environment-peace approach challenging the unidirectional and deterministic environment-conflict nexus have started to look into the possible causal mechanisms between environmental problems and peace. The former approach has been analyzed whether environmental problems can pave the way for transboundary cooperation, interdependence, shared identity and sustainable peace between former adversaries by Brauch (2009), Hagmann (2005), Harari and Roseman, (2008), Wolf (2007), Conca and Dabelko (2002), Dresse et al., (2016), Kyrou (2007), Brauch et al., (2016), Scheffran (2016) and Weinthal and Johnson (2018). Ali (2007), Ali (2011) and Lejano (2006) examined the causal links between peace and peace parks, and argued that integrated or coordinated management of cross-boundary ecosystems and protected areas can act as a buffer zone between adversaries, reducing the risk of conflict and also possibly paving the way for cooperation and trust building. Kelman (2006), seeking to find linkages between disasters and peace, claimed that managing and preparing for disasters as well as reconstruction after these incidents can lead to functional cooperation, and that disasters might build empathy and solidarity with the affected countries. Kyrou (2007) purported to find causal linkages between ecology and peace by utilizing positivist, critical and constructivist approaches. Jensen

and Kron (2018) analyzed the UN environmental peacebuilding activities, presenting the lessons learned and suggesting a possible future role for the UN in this field. Ide and Tubi (2020) searched for the role of education in environmental peacebuilding by analyzing three projects in Israel and Palestine, and concluded that trust and understanding among participants increased through those projects and they agreed to work together in order to improve the environmental situation. Ide (2017) put attention on discourse and spatial theory, and examined the relevance of social construction of place, boundaries and space for applications and outcomes of environmental peacebuilding. Ide et al. (2021a) claim that most of the literature on environmental peacebuilding illustrates the external peacebuilding initiatives, which often operate on the basis of democracy and market economy principles, while endogenous environmental peacebuilding practices do not have many examples in the field. In the same vein, critical peace scholars reject top-down peacebuilding and argue for the inclusion of local agency and bottom-up approaches to show that identities, perceptions and interests can change across time, space and culture. MacGinty and Richmond (2013), MacGinty (2015), Richmond (2009) and Wessels (2015) ask for paying attention to internal divisions and heterogeneity, thereby arguing for hybrid or local peacebuilding.

Although the bulk of the literature on environmental peacebuilding focuses on interstate level, the research on intrastate level has started to increase (Dresse et al., 2019: 103). Very recently, three authors have examined 79 intrastate environmental peacebuilding initiatives to find causal linkages between natural resource management and peace. Their findings are such that initiatives, which improve political inclusion and equity as well as livelihoods of the population, enhance peace, while initiatives that decrease state legitimacy, social cohesion and distributive justice reduce the possibility of peace (Johnson et al., 2021: 1). Morales-Munoz et al. (2021) have analyzed and assessed the impact of the SLUS projects on environmental peacebuilding in Colombia by deploying transitional justice, socio-economic inclusion, peace culture, security and governance approaches, and suggested more inclusion of local perspectives, more attention to actors' different perceptions and interests, and more importance to be given to power relations among all stakeholders. As another recent example, Dresse et al. (2021) have investigated whether bauxite

mining companies through their engagement with Corporate Social Responsibility (CSR) and Social License to Operate (SLO) contribute to environmental peacebuilding in Guinea by searching linkages between resource abundance and peace. Johnson (2021) has scrutinized the peacebuilding practice in Afghanistan where locals try to improve the environmental conditions of the protected areas. He concluded that while cooperation and trust have increased among the Afghans, the confidence felt towards the Afghan state has declined due to its inability provide basic public services such as security via police and military forces, education and healthcare. Song and Hastings (2020) illustrated the progress made by the North Korea and the South Korea in inter-Korean forestry cooperation thanks to the North's desire for cooperation in environment sphere and the South's utilization of NGOs in talks with North Korea. Ankenbrand et al. (2021) have searched for the causality between the formalization of artisanal and small-scale mining in Sierra Leone and Liberia, and sustainable peace by analyzing the impacts of formalization on the livelihoods of these two states. Kalilou (2021) has examined the role of acacia gum tree for peace in the Sahel and concluded that community cooperation with states and NGOs increase the likelihood of social inclusion, poverty reduction and environmental improvements.

After having briefly reviewed the literature on environment and peacebuilding, I now would like to look at the environment-climate-conflict nexus in more detail below to show the evolution of the research field.

1.3. ENVIRONMENT-CLIMATE-CONFLICT NEXUS

Scholars' attention on the environmental dimensions of conflicts dates back to the 1970s (Hardt and Scheffran, 2019: 4). However, the linkage between environment-conflict and the environment's possible role in conflicts were put forward by the UN's Brundtland Report "Our Common Future" as early as in 1987 (Dresse et al., 2019: 99; Dresse et al., 2016: 4).

Initially, during the final years of the Cold War, researchers tried to find causal links between state/military security and resource abundance or scarcity. This resource risk perspective sought to prevent conflict relapse via environmental cooperation mostly in post-conflict societies where the probability of intra-state conflicts was high

(Krampe et al., 2021: 2-4). The main aim was to reduce environmental risks so as to achieve the absence of violence, because the mismanagement of natural resources was alleged to trigger nearly 40% of all violent disputes (Krampe et al., 2021: 3-4). Since this stream of research coincided with the Cold War, military forces' and wars' adverse impacts on the environment were also discussed, including the concerns about nuclear arms race and nuclear war (Hardt and Scheffran, 2019: 4).

Second stream of environment-conflict nexus emerged in the mid-1990s which paid greater attention to human security and development related to environmental problems.

Globally, the United Nations Environment Programme under the leadership of Klaus Töpfer included the management of natural resources to the agenda of post-conflict peacebuilding in order to prevent conflict relapses due to resource scarcity within states.

Academically, Toronto School's leading author Homer-Dixon examined resource scarcities' negative effects on societies, including migration and worsening of economic conditions, and he insisted that scarcities can decrease or weaken the legitimacy of state. Homer-Dixon (1994)'s research on environmental scarcity and conflict nexus also found that environmental scarcity might contribute to sub-national low-intensity violence rather than inter-state violent conflict. On the other hand, Baechler (1998), leading Zurich School and working on environmental degradation and violent conflict linkages, indicated that conflicts are multi-faceted and include also socio-political factors such as unequal access to resources. Other researchers unpacked how environmental changes at local, regional and global levels can affect development, and they focused on societies' vulnerabilities to these changes (Hardt and Scheffran, 2019: 5-6). In short, second stream research deployed human security and development studies' perspectives while searching for causality between environment and conflict.

Third wave of research in environment-conflict nexus took shape after the announcement of the 4th Intergovernmental Panel on Climate Change (IPCC) Report in 2007, and the field witnessed a shift to the climate-conflict nexus due to the strong scientific evidence of severe global climate change and the increasing necessity to mitigate these changes. Hardt and Scheffran stated that "[i]n this context, climate

change and its environmental effects are presented as either triggers, stress multipliers or causes of conflicts and risks” (p. 6).

Rising temperatures and sea levels, increasing natural disasters and reducing rainfalls are said to increase the possibility of violent conflict and terrorism within states. For researchers, changing climate conditions could increase migration and resource scarcity, and worsen economic conditions, which, in turn, might lead to violent conflict. In this regard, not only scholars but also NGOs and decision-makers have been increasingly involved in seeking to find ways to reduce climate change’s adverse effects in order to prevent conflict eruption within states.

However, both environment-conflict and climate-conflict nexus have received several criticisms. The main criticism is that causality and correlation between environment, climate and conflict has not been put forward precisely, while biased sampling and overestimation exist in the research of that nexus (Hardt and Scheffran, 2019: 7-13).

This conflict-prone research is also criticized due to their unidirectional and deterministic claims for environment/climate and conflict causality, and their exclusion of the possibility of cooperation, which can be born out of environmental problems and climate change. Furthermore, it is asserted that resource risk perspective securitizes the natural resources and risk of conflict, and thus occludes the possibility of natural resource management’s contribution to peace (Krampe, 2017: 5; Krampe et al., 2021: 4).

After all these criticisms, researchers have turned their attention to another possibility, the linkage between environment and peace, examining whether environmental problems can increase peace and cooperation between rival states. This environment-peace nexus and what it incorporates will be explained in the next chapter along with the criticisms and suggestions for future research.

1.4. ENVIRONMENT-PEACE NEXUS: ENVIRONMENTAL PEACEBUILDING

Although several states aimed to benefit from environmental resources for building peaceful relations in the 1980s, e.g., through the picnic table talks between

Israel and Jordan or Trifino Plan in Central America, the environment-peace nexus started to take shape in the 1990s and spread to the academia in the early 2000s as the researchers have shown interest in alternative conflict resolution and peacebuilding mechanisms as means of enhancing peace and cooperation between conflicting states.

The UN document of 1992 Agenda for Peace constituted in particular a shift from environment-conflict to peace research, resulting in the growing of the literature on environmental peacebuilding. Scholars claimed that utilising environmental issues in post-conflict peacebuilding practices could increase sustainable development and peace (Krampe et. al., 2021: 5). They stressed the probability of positive peace along with environmental cooperation, rendering conflict unimaginable and enabling non-violent resolution of disputes (Dresse et. al., 2016: 10). Environmental problems have been seen as suitable entry points for cooperation and peace due to the fact that they are regarded as common challenges, low politics issues and viable to solution via positive-sum cooperation (Ide, 2019: 3).

At the international institutional level, the United Nations Environment Programme (UNEP) has played a crucial role to integrate environmental cooperation into peacebuilding and conflict resolution activities. The UN General-Secretary Kofi Annan's talk at the World Day for Water 2002 was significant as he prompted the international community to focus on the positive aspects of environmental problems (Harari and Roseman, 2008: 7). Moreover, the creation of the Environment and Security Initiative (ENVSEC) with the partnership of the UNEP, UNDP and OSCE have supported governments, NGOs and experts to increase transboundary environmental cooperation with a view to peace and security.

Specifically, the scholarly attention on the possible causal links between environment and peace increased when Aaron T. Wolf showed that water-related events (1,831 cases) on trans-boundary river basins resulted more in cooperation (67,07%) than in conflict (27,69%) (Wolf, 2004: 7; Dresse et. al., 2016: 8).

Similar to conflict-environment nexus, environment-peace nexus has also different streams. The first stream of environmental peacebuilding focused mainly on transboundary conservation of natural resources (e.g., peace parks) and transboundary water issues in order to show their potentials for conflict resolution, trust and confidence-building (Ide, 2021: 8-9). They have indicated that environmental

cooperation requires long-term actions; environmental cooperation should not have political boundaries; and all levels of society including the locals must be taken into account while analyzing and solving environmental problems. However, the first stream of environment-peace nexus investigated generally inter-state level cooperation, bypassing intra-state peacebuilding practices.

The second stream of environment-peace research gave particular attention to climate change and its utilization for cooperative solutions in post-conflict settings. This shift to climate change-peace nexus took place around the 4th Assessment Report of the Intergovernmental Cooperation on Climate Change, and the UN Security Council discussions on climate change and its security implications.

Scholars have suggested that cooperation is necessary to mitigate climate change less it leads to conflict. Others have claimed that vulnerable societies and states are not able to mitigate climate changes' effects and they should be assisted in order to become resilient against climate change, which in turn supports peacebuilding practices in general (Hardt and Scheffran, 2019: 8-9).

The second stream of research put more attention on intra-state environmental cooperation and scholars conducted field studies benefiting from participants' observation and ethnography, resulting in a growing body of literature with new perspectives like resilience, energy, and education, along with legal, discursive and spatial dimensions of environmental peacebuilding (Ide, 2021: 9).

The third stream of environment-peace nexus has made environmental peacebuilding a more interdisciplinary and integrative research field. Increasing numbers of scholars have considered the views and insights of other disciplines, including economics, sociology, law, political science, and geography in order to improve and evaluate their studies. In this regard, the foundation of the Environmental Peacebuilding Association (EnPAx) as an interdisciplinary forum in 2018 has helped the development and consolidation of environmental peacebuilding as a separate field through raising awareness, capacity building and integrating the views of other fields. Furthermore, scholars have begun to give more consideration to practices of environmental peacebuilding by receiving feedbacks from and suggesting policies to practitioners on the field.

This current stream gives much more attention to bottom-up environmental peacebuilding practices, human security and development as well as gender, education, discourse and space, conflict-sensitive programming, and frontier and data technologies in order to increase the effectiveness and contributions of the field (Ide et. al., 2021: 9-16).

1.5. ENVIRONMENTAL PEACEBUILDING IN DETAIL

Peacebuilding, peacemaking and peacekeeping concepts were originally put forward by Galtung (1976). While peacekeeping intends to maintain ceasefire between conflicting parties, peacemaking aims to de-escalate and prevent recurrence of conflicts via political, diplomatic and military means. However, peacebuilding refers to more inclusive and comprehensive activities for achieving sustainable peace and non-violent conflict resolution between former adversaries. Peacebuilding activities can include concerns to address roots of conflicts, disarmament, former combatants' inclusion to societies, support to increase state institutions' capacities and prevent human rights abuses, and improving the conditions of livelihoods (Dresse et al., 2016: 5).

Peace in this field ranges from the absence of violence, namely negative peace, to the unimaginability of using force or positive peace, which enables actors to solve their problems in non-violent ways (Galtung, 1996: 30-31). Thus, environmental peacebuilding accepts that conflict and cooperation can co-exist but states will solve their problems peacefully thanks to increasing cooperation and integration between them.

Environment-peace nexus and environmental peacemaking concept have been firstly mentioned by Conca and Dabelko (2002) to indicate the possibility of environmental cooperation to increase peace between former adversaries. Since then, the literature on environment-peace nexus has flourished, with scholars defending that environmental issues could transform conflicts into cooperation thanks to their low-politics and win-win nature, and their perception as threats that require cooperative solutions.

However, it is crucial to show the difference between environmental peacemaking and peacebuilding in order to prevent misunderstandings of the concepts. While environmental peacemaking refers to several measures to de-escalate and prevent conflict between or within states in order to achieve the absence of violence, environmental peacebuilding seeks to achieve sustainable peace through environmental cooperation and non-violent conflict resolution between former conflicting parties. Although Conca and Dabelko have used the term 'environmental peacemaking' in the initial period of the literature, they also refer to environmental peacebuilding and the environment's role in catalyzing cooperation and peace.

Even though environmental peacebuilding as a field has several descriptions, this paper uses the field description of Maas et al. (2013) due to its inclusive and comprehensive nature. In this regard, they argue that:

“Environmental peacebuilding is neither a coherent theoretical school nor a concrete and distinct set of practical activities. Instead, it should be considered as an umbrella term that covers a wide range of aspects, which are united by their focus on the relationship between environment, conflict and peace” (p. 103).

Environmental peacebuilding encompasses management of natural resources in order to prevent, mitigate and resolve conflicts and to conduct post-conflict peacebuilding between and within states. It aims to prevent escalation of violence in the pre-conflict period; if conflict exists, it works to achieve transition to peace; and when conflict ends, it strives for securing sustainable peace (Dresse et al., 2016: 9-12).

Several authors mention about importance, benefits and contributions of and conditions for environmental peacebuilding. They show the importance of including environment to peacebuilding activities in order to ensure sustainable peace; they claim that growing natural resource scarcity endangering the livelihoods of populations make durable peace increasingly difficult particularly in post-conflict societies; and for this reason, they argue for prioritizing proper natural resource management in such societies (Swain and Öjendal, 2018: 8-10).

Other scholars claim that environmental cooperation creates a habit of cooperation and enhances trust between former rivals through repeated interactions. Advanced cooperation might decrease inequitable resource access and distribution, paving the way for durable peace. For them, technical cooperation enables conflicting

parties to reduce environmental problems in a neutral way with limited contestation; on societal level, environmental peacebuilding enables actors to understand each other's past grievances and accept the other side as a legitimate actor, thereby removing stereotypes to have positive interactions. Also, dealing with root causes of conflicts and negotiating for equitable resource distribution might lead conflicting parties to take the step for sustainable environmental peacebuilding (Dresse et al., 2019: 110).

Ide asserts that symbolic rapprochement increases trust, construct positive perceptions of the other and build collective identity; with the establishment of joint institutions that address injustices, conflicting parties might achieve substantial integration; and environmental cooperation might increase individuals' opportunities and freedoms to better sustain their livelihoods, exercise their rights and get adapted to environmental changes (Ide, 2021: 11-12).

Several scholars show three mechanisms through which environmental cooperation might increase peace: the contact hypothesis is about decreasing prejudice and bias via cooperation; diffusion of transnational norms enhances human empowerment and empowers civil society; and the provision of public services increases the population's trust in the state (Krampe et. al., 2021: 5-7).

In sum, environmental cooperation may lead to peace if parties can avoid conflicts related to natural resources; if trust, interdependence and understanding can be built; if joint institutions can be established; if root causes of conflicts are addressed; and if genuine efforts are made to improve human livelihoods, social and political rights, and enable people's adaptation to environmental changes. However, forms of peace and cooperation do not always happen consecutively as seen, for instance, in the symbolic rapprochement between the parties in the Jordan River during their water cooperation before the absence of violent conflict (Ide, 2021: 8).

Moreover, while explaining how environmental peacebuilding contributes to peace, researchers benefit from different disciplines and theories. Sociologically, common environmental problems are identified to create shared empathy and vulnerability among conflicting parties, while cooperation and interaction are said to enhance trust and understanding (Ide et. al., 2018: 178).

In terms of neoliberal institutionalism, ecological interdependence and mutual environmental problems increase the possibility of win-win and positive sum cooperation for both sides to derive material gains (Ide et al., 2018: 178).

Neo-functional approach shows the possibility that cooperation in environmental sphere can spill over to other spheres, especially to political level, or that conflicting parties might find additional issues to include in their environmental cooperation (Ide and Detges, 2018: 65; Swain, 2016: 1315).

Two scholars relate the central element of social learning approach, namely the communicative action, to environmental peacebuilding by arguing that rival societies try to find collective solutions to common environmental problems through continuous dialogue and cooperation. They argue that trust building and positive changes in perceptions and attitudes of both sides lead to social networks as well as increase social capital among former rivals (Harari and Roseman, 2008: 14-15).

On the other hand, several researchers present several conditions for environmental peacebuilding to become more efficient and successful. Some researchers put forward that local commitment and ownership, absence of recent violence, stability of internal political conditions, support by high-level political elites, sufficient institutionalization, high environmental mindfulness, already existing networks and environmental cooperation, and international funding and mediation all play crucial roles for the success of environmental peacebuilding along with other contextual factors (Weinthal et al., 2011: 149-150; Wolf, 2004: 23-24; Kramer, 2008: 9-10; Swain, 2016: 1319-1320).

Another scholar adds that decision-makers and stakeholders from all levels of society, including policymakers at state level, local communities at grassroots level and international actors at global level need to be part of the process so as to reach successful outcomes (Lederach, 1997: 60).

The literature overall suggests that impartial mediation and funding by international actors, willingness of local actors to be part of environmental peacebuilding, and the support of political elites to utilize environmental issues to increase peace with the other side matter for the successful outcomes of environmental peacebuilding.

This relatively new literature has also received several criticisms from various scholars. The next part elaborates on the critical perspectives on environmental peacebuilding so as to show its shortcomings and limits.

1.6. CRITICS OF ENVIRONMENTAL PEACEBUILDING

The main criticism towards environmental peacebuilding is that causal linkages between environment and peace have not been found yet. In other words, environmental peacebuilding is not seen as a theoretical framework in itself; it is regarded as just embodying several suggested interrelationships between conflict, peace and environment (Dresse et al., 2019: 104-105; Waisová, 2015: 97).

It is difficult to conduct comparative studies in this field since multiple actors, contexts and causal mechanisms render theory formation and generalizations nearly impossible. Definitions of environment, peace and cooperation vary, and they are interpreted differently by sociologists, economists and political scientists. Thus, different meanings attributed to concepts and terms obstruct the verification of causal links between environment and peace (Hardt and Scheffran, 2019: 11-12; Waisová, 2015: 97-99; Dresse et al., 2016: 11).

It is still unclear which phase of conflict (e.g., pre-conflict or post-conflict) is more appropriate for conducting environmental peacebuilding; which actors must be involved; and which methods and mechanisms can be selected. In this vein, Waisová (2015) puts forward that “[b]ecause each stage of conflict requires a different approach, we cannot draw any conclusions about environmental cooperation as a general tool for conflict transformation” (p. 106).

Researchers do not differentiate between types of conflict, cooperation and actors, and fail to examine whether these factors facilitate or make environmental peacebuilding difficult. They ignore motivations, interests and influences of actors practicing environmental peacebuilding, while they do not also analyze whether roots of conflicts affect conflict transformation potential of environmental peacebuilding.

Many studies in this field do not examine the root causes of climate change or pay attention to major polluters of environment in peaceful regions (Hardt and Scheffran, 2019: 12).

Some scholars criticize environmental peacebuilding on the ground that it is used as a means to attract international funds and support (Aggestam, 2015: 336; Dresse et. al., 2019: 101).

On the other hand, environmental peacebuilding literature mostly focuses on inter-state relations and does not scrutinize internal divisions and heterogeneities within states, although many conflicts and post-conflict peacebuilding practices occur at intra-state level (Krampe et al., 2021: 4). Therefore, methods and mechanisms utilized for inter-state level environmental peacebuilding should be modified in line with the needs of intra-state peacebuilding and, if necessary, new techniques should be developed.

Bottom-up approaches and interests do not receive much attention in environmental peacebuilding initiatives (Ide et al., 2021b: 105). However, the lack of adequate studies on bottom-up approaches reduces the explanatory power of environment-peace nexus. Therefore, some researchers turn their focus on local or hybrid peacebuilding in order to enhance explanatory power of environmental peacebuilding by examining how local or hybrid peacebuilding prevents or facilitates environmental cooperation.

Literature on environmental peacebuilding is mainly based on a positivist-rationalist ontology, failing to examine both the social construction of space (i.e., ecological and hydrological borders are constructed by people's social interactions) as well as non-Western approaches and worldviews which might contribute to environment-peace nexus (Ide, 2019: 12-13). While criticizing mainstream environmental peacebuilding, Tobias Ide shows that space should not be seen as an exogenous variable since it is constructed continuously and thus, might affect environmental peacebuilding (Ide, 2017: 554-555). Besides, positivist-rationalist ontology also fails to explain supernatural, spiritual and ancestral local peacebuilding practices such as practices of 'tara bandu' in Timor Leste (Ide, 2019: 13).

Ide (2020: 3-5) points to six adverse effects of environmental peacebuilding in order to increase the efficiency and benefits of environment-peace nexus. Depoliticization as an adverse effect, is utilized in this thesis to conduct critical analysis, explained together with political ecology below in this chapter.

First adverse effect of environmental peacebuilding, Ide argues, is displacement. This might happen when natural resource management displaces people from their lands without their consent or giving them adequate compensation.

Second adverse effect is discrimination. This may occur on the basis of gender, social and ethnic status, because environmental cooperation may benefit some while excluding others, which, in turn, is related to political ecology which claims that environmental peacebuilding usually reproduces societal inequalities and divisions.

Sometimes environmental peacebuilding practices might exacerbate existing conflicts rather than produce de-escalation due to other adverse effects such as displacement or discrimination. Thus, deterioration of conflict is regarded as the third adverse effect.

Environmental peacebuilding, for Ide, might also delegitimize state. This can occur if state has a role in adverse effects of environmental peacebuilding or if environmental peacebuilding is solely conducted by external actors, making state seem as incapable and non-eligible for providing services and welfare to its citizens.

Finally, environmental peacebuilding might contribute to environmental degradation rather than mitigate or reduce environmental problems. This can happen, for example, if environmental cooperation results in resource exploitation for economic and political gains that may lead to an unsustainable order in environmental terms.

Behind many of these criticisms lie the liberal nature of current environmental peacebuilding practices. Since the end of the Cold War (1990s), instances of intra-state conflicts and wars increased mostly within failed and collapsed states. Within this context, international actors, especially the US, UN and the World Bank sought to transform these failed states into liberal and democratic state entities through universal, and standardised Western norms and values (Aggestam, 2015: 333; Aggestam and Sundell-Eklund, 2014: 13). This liberal peacebuilding rationality has dominated and still dominates conflict prevention, mitigation and resolution, and peacebuilding initiatives worldwide (Swain, 2016: 1316; Aggestam and Sundell-Eklund, 2014: 13).

Environmental peacebuilding also operates generally in accordance with the principles of liberal peacebuilding, including liberal democracy and market economy,

and is implemented by the strong involvement of external actors (Ide et al., 2021b: 105).

Liberal peacebuilding's rationale underlines that liberal countries are more peaceful than authoritarian states; its democratic peace theory asserts that strong democracies do not wage war with each other thanks to institutional limitations on statesmen; and as liberal states' economic interdependence and their regional cooperation increase, so do their peace and prosperity (Aggestam and Sundell-Eklund, 2014: 13). In accordance with its ultimate aim of bringing about an open market economy and a liberal state with checks and balances, liberal peacebuilding paradigm prioritizes the provision of free elections, separation of powers, rule of law, and consolidation of civil society and human rights (Auteserre, 2017: 123). International peacebuilding actors apply standard norms which, for them, can be applied universally in all contexts and are rational, technical and scientific, namely apolitical (Aggestam, 2015: 333; Aggestam and Sundell-Eklund, 2014: 13; Swain, 2016: 1320).

Nevertheless, liberal peacebuilding received many criticisms. It is criticized for not promoting local involvement and ownership; and not considering cultural values and traditions; in other words, it is criticized due to its insistence to transfer Western values, ideas and practices to different contexts without examining their suitability for diverse settings (Aggestam and Sundell-Eklund, 2014: 13). Liberal peace-builders generally regard local people as incapable of solving their problems on their own as they lack in knowledge and skills, and thus, the involvement of international actors, activities and principles for peacebuilding is deemed necessary or justified (Auteserre, 2017: 123). However, the critics, on the other hand, approach these international actors with suspicion on the ground that they do not usually know or do overlook local realities and interests (Aggestam, 2015: 336; Swain, 2016: 1316).

Western leaders, peacemakers and policymakers regard universal liberal standards, which are originally designed to promote cooperation and peace between developed countries, as applicable worldwide. However, these standards might clash with the non-Western world's priorities or circumstances, or, more importantly, failed or developing states' colonial history and/or socio-economic conditions might hinder genuine cooperation between them and the developed countries, which often

necessitates delving into the structural and fundamental issues that are at stake (Aksoy, 2005: 18-19).

Similar concerns exist when environmental peacebuilding is conducted in line with the predominant liberal paradigm. Some scholars put forward that liberal peacebuilding practices since the end of the Cold War have almost always incorporated resource exploitation and unsustainable environmental peacebuilding, often led by and serving external actors' interests (Swain and Öjendal, 2018: 10).

Liberal peacebuilding, which prefers technical and scientific methods to promote peace and cooperation, is criticized also due to its apolitical peacebuilding strategy in highly politicized contexts like the Middle East (Jägerskog, 2018: 215). Israeli-Palestinian water negotiations and agreements were dominated by liberal peacebuilding paradigm, which favoured technical and scientific measures to deal with water problems rather than mention and discuss water rights and international law; and technocratic peacebuilding masked the unequal water allocation and power asymmetries between the parties (Aggestam and Sundell-Eklund, 2014: 14-15). However, overlooking Palestinian water rights are not likely to improve Palestinian economy, increase its institutional capacities and democratic practices for which liberal peacebuilding aspires (Jägerskog, 2018: 215).

This thesis regards peacebuilding efforts the EcoPeace Middle East and particularly its Good Water Neighbors project as instances of liberal environmental peacebuilding, since this project has a predominant technical/depoliticized water cooperation strategy, which overlooks Palestinian water rights and thus, is far from resolving the water issue in question. This thesis adopts the approach of political ecology, which is critical of the liberal/depoliticized nature of mainstream environmental peacebuilding, to evaluate the GWN project. It argues for the inclusion of politics and power relations to comprehend the efficiency of peacebuilding initiatives in general and water cooperation in particular. Below the main arguments of political ecology are succinctly explained, which inform the theoretical framework of this thesis. As a research method, the dominant political positions of the partner countries of the GWN are critically analysed on the basis of the lens of political ecology.

1.7. THEORETICAL FRAMEWORK: POLITICAL ECOLOGY

Political ecology has emerged as an interdisciplinary research field in the 1970s with the combination of political economy and cultural ecology in order to analyze human and environment's mutually constitutive and reciprocal relations (Blaser and Escobar, 2016: 164; Neumann, 2014: 6). This approach utilizes discourse analysis, ethnography, historical analysis, culture theory, political economy, anthropology, geography, political, social and environmental sciences as methods and tools (Biersack and Greenberg, 2006: 3-5; Neumann, 2014: 6). It aims to unveil interactions between nature, human, culture, politics and power from a critical perspective (Islar and Boda, 2014: 2).

Political ecology asserts that there exist politics and power behind every environmental problem and their technical solutions; and it claims that environmental changes and problems are affected and exacerbated by power asymmetries, welfare gaps and unequal resource access (Biersack and Greenberg, 2006: 3-5; Ide, 2020: 3-4; Peluso and Watts, 2001: 24-30).

Policymakers and practitioners refrain from touching upon political matters, and instead prefer to solve problems in technical and scientific ways so as not to give rise to resistance, because de-politicization of environmental cooperation ignores power asymmetries, inequitable resource distribution and antagonistic discourses. However, this strategy can impede environmental peacebuilding, since it might disregard real concerns and interests of the parties (Aggestam and Sundell Eklund, 2014: 18; Ide, 2020: 3).

Political ecologists point out that liberal environmental peacebuilding fail to comprehend how power and wealth determine resource scarcity in the first place; in fact, vulnerability to resource scarcity and natural problems often derive from pre-existing structural inequalities, while depoliticized/technical cooperation mentality prevent peacemakers from addressing human grievances and insecurity arising mainly from these power asymmetries and unequal resource allocation, thus perpetuating the unequal status quo (Aggestam and Sundell-Eklund, 2014: 18; Ide, 2020: 3-4; Ide, 2021: 8; Peluso and Watts, 2001: 24-30).

Therefore, differing from the liberal peacebuilding approach, political ecologists argue for the inclusion of politics and power relations into environmental peacebuilding in order to better understand the degree of resource control and efficiency of cooperation. They claim that not all cooperation is good and satisfactory for weaker sides, because it can mask power asymmetries, unequal allocations and structural violence (Aggestam, 2015: 337; Messerschmid, 2007: 9-18; Zeitoun and Mirumachi, 2008: 305-307).

Liberal peacebuilding and development agenda of the Global North, for political ecologists, instead of helping decrease poverty and environmental problems, consolidate the power positions of the already powerful states and international actors; and Western standards and values are deployed to dominate the Global South and to exploit underdeveloped countries for the sake of capitalist economy, while locals desperately want to see their interests and rights be recognized (Neumann, 2009: 231).

Scholars working on political ecology take hydro-hegemony and counter-hegemony into account while studying hydro-politics and river basin cooperation (Wessels, 2016: 1324-1325). Counter-hegemony refers to the processes through which actors promote policies, positions and ideas to challenge dominant ideologies, beliefs and assumptions (Cox and Schilthuis, 2012: 1-4; Messerschmid, 2007: 19-21). It purports to identify alternative principles, values and ideas in order to replace hegemonic positions and culture (Cox and Schilthuis, 2012: 1-4).

For example, a hydro-hegemon state can hinder parties to find genuine solutions to water problems so as to maintain its exclusive control over water resources. Such a state can maintain its hydro hegemony through treaties, its power of knowledge or even coercion and violence, while this hegemony may be traced back to its superiority in military, economy and human resources (Talozi et al., 2019: 918; Woodhouse and Zeitoun, 2008: 110-115; Zeitoun and Warner, 2006: 451-454).

In this regard, a counter-hegemonic position might be formed by prioritizing ethics and international law, attracting attention and support via media and internet, and searching for international funds and support with a view to achieving equal resource distribution and positive-sum cooperation (Abukhater, 2013: 209; Messerschmid, 2007: 19-21; Zeitoun and Warner, 2006: 454-455).

As its research method, this thesis makes a critical political analysis and investigates water politics, policies, positions and strategies of partnering countries and the GWN project. It seeks to find out whether technical water cooperation mentality of GWN initiative is suitable to promote peace and cooperation among Jordan, Israel and Palestine or whether this initiative reproduces the status quo due to its disregard for unequal water distribution and power asymmetries. This analysis is crucial because for the success of environmental peacebuilding, interests, strategies and policies of the respective parties should be compatible to a considerable extent to facilitate cooperation, trust and understanding, and environmental peacebuilding initiatives should consider weaker parties' interests, needs and rights for more equal and plausible outcomes.

1.8. CONCLUSION

This chapter tried to explain the newly emerging research field of environmental peacebuilding, including its definition, methods, conditions, benefits and outcomes as well as its shortcomings and possible side effects as expressed by its critics. The first part of this section looked into the literature on environmental peacebuilding, while the second part focused on environment/climate-conflict nexus in order to highlight the field's evolution. Then, one of the main critics of the liberal peacebuilding and the theoretical background of this thesis, the approach of political ecology, was described with regard to its main arguments and suggestions for environmental cooperation initiatives.

The next chapter elaborates on the water-peace nexus, conflicts in the Middle East in general and water conflicts in particular, multilateral and bilateral water negotiations and agreements among the partners of EcoPeace Middle East and other Middle East countries.

CHAPTER TWO

WATER-PEACE NEXUS AND WATER IN THE MIDDLE EAST

2.1. INTRODUCTION

Having elaborated on the newly emerging field of environmental peacebuilding, this chapter begins with showing linkages between water and peace together with conditions for successful peacebuilding via water management and then explains the critics of water-peace nexus. It continues with water crisis and scarcity in the MENA region in order to illustrate the severity of the current situation. Thereafter, it points to political crises and conflicts so as to clarify the complex circumstances which include the long standing and intractable Arab-Israeli and Israeli-Palestinian disputes.

Following the depiction of crisis-prone region, the chapter shows that several bilateral and multilateral cooperative water initiatives were realized notwithstanding the region's political crises and intractable conflicts. Specifically, it illustrates that EcoPeace Middle East partners signed bilateral treaties among each other to manage their transboundary water resources (Oslo I and II Accords between Israel and Palestine, and the 1994 Israel-Jordan Peace Treaty).

2.2. WATER-PEACE NEXUS

Water is the most essential element of human lives in this planet and its continuous availability matters for human and state security. It is crucial for sustaining human existence, for providing food and energy security, and for maintaining ecological wellness and balance.

However, the quantity and quality of water have been in continuous decrease, especially in the arid regions like the Middle East and Africa. There exist some factors multiplying water scarcity: highly growing world populations' increasing demand for water; over-utilization of water for economic development; ineffective or lack of management of water resources; and more importantly local and global environmental change (Link et al., 2016: 501-504).

Climate change's adverse effects include increase in evaporation and result in decreasing rainfalls, as a result of which soil degrades and rivers' flows decline, which constitute a serious water crisis. Although world population's demand increases, water supply is in continuous decline and that is why millions of people lack fresh water for sustaining their lives. Furthermore, due to industrialization and technologic advances countries use more water resources for development and thus contribute to water scarcity intentionally or unintentionally. Some states prefer unilateral management of transboundary water resources even though bilateral or multilateral management would be much more advantageous for them and nature. Sometimes cooperation over transboundary river basins is ineffective since it does not pay attention to water's efficient management, but rather puts greater emphasis on economic and political benefits over cooperation. These facts on water scarcity, increasingly having adverse effects on national, regional and human development, create security concerns for many (Carius et. al., 2004: 1-3).

Since water scarcity and the numbers of shared river basins (because of territorial changes) go up, the possibility of armed conflict also increases due to the need to ensure continuous access to water (Wolf et al., 2006: 1). This is a natural reaction to mounting water scarcity, since for many centuries people competed for water resources to produce food, and even the word 'rivalry' comes from Latin 'rivalis' that refers to people or states that use same water (Yoffe and Wolf, 1999: 197; Wolf et al., 2006: 1; Abukhater, 2013: 8). For example, the World Bank Vice President Ismail Serageldin asserted that the next century wars would be fought over water while the former UN Secretary General of Boutros Boutros-Ghali insisted that next war would occur in the Middle East because of water (Abukhater, 2013: 14; Dinar, 2009: 109; Wolf et al., 2006: 1).

This increasing water scarcity prompted many environmental security researchers such as Gleick (1993), Homer-Dixon (1994), Westing (1986) and Butts (1997) to analyze the possible links between water scarcity and conflict in transboundary river basins. For these scholars, increasing scarcity triggers conflict and even war among nation states, especially if they already have conflictual relations and if institutions are not efficient to mediate and solve problems among riparian states (Swain, 2016: 1313-1314).

After analyzing links between transboundary river basins and conflict, De Stefano et al. (2010: 871) defended that the most controversial issues in this respect are water quantity and infrastructure. States give utmost importance to water quantity to maintain social and economic development, and thus they compete with other states for more utilization of transboundary water resources. Furthermore, construction of dams and other water-related infrastructure projects are truly regarded as possible source of conflict, since countries desire for control and access to water resources to sustain their populations. If, for example, construction of dam by one state threatens water availability for others, this might escalate into conflict and worsening of relations.

Although the history of water relations witnessed water-related conflicts within states, countries do not prefer to go to war over water resources. The only water war in the world history was fought between the Sumerian city states of Umma and Lagash.

Contrary to the expectations for water-conflict linkages, extensive research of Aaron T. Wolf and his colleagues show that cooperative water-related events (1228) far outweigh conflictual water-related events (507), and that states are much more inclined to cooperation rather than conflict and war (Wolf, 2004: 7; Wolf et al., 2006: 3; Wolf, 2007: 260). Two-thirds of water-related events are cooperative and the vast majority of conflict events over water are not more than verbal tensions, while all the 30 out of 37 water-related conflict events occurred in the Middle East between Israel and its neighbors in the period of 1948-1999 (Wolf, 2007: 260).

During the period of 1990-2001, only 17 conflict events were recorded in transboundary river basins worldwide (Dinar, 2009: 109). De Stefano et al. (2010: 881-883) also claim that cooperative events are much more than conflict ones in the recent period, even in the Middle East and North Africa where intractable conflicts exist.

All in all, notwithstanding the conflictual potential of transboundary water resources, countries choose to negotiate and cooperate over river basins. The initial research on water-conflict nexus has a deterministic and unidirectional perspective which ignores water resources' potential to initiate peace and cooperation between and within states.

Because cooperative water-related events far outweigh the conflictual ones and because water management institutions prove resilient even during conflicts,

researchers have shifted their attention to searching for water-peace linkages (Kramer, 2008: 9). Event analyses of De Stefano et al. (2010: 876-880) and Wolf (2004: 7) indicate historical records of cooperation on water-related issues despite the existence of confrontations on other matters. It has been argued that sustainable peacebuilding can be achieved if water is included in negotiations and treaties, because it is important for drinking, sanitation, agriculture, industry, forestry, fishing and transportation, and it enables human and economic development (Link et al., 2016: 495; Swain, 2016: 1313; Weinthal et al., 2011: 143).

Scholars in this vein put forward several reasons why states prefer to cooperate over water resources. Since water is considered as a low politics issue, it acts as an important entry point to increase trust and understanding among conflicting parties even though they have disputes over other issues (Carius et al., 2004: 3; Swain, 2016: 1314-1316). Also, transboundary water management is cost effective and economically sound, and thus it attracts states to go for cooperation (Dinar, 2009: 115). Moreover, water has no boundaries and this situation creates complex interdependencies among riparian states (Dinar, 2009: 111). For example, if one state over-utilises or contaminates water resources, this will cause a loss to all parties sharing river basins. Therefore, this interdependence incentivizes riparian states to choose for cooperative solutions over the sharing of water resources (Dinar, 2009; Ide and Detges, 2018: 64-66; Kramer, 2008: 10; Wolf et al., 2006: 1). Another reason is that threat of water scarcity acts as a unifier among parties and they consider the necessity of cooperation to sustain water availability (Swain, 2016: 1314). Otherwise, they acknowledge that their unilateral or free-riding behavior will decrease water quantity and quality.

As mentioned above, this propensity to cooperate over water resources has historical evidence. For example, the Mekong Committee, founded by Vietnam, Thailand, Laos and Cambodia in 1957, maintained water-related cooperation during the Vietnam War; Israel and Jordan arranged secret picnic table talks since 1953 over water-related issues even though they waged war against each other until 1994; and Indus River Commission continues to exist although India and Pakistan had two wars between each other (Wolf et al., 2006: 3). Moreover, water cooperation builds shared identities and institutions over water-related and other issues such as the creation of

South African Development Community (SADC) in southern Africa and Helsinki Commission around the Baltic Sea in the Cold War period (Wolf et al., 2006: 3).

Having put forward the main reasons why states desire to cooperate over water issues, now it is crucial to explain how transboundary water management increases peace and cooperation. Since environmental peacebuilding literature is mostly composed of water-conflict-peace studies, similar pathways to water-peace nexus

Water cooperation can take several forms: people-to-people or expert-to-expert communication; high level formal meetings, speeches and negotiations between states; river basin treaties; and formation of joint water management institutions etc. (Wolf et al., 2006: 3), Transboundary water cooperation among conflicting parties might initially increase trust and understanding as they learn each other's past grievances and thus acknowledge the other side as a legitimate actor to negotiate; and this learning, in turn, can remove stereotypes and prejudices both at state and societal levels (Ide and Detges, 2018: 65-67; Swain, 2016: 1314-1316; Wolf et al., 2006: 1-4)

Continuous cooperation and communication may pave the way for the creation of joint institutions and collective identity if parties negotiate over injustices and root causes of conflicts (Kramer, 2008: 10-11; Swain, 2016: 1314-1317; Zeitoun and Mirumachi, 2008: 303-305). When conflicting parties reduce or remove unequal water allocations and mitigate or resolve root causes of conflicts, they can manage transboundary rivers on the basis of common interests and equal conditions (Ide, 2021: 12-16; Kramer, 2008: 9-11; Krampe et al., 2021: 4-8).

Finally, if this cooperation works properly, individuals would have capabilities to better sustain their livelihoods and accommodate themselves to changing water conditions in time (Ide, 2021: 16-17; Krampe et al., 2021: 5-8).

However, there are several conditions for transboundary water management if it is to contribute to peace and cooperation among and within states.

Institutional capacity and well-developed treaties that reflect common interests matter for sustainable peace through water cooperation (Weinthal et al., 2011: 150-151; Wolf, 2004: 22-24). In this vein, liberals assert that fears of cheating must be removed, transaction costs should be lowered and transparency needs to be enhanced via proper institutional arrangements.

For realists, water management might contribute to peace if the gains are balanced; if cooperation mirrors power distribution among parties; if hegemon is downstream riparian and gives critical importance to water resources (Dinar, 2009: 113-115).

However, sharing of gains over water resources may be difficult since parties can have different perceptions of equitable sharing. Rights-based sharing prioritizes allocation in accordance with rights. For example, if a state is downstream or if it claims that it has historical rights over water resources, it insists on sharing on the basis of rights. On the other hand, needs-based approach favors sharing water resources in accordance with parties' needs. Population size and the amount of irrigable land might be the measurement criteria of needs. Therefore, it is crucial for parties to balance rights and needs while negotiating water treaties for sustainable peace (Kramer, 2008: 30-31; Abukhater, 2013: 187-240).

Water management might increase peace and cooperation among parties if high-level political elites are interested in and support this process (Swain, 2016: 1315), since ruling elites have power and authority to sign water treaties and to spread this cooperation to the vast majority of public.

Even though successful water management should include third party's financial support and impartial mediation, for sustainable peace local support and commitment have more importance. External peacebuilding initiatives should pay attention to local ideas, practices and culture, and let local people play an active role in water management in order to consolidate cooperation and peace.

Shlomi Dinar claims that water scarcity might promote cooperation among conflicting parties on condition that this scarcity is moderate. Because if water is abundant, parties would not need to share this resource since they both have enough water, or if water is extremely scarce, they would not derive enough benefits due to the little amount of water (Dinar, 2009: 119-120).

Another study by Tobias Ide and Adrian Detges emphasizes that positive water-related activities and interactions among conflicting parties in the last ten years enhance the likelihood of peaceful relations via transboundary water management, especially if parties are not in violent conflict (Ide and Detges, 2018: 72-77). They confined the period limit to ten years because if positive relations happened a long

time ago, statesmen and experts might have left their positions and publics of two parties might be concerned about current events rather than water-related activities that occurred more than ten years ago.

Furthermore, any successful cooperation requires mutual influence of each party (Brown and Ashman, 1996: 1470-1475). Weaker parties should have a chance to articulate their interests and their negotiating capacities must be enhanced.

In addition, internal conditions of both parties should be stable; recent violence among them should be absent and conflicting parties should pay attention to water-related problems in order that transboundary water management contributes to peaceful relations between them (Kramer, 2008: 30-31; Swain, 2016: 1317-1320; Weinthal et. al., 2011: 147-151; Wolf, 2004: 22-24)

The research on water-peace nexus has received several criticisms. Although scholars sought to prove water-peace linkages, there exists no certain evidence that transboundary water management increases peace and cooperation.

Transboundary water management does not cause peace or conflict on its own but it can trigger and facilitate peaceful relations among conflicting riparian states if this cooperation is practiced under proper conditions; the conditions mentioned above. In other circumstances it can multiply conflict and problems (Swain, 2016: 1317-1320).

Water-peace nexus tends to depoliticize transboundary water cooperation and regards water management as technical practices that are to be conducted by scientists and technicians. Policymakers and practitioners in this regard abstain from touching upon political matters and ignore power asymmetries, unfair resource distribution and antagonistic discourses which can impede peaceful relations via water management (Aggestam and Sundell Eklund, 2014: 15; Kramer, 2008: 31). However, political issues can create or increase water-related problems in the first place and this refrainment from political issues reproduce the status quo that involves ongoing injustices and asymmetries.

In a similar fashion, conflicts over transboundary waters cannot simply be resolved by increasing water quantity. Rather, wider societal, cultural, economic and political structures, and discourses need to be considered for more successful

peacebuilding initiatives via water management (Aggestam and Sundell-Eklund, 2014: 14; Link et al., 2016: 505-506).

Many researches in this field regard treaties as indicators of cooperation, but agreements do not guarantee the spill over of trust building and cooperation, since some treaties might conceal inequalities and conflict or make them more visible (Ide and Detges, 2018: 66-67).

Moreover, some water-related cooperative events might be shallow and ineffective just because that parties engage with each other within the context of mutual distrust, clashing discourses, inequalities and ongoing conflict (Link et al., 2016: 504).

Furthermore, Aaron T. Wolf criticizes that the literature on transboundary water cooperation treats actors as homogenous entities. He argues that water has different meanings for sub-state actors, and clashes over water do not occur only over quantity but also over diverging meanings, discourses and contexts (Wolf, 2004: 10-11).

Finally, Mark Zeitoun and Naho Mirumachi defend that conflict and cooperation co-exist and it is not true to say that all cooperation is good and all conflict is bad, but for them some cooperation exacerbate conflict rather than solve it. Therefore, they suggest the simultaneous study of cooperation and conflict and paying attention to the underlying effects of conflict and cooperation while analyzing transboundary water relations (Zeitoun and Mirumachi, 2008: 305-309).

Since empirical evidence is not yet sufficient to prove the linkage between water and peace, scholars in this field should increase their efforts to contribute to the explanatory power of this nexus. Above all, more attention should be paid to critical studies on transboundary water management, and power asymmetries, inequitable water access and antagonistic discourses should be considered rather than ignored. Intra-state water management should also receive greater attention and analysis of multiple levels of society might enable to find evidences for water-peace linkages.

2.3. WATER CRISIS AND SCARCITY IN THE MIDDLE EAST

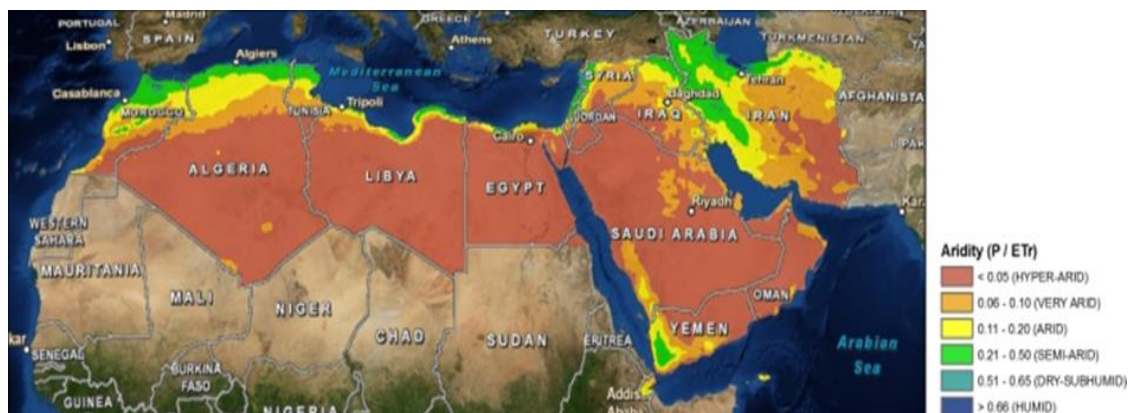
The Middle East and North Africa (MENA) is one of the most water-scarce regions in the world and 85% of its land is covered by deserts. It has arid and semi-arid climate characteristics, and thus sufficient amount of rainfall and snow do not precipitate on this region.

The MENA region encompasses 4.9 percent of the world's total area and hosts 4.4 percent of the world's population but it has only 1.1 percent of the world's renewable fresh water resources. The average per capita water availability per year is 1,200 m³ in the MENA region while globally this number averages around 7,000 m³/person/year (Bozorg-Haddad et al., 2020: 86; Kibaroglu, 2016: 1).

Food and Agriculture Organization (FAO)'s statistical data illustrate available fresh water resources per year per capita and thus water scarcity in the Middle East: Israel 214 m³; Palestine, 170 m³; Jordan, 97 m³; Qatar, 22 m³; UAE, 16 m³; Yemen, 74 m³; Saudi Arabia, 73 m³; Kuwait, 5 m³; Iran, 1688 m³; and Turkey, 2621 m³ (FAO AQUASTAT, 2017).

Normally, the threshold for water scarcity is 1,000 m³; less than 1,700 m³ water availability means water-stressed region; and less than 500 m³ fresh water resources per capita indicates absolute water scarcity. These water-scarce countries import food and desalinate sea water in order to compensate for their water shortages.

Figure 1: Aridity in the MENA Region



Source: FutureWater, (2011). The Middle East and North Africa Regional Water Outlook. Retrieved from: <https://www.futurewater.eu/projects/mena/>

The MENA is the most dependent region on international river basins as its rivers supply circa 75 percent of its population's fresh water needs despite the environmental problems this over-utilization brings (Schierholz, 2018: 1). It seems alarming and threatening that the MENA region's water availability is expected to reduce by 50 % by 2050. Today, around 75 % of the region's population live through under water scarcity threshold and 50 % of them live under absolute water scarcity levels (Zawahri, 2019: 171).

There exist several factors contributing to water crisis in this region: population growth; higher living standards and economic development; mismanagement of water resources; inadequate water infrastructures; lack of effective policy planning; unequal water allocation; climate change's adverse effects; and pollution and over-exploitation of water resources (von Lossow and Shatat, 2020: 38; Zawahri, 2019: 169).

Zawahri (2019) shows that, "MENA's population is expected to increase from 480.7 million in 2010 to 771.2 million by 2050, a 57 % increase" (p. 169). High birth rates and immigration are expected to increase today's nearly 20 percent demand-supply gap and are very likely to exacerbate the water crisis in the region. Since the region is rich in carbon fuels and has started to have higher living standards and economic development, its carbon dioxide emissions have been on a constant rise. This region holds the first rank in the growth rate of carbon dioxide emissions worldwide and it causes 4.5 percent of global greenhouse emissions due to rising industry, and the parallel demand for electricity and water (EcoPeace Middle East report, 2019: 9).

In addition, increasing agricultural and industrial development together with population growth contaminate water resources, leading to decrease in the quality of water (Nachmani, 1997). Moreover, the MENA is the leader in the consumption of water for agricultural production with an average of 83 %, but farmers produce low-yielding and water intensive crops which in turn cause the waste of excessively scarce water resources in the region (Bozorg-Haddad et al., 2020: 95; von Lossow and Shatat, 2020: 35; Zawahri, 2019: 169). Although most of the water is utilized for agriculture, the region takes the lead in global food imports, importing over 50 percent of its domestic food needs; and water is heavily subsidized in this region and especially oil rich states consume high amounts of water, and farmers resist against the decrease in

government subsidies for water consumption despite serious environmental risks (Zawahri, 2019: 170).

Countries in the MENA often prefer to construct water management infrastructures, including massive dams and desalination plants, without considering their long-term environmental consequences (Zawahri, 2019: 170). Policies for water management often do not consider ecological disadvantages due to economic and political gains, and reforms to ameliorate water systems are postponed mainly due to political considerations.

Water allocation is another serious problem in the region, and upstream and/or powerful riparian states take the lion's share of water resources.

This uneven distribution creates water scarcity for less powerful and/or downstream riparian states. For example, Egypt utilises water resources far more than other riparian states over the Nile River basin and similarly Israel makes use of water resources many times more than Jordan, Palestine, Lebanon and Syria over the Jordan River basin (Abukhater, 2013: 11-13; Kibaroglu, 2016: 3-6).

Table 1: Unequal Water Distribution Between Israel and Palestine

Transboundary Water Source	Allocation or consumption (MCM/y)	
	Israel	Palestine
<i>Surface Water</i>		
Jordan River System ³⁹	660	0
Wadi al Far'a ⁴⁰	6	6–12
Wadi Gaza ⁴¹	25	0
<i>sub-total</i>	691	9
<i>Groundwater</i>		
Eastern Aquifer Basin	40 ⁴²	68 ⁴³
North Eastern Aq. Basin ⁴²	103	42
Western Aquifer Basin ⁴²	340	22
Coastal Aquifer Basin ⁴⁴	429	135
<i>sub-total</i>	912	267
<i>Total</i>	1,603	276

Source: Zeitoun, M. (2008). Power and Water in the Middle East: The Hidden Politics of the Palestinian–Israeli Water Conflict. IB Tauris & Co Ltd., p. 58.

Climate changes' adverse effects keep on rising in this region and it aggravates water stress and scarcity day by day. Intergovernmental Panel on Climate Change (IPCC) report on the Middle East which was published on August 9, 2021, predicts that aridity and droughts in the region will further increase which will bring more wildfires with it for the MENA region; and this report estimates temperature rise that exceeds 2°C by 2050 (IPCC, 2021), and temperature rise can go up to 3,94°C until the end of the 21st century (EcoPeace Middle East, 2019: 9-10). This increase in temperature would cause higher evaporation rates and continuous decrease in the amount of rain and snow, making droughts and water scarcity more apparent in the region.

Countries in the region overexploit rivers and aquifers to an extent that they exceed these water resources' recharge capacity. They also lose around 40 % of their water due to leakages and inadequate irrigation systems, and this percentage reaches 50 % in Lebanon (von Lossow and Shatat, 2020: 37-38).

Countries in the MENA region do not treat wastewater sufficiently and evacuate their household and industrial wastes to the rivers, which, in turn, increase water pollution (Joffé, 2016: 59). The region experiences not only water quantity but also water quality problems and polluted water is fit neither for human consumption nor for agricultural use; and this problem in water quality aggravates the MENA populations' risks for waterborne diseases such as diarrhea, typhoid, cholera and malaria, all of which are particularly risky for children (Zawahri, 2019: 174).

Due to water scarcity in MENA, water can often be accessed for a few days in a week and a few hours in a day (Zawahri, 2019: 172). For example, the water crisis in Yemen is striking; half of its population does not have access to fresh water and Yemen's 74 m³ freshwater resources per person per year is 16 times less than the Middle East average of 1,200 m³ per person per year. Besides, water scarcity in the Euphrates and Tigris Rivers are in continuous increase as their water storage declines nearly 27 mm annually (Bozorg-Haddad et al., 2020: 86).

The Jordan River basin is faced with a high risk of water scarcity. EcoPeace Middle East 2019 report points out that, "The Jordan River's total runoff at the outlet of the catchment area is said to decrease by 23 percent." (p. 10). Jordan River's current flow has declined to 10 percent of its natural discharge level due to climate change's

adverse effects and overexploitation of its water resources at a rate of 96% of diversion (Kramer, 2008: 11; Schierholz, 2018: 15). Evaporation rate surpasses rainfall and water per capita decreases consistently. Historically around 1,300 million cubic meters (MCM) of water used to reach the Dead Sea, but due to over-extraction and diversions only up to 30 MCM of water flow into the Dead Sea and this indicates a 97% decline in Jordan River's flow (Talozi et al., 2019: 914).

The Jordan River is mainly polluted due to waste dumping, salty water's intrusion and non-treated wastewater. Municipal waste per year in this river corresponds to 18,000 tons from Palestine, 24,000 tons from Israel and 120,000 tons from Jordan (Kool, 2016: 16). For instance, pollution and salt intrusion renders nearly all of the water resources of Gaza Strip unfit for human consumption.

Countries in this region utilize aquifers as alternative water resources: Israel and Jordan meet more than 50% of their freshwater needs from aquifers while Palestine receives almost all of its freshwater needs from these alternative water resources (Kramer, 2008: 11). Israel controls most of the water resources of the Jordan River basin and aquifers, and it supplies water to Palestinians with high prices via Mekorot, its national water company. This unilateral management of water resources by Israel creates water scarcity for many Palestinians and some of them illegally extract water from pipes or dig wells without prior approval from the formal bodies (Schierholz, 2016: 3).

Palestinian population has approximately 100 litres water per day/per person for cooking, drinking and sanitation, while Israel has two or three times more available water per capita for daily use (Brooks et al., 2020: 17-18). While Israel benefits from 75 percent of Coastal Aquifer's water resources in the Gaza Strip, Palestine uses only 25 percent of this aquifer's water resources and these two countries' over-extraction of this aquifer causes 27% deficit in its annual replenishment rate (Joffé, 2016: 56).

Israel over-utilizes Mountain Aquifer's water resources in the West Bank to the extent that its utilization exceeds West Bank water resources' natural replenishment level in order to meet Israel's nearly one-third of total water supply per year (Mukhar, 2006: 79), and since Mountain Aquifer plays a crucial role in water supply, Israel does not want to relinquish its control over these water resources (Yoffe and Wolf, 1999: 205).

In addition, countries in the region do not perform well in wastewater treatment. For example, most of the water flows from the West Bank into Israel without being treated. The West Bank has only two sewage treatment plants and they are not capable to cover all sewage and waste. Also, water loss in this area reaches to 33 percent because of the inappropriate management of wells and leakages in pipelines (Schierholz, 2016: 3).

On the other hand, Jordan's water scarcity seems also alarming and threatening. Jordan's population grew 87 percent between 2004-2015 and current inflow of refugees from Syria amounts to nearly 1,5 million, while water availability per capita is in continuous decrease mainly due to increasing water demand and climate change's negative impacts (von Lossow and Shatat, 2020: 42).

While Jordan, Israel and Palestine all face water crisis, Israel seems to be more advantageous since it can compensate for its water scarcity thanks to its advanced technology and economic situation, which enable it to desalinate water and import food from other countries.

This increasing scarcity prompted environmental security scholars to search for causal linkages between water scarcity and conflict in transboundary river basins in the MENA region. Contrary to the expectations of conflict-scarcity nexus, large-scale research of Aaron T. Wolf and his colleagues found out that cooperative water-related events (1228) are significantly more than conflictual water-related events (507), while the vast majority of the conflict events are not more than verbal arguments (Wolf, 2004: 7; Wolf, 2007: 260; Wolf et al., 2006: 3). De Stefano et al. (2010: 881-883) point out that this tendency to cooperate is witnessed even in the MENA region where intractable conflicts exist.

Even though water wars do not occur among nation states in this region, water acts as a threat multiplier and lack of sufficient amount of water or competition for more water trigger uprisings and conflicts between and within states. Egypt, Ethiopia, Kenya, Uganda, Tanzania, Rwanda, Burundi, Sudan and the Democratic Republic of the Congo have disputes over the Nile River; Palestine, Jordan and Israel compete increasingly for the utilization of water from the Jordan River basins and several aquifers; Syria, Iraq and Turkey have problems over water quantity in the Euphrates and Tigris Rivers; and Israel and Lebanon dispute for the Hasbani River.

Although water is not a direct cause of the Six-Day War in 1967, Israel's nearly total domination of the Jordan River basin after this war created unequal water allocation. Palestine, Syria and Jordan still struggle to claim back their water resources from Israel. On the other hand, water might not be a direct cause of the 2011 Syrian Civil War, but its scarcity due to droughts deteriorated the socioeconomic conditions and increasingly led to the cessation of farming from 2000s to 2010s; and protests against the Syrian regime became more severe, and peasants and workers chose to join the ranks of opposition groups (Kibaroglu, 2016: 15; Smith and Krampe, 2019: 203-205; von Lossow and Shatat, 2020: 85-86).

In a similar fashion, decreasing rainfall and droughts in Iraq paved the way for farmers' recruitment by ISIS against the government in 2014-2015 period (von Lossow and Shatat, 2020: 39-40). Besides, during these civil wars and political tensions water was sometimes used as a weapon as warring parties targeted water infrastructures and inflicted heavy damage on them; and because of the high importance of water, these rebel groups also struggle to capture water resources in order to sustain their control and livelihood (Kibaroglu, 2016: 11-12; von Lossow and Shatat, 2020: 41).

In addition, Turkey's unilateral construction of water infrastructure projects since the 1970s and Ethiopia's construction of Grand Ethiopian Renaissance Dam have strained their relations respectively with Syria and Iraq, and with Egypt. Such grand projects multiply the environmental crisis in the region.

The countries should increase cooperation in order to mitigate and solve environmental problems in the MENA. However, socioeconomic problems, mutual suspicion and mistrust among region's population, intractable conflicts, lack of attention to environmental issues by high-level statesmen and lack of strong institutions together with some other reasons obstruct water cooperation.

The MENA region's geo-strategic importance along with its intractable conflicts that are mainly due to the failing state capacities, sectarianism and nationalism, among others, complicate cooperative water-related ventures. 60 percent of the region's rivers have transboundary nature, namely crossing across more than one state, and half of the region's population depends on freshwater flowing from another state, which in turn renders water-related agreements difficult to achieve

(Kibaroglu, 2016: 1-2). Powerful riparian states usually prefer unilateral water management strategies and this situation exacerbates political crisis and feeds the animosity of vulnerable riparian states' population.

Lack of cooperation in this region happens mainly because of political crisis between states. Israel controls nearly all of the water resources of the region, however, Palestinians consistently claim for their water rights over the West Bank; Israel's former PM Sharon regarded Lebanon's diversion of water from Wazzani River as a *casus belli*; upstream riparian state Ethiopia challenges hydro-hegemony of Egypt over the Nile River; Euphrates and Tigris Rivers witnessed unilateral and competitive water projects initiated by Iraq, Syria and Turkey, and the latter was accused of not willing to share the waters of these rivers but to enjoy hydro-hegemony in the region; and the existence of political frictions in the region such as in the Arab League further complicates water cooperation and water sharing issues are framed as zero-sum game (Kibaroglu, 2016: 7).

In addition, since these riparian states do not have agreements over water development projects, it seems difficult to attract international financing, especially from International Monetary Fund (IMF) and World Bank (WB), which give importance to unanimity among riparian states (Nachmani, 1997: 77-78). For instance, Israeli-Palestinian peace process in Oslo Accords of 1993-1995 attracted international donor community to assist Palestinian water infrastructure development; however, Second Intifada (2000-2005), Gaza War in 2008 and non-functionality of Joint Water Committee ended in donors' withdrawal of financial support to water cooperation between Israel and Palestine (Schierholz, 2016: 5).

Even though cooperation seems difficult to achieve, countries in the MENA region need to tackle environmental problems together and they should work on cooperative ventures while they still have time to turn the tide. Countries might desalinate seawater, treat wastewater and reuse it, and can adopt stricter environmental protection measures so as to mitigate water scarcity (Bozorg-Haddad et al., 2020: 86-87).

However, while desalination may be a good policy option to increase drinking water for the region, it seems inappropriate to meet the agriculture sector's water needs, which consume 83 percent freshwater of the region on average (Zawahri, 2019:

169). Virtual water trade, namely importing food, and switching to non-agricultural production appear as other possible remedies for water scarcity (Bozorg-Haddad et al., 2020: 93-94). However, it is unlikely for region's population to abandon millennia-old agricultural production and, even if they do, it is difficult for the governments to employ farmers in other occupations (Nachmani, 1997: 72-73).

Therefore, countries in the MENA region should come together to find environmentally and economically sustainable solutions to the region's water scarcity and in this way, they should give equal importance to political and technical issues in order to achieve a comprehensive agreement on sustainable water management projects.

2.4. ARAB-ISRAELI AND PALESTINIAN-ISRAELI CONFLICTS

The demise of the Ottoman Empire at the beginning of the 20th century resulted in the British occupation of Palestine territory (1917) during the First World War. While this war proceeded, Britain gave two simultaneous promises to the Arabs and Israelis. 1915-1916 Hussein-McMahon Correspondence ensured British support for an independent Arab state in the Palestinian territory on condition that Arabs would help Britain against the Ottoman Empire. On the other hand, the 1917 Balfour Declaration pledged a Jewish state over the same territory in order to take the support of Israel in the Middle East.

After several years of control in Palestine, Britain decided to withdraw and transferred the Palestinian issue to the UN. In November 1947, the United Nations Resolution 181 determined the partition of British-controlled Palestinian territories into an Arab and a Jewish state, namely a two-state solution with 54 % of the former Palestine being given to the Jews and 46 % to the Arabs (Mukhar, 2006: 65). However, the Arabs rejected the plan and the War of Independence (1947-1949) or in Arab terms 'Nakbah', literally meaning the Catastrophe, commenced between Egypt, Lebanon, Syria, Jordan and Israel. This war ended up with an Israeli victory and the displacement of nearly 750,000 Palestinians, turning them into refugees mostly in Arab states.

The day before the British withdrawal from Palestine territories, Israel declared its independence on May 14, 1948 and the Arab-Israeli conflict became more severe.

Both the Israeli Zionist project and the Palestinian national movement have similar desires for self-determination and self-rule on the same territories, but they are neither willing to live together nor to cease the control of these territories.

The region witnessed several wars between the Arabs and Israelis: the 1956 Suez Crisis after the Egyptian leader Nasser's nationalization of the Suez Canal; the 1967 Six-Day War due to Israel's attack on Egypt and Syria; the 1973 Yom Kippur War due to Egypt and Syria's desire to regain their territories; and the 1982 and 2006 Lebanon Wars.

In 1979, the Camp David Accords were signed between Israel and Egypt, ending the 30 years-old conflict thanks to mutual recognition of two parties and Israel's return of the Sinai Peninsula to Egypt. However, Israel retained the control of Golan Heights, Gaza Strip, West Bank and Jerusalem, the territories which it had occupied after the 1967 Six-Day War, and this situation constituted major problems and contentions between the Arabs and Israelis.

The occupation of Israel and its existence, regarded as an injury for the Arab world in general, gave rise to Pan-Arabism, Nasserism and Baathism in the region in order to defeat Israel and unify the Arabs. Moreover, the Arab world regarded Israel as the West's continuing neo-colonial project in the region; for them the Western actors supported Israel for their own neo-colonial ambitions (Hiltermann, 2019: 36-37).

Arab leaders cooperating with Israel are depicted as going light on Zionism or as traitors, and because of that they have often refrained from negotiating with Israel, while the King Abdullah and Anwar Sadat's assassinations show the severity of animosity between the parties (Rossi, 2020: 31).

Israeli-Palestinian relations demonstrate similar, if not worse, patterns of conflict and animosity. In 1987, the first Intifada took place, in which hundreds of thousands of Palestinians revolted against the Israeli government in the West Bank and Gaza Strip, due to the Palestinian desire for self-determination and governance.

The escalation of conflict in the contested territories paved the way for the Oslo Accords between the Palestinian Liberation Organization (PLO) and Israel. Oslo I Accords were designed to prepare the Palestinians for self-rule in the West Bank, the city of Jericho and the Gaza Strip within five years. This agreement signified mutual

recognition of the PLO and Israel, thus enabling possible cooperation between the two parties.

Oslo II Accords issued the Israeli withdrawal from West Bank's 6 cities and 450 towns in order to increase Palestinian self-rule (Council on Foreign Relations, 2022). Despite these peace talks, no progress took place in the peace process between the two parties and Israel continued to maintain its control over the occupied territories. Although these talks looked promising for the region, main problems remained unresolved: the fate of Palestinian refugees; the fate of Jewish settlements; the status of Jerusalem; and whether independent Palestine state will be established or not.

In that tense atmosphere of the stalemate in the peace process and Israel's control of the West Bank, Israel's former Prime Minister Ariel Sharon's challenging visit to al-Aqsa mosque triggered the Second Intifada which lasted from 2000 to 2005 (Shlaim, 2016: 299). Israel began to construct barrier walls in the West Bank in order to mainly prevent Palestinian extremist groups' suicide attacks in the Israeli side. The conflict intensified due to the militant Hamas group's victory in 2005 and 2006 elections (Dowty, 2012: 181). Hamas's harsher stance against Israel caused three full-scale wars in the Gaza Strip in 2008, 2012 and 2014, as a result of which more than 4,000 Palestinians and more than 100 Israelis lost their lives; and in these conflicts, Palestinians deployed rocket attacks while Israelis benefited from technologically advanced airstrikes, and Egypt and Israel cooperated to impose a blockade on the Gaza Strip so as to prevent Hamas from receiving economic and military support from the Arab states (AP News, 2021).

This conflict-prone situation in the region has not changed much up till now and Israel continues its unilateral policies in the occupied territories where Jewish settlers' numbers have increased day by day.

These intractable conflicts between the Arabs and Israel on the one hand, and the Israelis and Palestinians on the other hand make water cooperation difficult to achieve. The Middle East water politics is largely depicted as a zero-sum game in which country A's water gains are regarded as country B's water losses (Sümer, 2014: 84). For example, Israel regards Lebanon's water diversion project in the Wazzani River as a *casus belli* since this project is alleged to decrease water availability to Israelis (Kibaroglu, 2016: 4), and similarly Turkey's South-Eastern Anatolian Project

(GAP) is seen by Syria and Iraq as a reason for the decrease of water supply in their countries.

This is a pattern in the region because Israel, Turkey and Egypt, having advantageous positions thanks to their power asymmetry in economic and military terms, prefer to manage their respective rivers unilaterally, and the bilateral agreements signed between powerful and less powerful riparian states mostly reflect this unequal power status in the region.

Multilateral water negotiations in the region date back to the 1950s. The U.S. Special Ambassador Eric Johnston drew the Johnston Plan for the Jordan River basin in 1955 in order to increase cooperation and stability among the riparian states. This plan aimed to achieve reasonable and fair share of the Jordan River's water resources based on the agricultural needs of riparian states. According to this plan, Israel would receive 31.1 %, Jordan 55.9 %, Syria 10.3 % and Lebanon 2.7 %. Although countries did not sign a formal agreement, they conformed to these allocations until the 1994 Jordan-Israel peace treaty (Joffé, 2016: 63).

Generally speaking, Syria and Lebanon do not tolerate Israeli gains from its cooperation with Arab states and do not want to recognize Israeli sovereignty. Moreover, 1955 Johnston Plan does not consider demographic changes, changes in water availability, ground waters of the Mountain Aquifer, water rights of Palestinians and unstable political alliances, all of which make it an outdated plan (Mukhar, 2006: 66-67).

Thanks to the positive political environment in the early years of the 1990s, the Madrid Peace Process commenced in 1991 and the Multilateral Working Group on Water Resources including Jordan, Israel and Palestine conducted negotiations over water issues since they all agreed that economic development, water supply and environmental issues needed to be addressed. Countries worked on technical water cooperation between 1992 and 1996, while they refrained from discussing political issues (Kramer, 2008: 12). Thanks to this Madrid Peace Talks, Israel and Palestinian Liberation Organization, and Israel and Jordan signed bilateral agreements. However, due to political rivalries, for example, Syria and Lebanon's refusal to sign any treaty with Israel, riparian states were not able to sign a multilateral agreement that included

all of the conflicting parties of the Jordan River. Thus, Israel maintained its hegemonic position in this basin with limited and inefficient bilateral cooperation.

2.5. ISRAEL-PALESTINE WATER COOPERATION

On 15 September 1993, Israel and Palestine signed the Declaration of Principles, or the so-called Oslo I Accords. During the talks water issues received great attention, as signatories believed that water has a potential to increase cooperation between the parties. Many water-related projects between Palestine and Israel were inaugurated with the DOP and these projects received large amounts of funding (Aggestam and Strömbom, 2019: 147).

Annex III of the DOP demands the creation of the Water Development Programme through which experts from both sides are tasked with managing water projects in the West Bank and the Gaza Strip, and they have the responsibility to prepare proposals for studies and plans on equitable water distribution and water rights of the Palestinians and Israelis (Mukhar, 2006: 69; Waintraub, 2009: 27). Moreover, Oslo I called for the creation of the Palestinian Water Authority (PWA) in order to increase economic development and Palestinians' self-management of its water resources.

However, the DOP includes general principles rather than detailed decisions and rules; specific measures and proposals on which states can agree do not exist (Aggestam and Sundell-Eklund, 2014: 14). The DOP does not clearly underline water rights and equitable water distribution, which are highly disputed between the parties and which seem crucial especially for the Palestinian side. Furthermore, Oslo I Accords regard water as an economic issue, and cooperation is desired to increase economic development while its security dynamics for humans and nature do not receive attention (Waintraub, 2009: 27).

On 28 September 1995, Israel and the Palestinian Liberation Organization signed another interim agreement, called Oslo II Accords, which gave the Palestinians a limited self-rule in the Gaza Strip and West Bank (Brooks et al., 2020: 25). Article 40 of the Oslo II have provisions for water management, including the creation of Palestinian Water Authority and the Joint Water Committee (Brooks et al., 2020: 25;

Yoffe and Wolf, 1999: 207). Palestinians were given the responsibility to manage their water infrastructures in Areas A and B in the West Bank, while a Joint Water Committee was established to manage and protect shared water resources, and treat and re-use waste water (Aggestam and Sundell-Eklund, 2014: 19; Brooks et al., 2020: 25-27).

This committee comprises equal representatives from each side and decisions are made by consensus, thus each side has a veto right to block water-related projects. Moreover, the JWC gives licenses for new wells and other water-related projects; it supervises water extraction rates; it works to prevent illegal syphoning of water resources; and it plans and controls the construction of water infrastructure projects (Aggestam and Strömbom, 2019: 147; EcoPeace Middle East, 2019: 26-27).

This water regime charges countries to pay the costs of their pollution of rivers. This provision was included especially with the demand of Israeli side since the Palestinian waste runs into Israeli territories. However, Palestine does not want to build waste water treatment plants due to its lower environmental standards and low economic capacity, lack of enforcement of the Oslo II and its advantage of being an upstream riparian state (Schierholz, 2016: 5). In this vein, Israel puts pressure on Palestine to build treatment plants as it conditions the approval of new wells on the construction of these plants.

Oslo II Accords enabled Palestine to extract 23 Mm³/y from the Mountain Aquifer for its current needs, and to extract up to 80 Mm³/y for its future needs from the Eastern Aquifer and other resources in the West Bank (Selby, 2013). Totally, Israel would use 483 million cubic meters (MCM), while Palestine would have access to 182 MCM (Brooks et al., 2020: 26).

Although the parties agreed on water quantities over the Mountain Aquifer, the issue of water rights was postponed to final status agreements (Yoffe and Wolf, 1999: 207). This interim agreement was not replaced after five years due to increasing political tensions and the Second Intifada (2000-2005).

Thus, currently the Oslo II water regime prevails and determines water management rules in the region. However, the regime has been the subject of many criticisms as it mostly favors the Israeli interests over the Palestinian ones.

Therefore, it is crucial to show the weaknesses of this water regime in order to help comprehend the current status quo in the region.

First of all, JWC's decisions require long and time-consuming procedures which decrease its efficiency. While decisions are taken jointly, each side unilaterally manages their water and sewage projects. Palestinians complain that their water projects are often rejected by Israelis in the JWC meetings, while Israel claims that it has technical and scientific reasons to decline these projects (Kramer, 2008: 13).

Nevertheless, Israel rejects Palestinian projects mostly due to political reasons and it wants to restrict the Palestinian access to water resources in Area C of the West Bank; Israel does not recognize nearly 90 % of Palestinian villages in Area C; and thus, it is impossible for Palestinians to receive approvals for their water projects in these zones since the approval authorities are JWC and Israeli Civil Administration (Selby, 2013: 9-11).

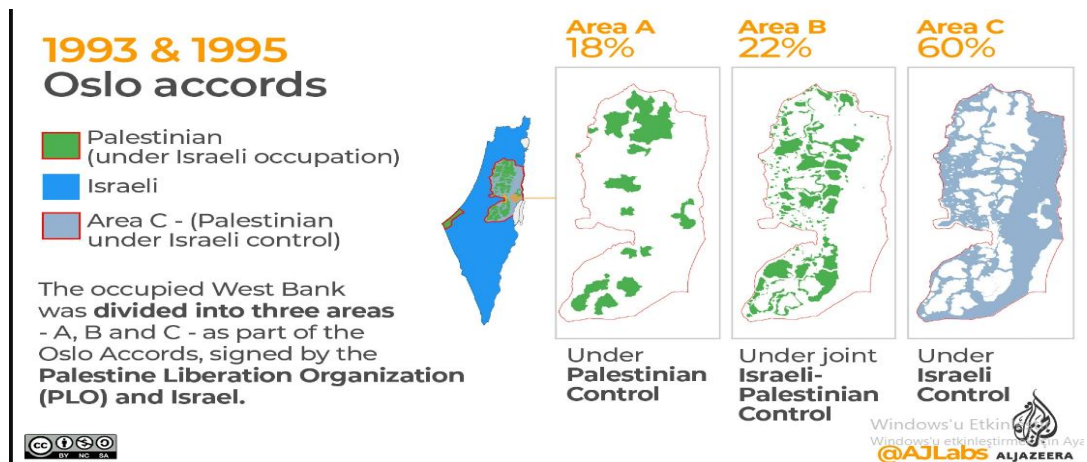
Nonetheless, Area C is the most important part of the West Bank for Palestine where its water facilities and waste water treatment plants should be located and where almost all productive areas for drilling wells exist (Selby, 2013: 9).

Therefore, with Oslo II Accords, Israel has guaranteed its unilateral and unchecked water management in around 80 % of the West Bank, while it agreed to jointly manage roughly 21 % of the West Bank's remaining parts (Zeitoun, 2007: 112).

Countries jointly manage only the Mountain Aquifer's parts which lie within the West Bank, and Israel unilaterally uses water from the other parts of the Mountain Aquifer, which are located inside the Green Line¹ where JWC has no authority (Brooks et al., 2020: 26).

¹ Green Line demarcates the borders between Israel and its neighbors (Lebanon, Syria, Jordan and Egypt) following the 1948 Arab Israeli War. It refers to pre-1967 borders or 1949 Armistice Line and separates the pre-1967 borders of Israel from the currently occupied territories of Palestine.

Figure 2: Oslo Accords' Territorial Demarcations



Source: Haddad, M. (2020). Palestine and Israel: Mapping an annexation. Retrieved from: <https://www.aljazeera.com/news/2020/6/26/palestine-and-israel-mapping-an-annexation>

There is no cooperation over the Jordan River and the Coastal Aquifer, and other riparian states are not included in this water regime established by the Oslo II. Furthermore, Oslo II Accords have other double standards: Palestine is prohibited from unilateral construction of new water infrastructure in Areas B and C due to Israeli pressure and donors' demand for abiding by the JWC, while there exists no limitation for Israel's unilateral water management in the West Bank (Selby, 2013: 11).

Figure 3: Shared Water Resources Between Israel and Palestine



Source: Zeitoun, M. (2007). The conflict vs. cooperation paradox: fighting over or sharing of Palestinian-Israeli groundwater?. *Water International*, 32(1): 105-120, p. 109.

On the other hand, Palestine needs to approve nearly all of the Israeli settlement water infrastructure projects in order to receive permissions for Palestinian water projects and drilling wells in the West Bank (Selby, 2013: 17). However, this contradicts its aspiration for achieving Palestinian statehood in the West Bank. Thus since 2010, Palestine did not participate in the JWC meetings and asserted that JWC enables Israel to maintain its settlement policy, domination and colonization over the Palestinian people (Schierholz, 2016: 4-5).

This current water regime reflects and furthers the interests of Israel, reinforcing the Israeli hegemony over the water resources it occupied in the 1967 Six-

Day War. Israel neglects Palestinian demands for water rights in the West Bank for its national security. Due to its power superiority Israel successfully coerced the Palestinian delegation to sign Oslo II Accords, in which Israel's needs-based water allocation argument prevails and countries receive water in accordance with their needs.

The power asymmetry is crystal clear: Israel has advanced economy and technology that enable it to desalinate water and import water-intensive food to fight against water scarcity, while its military power far exceeds the military capabilities of the Palestinian side. This superiority in water technology enables Israel to sell desalinated water to Palestine at often high prices.

On the other hand, Palestine, with limited water and low-level water technology, is much more dependent on cooperation than Israel due to the former's needs to drill more wells in the West Bank to increase water quantity.

This water regime seems problematic for the Palestinians, since their aim is to establish a nation state with their own water rights and self-water management in the Gaza Strip and in almost all of the West Bank areas. However, Israel prevents them from developing their own water infrastructure, most importantly in Area C of the West Bank.

Interestingly, the international donor community and NGOs in the region support the Israeli approach and the Oslo II needs-based water regime rather than promote the Palestinian rights-based argument (Aggestam and Sundell-Eklund, 2014: 18; Selby, 2013: 20-21).

Between the years of 2000 and 2010, no official Joint Water Committee meeting took place because of the Palestinian Authority's rejection of Israel's water projects for its settlements, and Palestinians were weary of time-and-money consuming approval procedures of JWC and Israeli Civil Administration (Brooks et al., 2020: 29; EcoPeace Middle East, 2019: 27).

Consequently, in January 2017, JWC was reformed by Palestine and Israel: water allocation remained the same in the West Bank, while the Palestinians were still required to get approvals from Israeli Civil Administration for their water projects in Area C; however, Palestinian water projects in Areas A and B would advance without prior approval from JWC (Brooks et al., 2020: 29; EcoPeace Middle East, 2019: 27).

Also, the parties agreed on a 50 % increase in the water sold to the Gaza Strip and Israel accepted to increase water sale to the West Bank by 23 MCM/y (EcoPeace Middle East, 2019: 27).

However, this revival of JWC does not change the status quo of Israeli hegemony in the region and Palestinians still urge for water rights and self-rule in the West Bank region, to which Israelis have no toleration and empathy.

2.6. ISRAEL-JORDAN WATER COOPERATION

Israel and Jordan have maintained their water cooperation and continuously negotiated water allocations over the Yarmouk River and Jordan River basins through their secret picnic table talks since the 1950s. The UN-led water negotiations and the US mediation created habits of cooperation and understanding between these otherwise hostile countries and they abided by the 1955 Johnston Plan's water allocations until they signed the 1994 Peace Treaty (Jägerskog, 2007: 199). According to this plan, Israel and Jordan would respectively use 31.1 % and 55.9 % (including Palestinian water allocations) of the Jordan River Basin's water resources.

Even though the Johnston Plan determined *de facto* water allocations between the parties, the failure to formalize it led Jordan to operationalize its Greater Yarmouk Project which involved the construction of two dams for water storage and hydroelectricity production. Moreover, Jordan and Syria jointly planned to build a diversion plant in order to prevent the headwaters of Jordan River from reaching to Israel, but due to their disagreement and lack of sufficient funding this project was postponed; and later in 1987 Syria allowed Jordan's construction of Unity Dam on the Yarmouk River in return for hydroelectricity it receives from this dam (Fischhlendler, 2008: 96).

On the other hand, since the 1950s Israel has been working on developing its water infrastructure thanks to its economic and technological capacity, such as building desalination and wastewater treatment plants, and it completed its National Water Carrier in 1964, with which it successfully integrated its water resources across the country and tripled its water utilization from the Yarmouk River (Fischhlendler, 2008: 96).

Notwithstanding these mutually antagonizing developments over the two rivers, Israel and Jordan always aimed to sign a peace treaty which would also include water provisions. In their negotiations until 1994, Jordan was unwilling to tolerate Israeli water extraction from the Yarmouk and it regarded Israel's preclusion of Jordan to build a dam on the Yarmouk River as a violation of its vital water interests (Libiszewski, 1997: 8). While Israel wanted to negotiate water allocations on the basis of the future needs of parties, the Jordanians insist on their historical water rights (Yoffe and Wolf, 1999: 207).

The two parties' water problems mainly consist of the concerns over water distribution and construction of water facilities (for storage and diversion of water) on the Jordan and Yarmouk River basins. Israel's capacity to desalinate water and treat wastewater along with its power asymmetry enable its hegemony over the water talks.

In this regard, Israel is able to produce over 600 mcm of desalinated water per year thanks to its five desalination plants and it produces circa 400 mcm of water from wastewater per year. Jordan, on the other hand, has no sufficient capacity to desalinate and it is only able to provide 122 MCM/year water out of its wastewater (Talozi et al., 2019: 924-925)

Since Jordan does not have sufficient technology in water management and is desperate for more water for its domestic needs, it is much more willing to cooperate; for Israel cooperation with Jordan is crucial, because Jordan can act as a buffer zone against the Arab states, especially against Syria; thus, Israel chooses to tolerate additional water quantity to be allocated to Jordan from the Yarmouk River, while it seeks to reduce Jordan's share from the Jordan River basin with the 1994 Peace Treaty; and Israel successfully deployed its desalination capacity to provide additional water for Jordans and it increased its control over the Jordan Basin with this treaty (Rossi, 2020: 32; Sánchez, 2019: 2; Zeevi, 2020: 2-3).

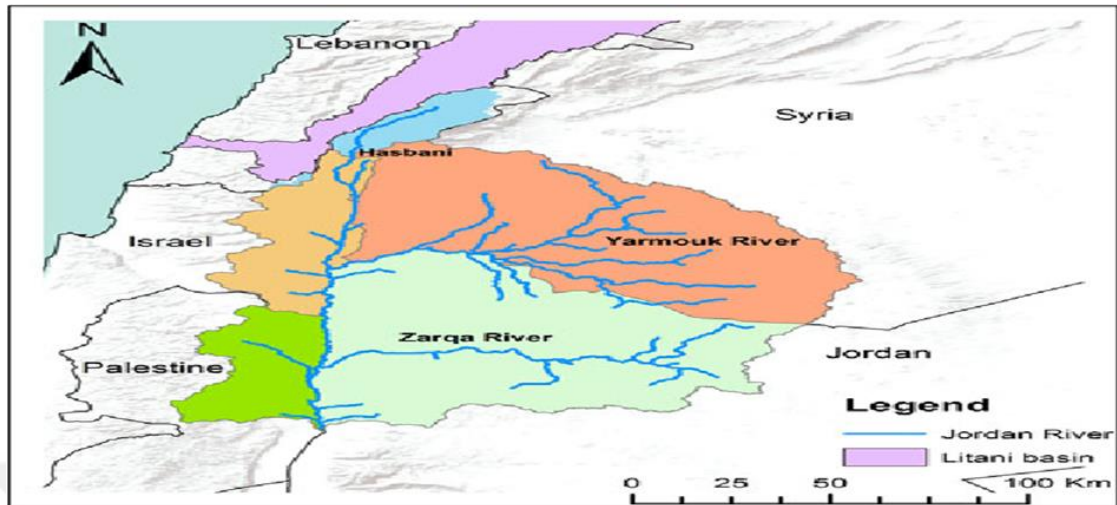
On 26 October 26 1994, Israel and Jordan signed a peace treaty, ending their 46 years of conflict. Article 6 and Annex II of this treaty comprise water provisions. 1994 Peace Treaty defines water allocations of both sides in the Yarmouk and Jordan River Basins and Wadi Arava groundwaters. It also stipulates the parties to mitigate against water pollution (Yoffe and Wolf, 1999: 206). The parties are held responsible for their water activities in their own territories and these activities should not harm

the other side's water quality and quantity. Both sides are required to notify each other before conducting a new project and the treaty calls for water-related data exchange between the parties (Haddadin, 2011: 179; Talozzi et al., 2019: 917).

Israel and Jordan agreed to establish a Joint Water Committee to implement and monitor the water provisions of the treaty, to resolve water-related disputes and to conduct joint research and development projects; and this committee is composed of three members from each side with an equal voting right (Rossi, 2020: 32-33; Schierholz, 2016: 4). Both parties recognize that their water resources are not sufficient to satisfy their needs and thus they agree on finding additional water supply such as through desalinated or recycled wastewater. The main proposed solution was desalination of sea water and in this regard, they planned the Red Sea-Dead Sea Water Conveyance Project through which up to 2 billion cubic meters of water would be transferred from the Gulf of Aqaba in the Red Sea to the Dead Sea via multinational pipeline (Brooks et al., 2020: 75; Rossi, 2020: 33).

The 1994 treaty includes several water allocations beyond the water resources mentioned above. Israel is allowed to divert 12 mcm/year of water in the summer and 13 mcm/year of water in the winter from the Yarmouk River, and the remainder of the Yarmouk flow are left to Jordan's use. However, while Israel has a fixed diversion quantity (25 mcm/year), Jordan's supply is open to constant change due to climate changes and might come under risk particularly during the periods of drought (Talozzi et al., 2019: 916). For instance, between 1998 and 2000, due to severe droughts, the parties experienced disagreement over water distribution, and this problem stems from the fact that the treaty does not have any provision on what to do with allocations when droughts occur (Fischhlendler, 2008: 99; Jägerskog, 2007: 200).

Figure 4: Yarmouk River



Source: Comair, G.F., McKinney, D.C. and Siegel, D. (2012). Hydrology of the Jordan River Basin: Watershed Delineation, Precipitation and Evapotranspiration. *Water Resources Management*, 26, p. 4283.

Moreover, since Jordan is a downstream riparian state in the Yarmouk River and lacks sufficient military power to coerce Syria, the upstream riparian Syria has no limits to extract water from this river. Syria's utilization had been originally planned to rise over 244 mcm/year and this would make Jordan's goal of 377 mcm/year of water utilization from that river as unachievable (Libiszewski, 1997: 12). Currently, Syria utilizes 335 mcm/y of water from the Yarmouk River while Jordan's extraction amount from the same resource equals only to 98 mcm/y of water (Zeitoun et al., 2019: 1103). This is a very unfavorable situation for Jordan and is far away from its originally planned water supply target, i.e., 377 mcm/y of water from the Yarmouk River.

Jordan allows Israel to store 20 mcm of the Yarmouk River's waters in the winter on condition that Israel releases the same amount of water to Jordan in the summer from the Jordan River (Haddadin, 2011: 181). Israel accepts to supply Jordan with 10 mcm/year of water from the Lake Tiberias until their desalination project is completed (Rossi, 2020: 32).

Even though the 1994 treaty asks the parties to find an additional 50 mcm/year of potable water for Jordan, it does not indicate who will undertake the costs and how

they will find additional water (Talozi et al., 2019: 916). In practice, Israel supplies Jordan with 25 mcm/year of water rather than the proposed amount. Israel succeeds to decrease Jordan's utilization of Jordan River's water resources from 100 mcm/year, determined in the 1955 Johnston Plan, to 30 mcm/year, increasing its control over this river (Libiszewski, 1997: 11).

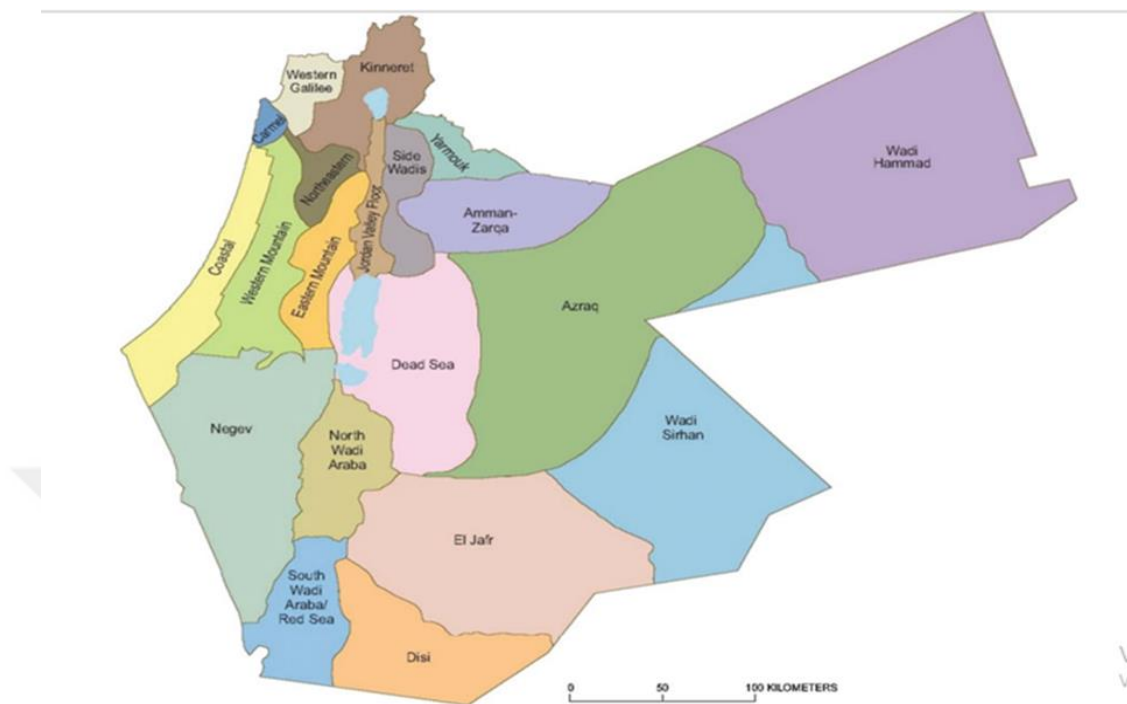
The 1994 treaty enabled the construction of two storage dams on the lower Jordan River and on the Yarmouk River. However, while the size of the dam on the lower Jordan River was determined to have a minimum average of 20 mcm, the size of the dam on the Yarmouk River was not specified due to the Israeli fear that Jordan would utilize more water without sharing it with Israel (Fischhlendler, 2008: 101).

Israel and Jordan also agreed to build a desalination plant to supply potable water to Eliat in Israel and Aqaba in Jordan (Aggestam and Sundell-Eklund, 2014: 12).

Furthermore, on the lower Jordan River, Jordan is gifted with an annual water quantity which is equal to Israeli utilization on the condition that Jordanian extraction does not harm Israeli use. However, what causes harm to Israel is not clarified in this agreement (Fischhlendler, 2008: 101).

The 1994 Peace Treaty also regulated the utilization of groundwater in Wadi Arava. It gives the sovereignty of this area to Jordan; Israel maintains its 10 mcm/year of water extraction from the wells on the Jordanian part of Arava; Israeli farmers continue to cultivate Al-Ghamr area in Wadi Arava; and in return Jordan purchases water from Israel (Elmusa, 1995: 65; Talozi et al., 2019: 917).

Figure 5: Wadi Araba/Arava and its Surroundings



Source: Kool, J. (2016). Sustainable Development in the Jordan Valley: Final Report of the Regional NGO Master Plan. Springer Nature, p. 12.

The treaty has been subjected to several criticisms from both the academics and policymakers. For instance, problems between the parties erupt mainly due to the ambiguous water provisions in the treaty (Kramer, 2008: 13). 1994 Treaty's planned projects do not specify the exact location, capital costs and time of construction, rendering the initiation/launching of projects difficult (Fischhlendler, 2008: 97). The treaty does not also indicate what happens to water distribution during the periods of drought (Kibaroglu, 2016: 8).

In general, the 1994 Peace Treaty between Jordan and Israel was expected to bring 7 percent increase in Jordan's water supply in the short term and up to 20 percent increase in the long term, if all the planned projects were completed (Libiszewski, 1997: 12). Nevertheless, cooperative projects linking the Jordanian and Israeli economies and infrastructure failed to realize, and thus, the full implementation of the treaty has not been achieved (Sánchez, 2019: 2-3; Zeevi, 2020: 3-4). Desalination plant

around the Lake Tiberias and the two dams on the Yarmouk and Jordan Rivers did not materialize, because international donors refused to give financial support due to the persistence of conflicts in the region (Haddadin, 2011: 184). The most important desalination project, Red Sea-Dead Sea Initiative, still remains as a draft plan (Sánchez, 2019: 3), and Israel prefers the pipeline flowing from the Mediterranean to the Dead Sea that passes only through the Israeli territory as it is less costly and more profitable (Sánchez, 2019: 3; Zeevi, 2020: 3-4).

Political conflicts have also hampered the water cooperation of parties. The assassination of Yitzhak Rabin, the Israeli peacemaker, and the Likud Party's ascendance to power; the Second Intifada (2000-2005); Israel-Lebanon War in 2006; and the Gaza Wars in 2008, 2012 and 2014 all hindered the positive atmosphere of water relations between Jordan and Israel.

Increasing violence and conflict between Israel and Palestine in particular turned Jordanians against any cooperative initiatives with Israel. Real peace between Jordan and Israel is alleged to appear only after a political solution to the Israel-Palestinian conflict is found; otherwise, both sides will continue to blame each other for the failure of the 1994 Peace Treaty, and sustainable peace will not be achieved in the near future.

Projects and ensuring additional water supplies constituted the main motivations of the Jordanian part to sign and comply with the 1994 Treaty. Thus, the deterioration of the relations between the parties is mainly due to the failures to complete such initiatives. While Israel is able to restrain the Jordanian utilization from the Jordan River to 30 mcm/year, maintains its utilization of wells in Arava and secures its 25 mcm/year of water in Yarmouk, Jordan abandons its desire to increase its share over the Jordan River for the sake of planned projects which are not completed and it could not have 50 mcm/year additional water until today.

This situation has increased the unequal water allocation between the parties and along with that Israel's hydro-hegemony in the region. Although bilateral agreements between Israel-Palestine and Israel-Jordan have not brought the desired peace and cooperation, and conflicts continue in the region, civil society groups and non-governmental organizations (NGOs) have got involved in environmental peacebuilding activities since the 1990s.

2.7. CONCLUSION

This chapter firstly showed how shared water management might increase peace and cooperation among adversaries along with conditions for successful peacebuilding via water cooperation. Then, it illustrated water scarcity and crisis in the Middle East in order to indicate the severity of water problems and to point out that water cooperation is essential to mitigate them.

Afterwards, it highlighted the intractable and longstanding Arab-Israeli and Israeli-Palestinian disputes to reveal the complex political circumstances surrounding the water issue. It was shown that several multilateral and bilateral (Oslo II Accords and 1994 Jordan-Israel Peace Treaty) cooperative water initiatives were realized notwithstanding the conflict-prone nature of the region, but they have had nominal success so far.

The next chapter critically evaluates the environmental peacebuilding of EcoPeace Middle East, an environmental NGO, through the lens of political ecology. It makes a critical political analysis with a view to underlining the necessary conditions for successful environmental peacebuilding and water-peace nexus.

CHAPTER THREE

CRITICAL EVALUATION OF ECOPEACE MIDDLE EAST'S GOOD WATER NEIGHBORS PROJECT

3.1. INTRODUCTION

This chapter critically looks into EcoPeace Middle East and its projects, particularly Good Water Neighbors (GWN) initiative. This critical political analysis involves examining the dominant positions and policies of Palestine, Jordan and Israel together with the policies and positions of GWN staff and activists. The aim is to illustrate how depoliticized environmental peacebuilding efforts of EcoPeace reproduces the status quo that leads only to a limited success of GWN. The analysis benefits from the perspectives of political ecology which underlines that politics should be considered or included while performing environmental peacebuilding.

Following this analysis, the chapter investigates briefly whether conditions mentioned in the literature for successful environmental peacebuilding exist in the Israeli-Palestinian context and in the GWN initiative.

3.2. ECOPEACE MIDDLE EAST AND GOOD WATER NEIGHBORS PROJECT

EcoPeace Middle East was founded on 7 December 1994 in Taba of Egypt as a trilateral environmental non-governmental organization (NGO). It has three offices located in Tel Aviv in Israel, Ramallah in Palestine and Amman in Jordan; and it employs 60 paid employees in three regional offices, which are led by three directors, in order to realize environmental peacebuilding and cooperation among Palestine, Israel and Jordan (EcoPeace Middle East, n.d.).

It concentrates on ensuring sustainable use of water, sustainable development, renewable energy production, building healthy food practices, water privatization, and amelioration of human security which is negatively affected by water crisis and scarcity (EcoPeace Middle East, n.d.).

This institution's projects are located along the Dead Sea, Arava Valley, Gulf of Aqaba, Yarmouk River, Jordan River and the Sea of Galilee, corresponding overall to the large part of cross-border water resources of three partnering countries.

EcoPeace's rationale underlines that transboundary water resources can only be preserved by regional cooperation which might increase trust, understanding and peace among former adversaries (Carnevali, 2021: 28-30; Schierholz, 2018: 18-19). It aims to enhance environmental cooperation among Jordanian, Israeli and Palestinian communities in order to protect shared water resources and to achieve sustainable development and peace in the region. Therefore, it defines itself as an environmental peacebuilding actor and believes that cooperation in environmental issues would spill over other spheres and sectors such as politics, economy and energy.

EcoPeace seeks to build peace among communities of partnering countries by empowering them, and facilitating dialogue, understanding and cooperation among community members of Jordan, Israel and Palestine. It raises awareness on water-related issues to bring solutions to them.

Education along with the creation and accumulation of collective knowledge remain at the center of every project (Harari and Roseman, 2008: 16). EcoPeace seeks to increase environmental knowledge and skills of communities, mayors and adults by hiring social workers, teachers and other staff in order to improve environmental conditions and to provide sustainable solutions that concern the interests of all parties (Harari and Roseman, 2008: 16-18).

Moreover, it also provides financial support to these communities and seeks to change negative perceptions and stereotypes of people in the region so as to prepare them for sustainable peace and cooperation (Harari and Roseman, 2008: 16-18).

EcoPeace utilizes a combination of a top-down advocacy strategy and a bottom-up grassroots approach in its environmental peacebuilding initiatives. Top-down advocacy comprises the preparation of policy papers which illustrate the severity of transboundary environmental problems and holding conferences with a view to highlighting both the self-interests of each party and mutual gains for all through cooperation (Harari and Roseman, 2008: 17-18; Schierholz, 2018: 19).

Policy papers are designed by the participation of three offices in order to create a common regional vision for solving environmental problems and conflicts in the

region (Harari and Roseman, 2008: 18). Policy papers prepared by researchers are communicated and explained to top-level policymakers, the publics and media of the three countries by EcoPeace staff and these papers are explained by Jordanian staff to Jordanian population, Israeli staff to Israeli population and Palestinian staff to Palestinian population in order to maximize local influence (Schierholz, 2018: 19).

The top-down advocacy strategy includes the Water Cannot Wait project, the Jordan Valley NGO Master Plan and Water-Energy-Nexus project. Through its Water Cannot Wait campaign, EcoPeace puts pressure on Israel and Palestine to solve water allocation and management issues before the final status talks due to the growing water crisis in the Gaza Strip and the West Bank, and the massive pollution in the region (Brooks et al., 2020: 71-79). As part of the Jordan Valley NGO Master Plan, EcoPeace conducts advocacy work for the rehabilitation of Jordan River and the Dead Sea, urging Israel, Jordan, Palestine, the international community and the donors to implement the Master Plan and to remove the harmful practices of mineral extraction companies (Kool, 2016: 1-3).

Finally, EcoPeace also advocates for the implementation of Water-Energy-Nexus initiative, which is similar to the European Coal and Steel Community's experience, with a view to creating resource interdependencies among the partner countries. This initiative would enable Jordan to provide solar energy to Israel and Palestine, and the latter countries would supply desalinated water to Jordan, thanks to each party's comparative advantage in respective resources (Waxman et al., 2015: 81-84).

EcoPeace's bottom-up strategy, on the other hand, intends to educate and empower local communities of the three partner countries with a view to solving environmental problems of the region by means of increasing the capacity and knowledge of these communities so that they can play an active role in producing joint solutions; and to this end this strategy seeks to increase understanding, trust and cooperation among former adversaries via environmental education and projects on cross-border environmental resources (Djernaes et al., 2015: 75-76; Harari and Roseman, 2008: 17-18).

EcoPeace has three bottom-up initiatives in the region: Jordan River Faith-Based Initiatives; EcoCenter; and Good Water Neighbors Project. As for the former

initiative, since Jordan River has religious and cultural importance for all of the three Abrahamic faiths, EcoPeace aims to empower clergy and its members in the partner countries in order to stimulate rehabilitation efforts in this river basin (Schierholz, 2018: 105-106).

EcoCenter initiative, on the other hand, seeks to attract local, regional and international environmentalists, youth and tourists to visit EcoParks to observe environmental situation of the region and to learn environmental practices; it tries to enhance local eco-tourism and entrepreneurship; and to show a model about how Jordan River and its habitats might be preserved (EcoPeace Middle East, n.d.).

Good Water Neighbors (GWN) Project was initiated in 2001 by EcoPeace in order to find common solutions to transboundary water problems and to increase peace, cooperation and development in shared water resources of the Jordan River, Dead Sea, Mountain Aquifer and Coastal Aquifer.

GWN methodology is to identify cross-border communities, which have interdependencies on the same water resources, so as to promote dialogue, trust and cooperation among former adversaries for achieving sustainable management of water resources and sustainable peace on the basis of mutual gains (Djernaes et al., 2015: 75-76; Kramer, 2008: 23-24).

The GWN project is built on the assumption that mutual dependence on same water resources can urge adverse communities to find common solutions to their water-related problems, while cooperation benefits communities in economic and environmental terms, through which in a long period of time they can build shared identity and constant peace (Harari and Roseman, 2008: 18-19). Furthermore, GWN project gives support for building up water infrastructure and lobbies against the construction of separation barriers between Israel and Palestine (Schilling et al., 2017: 124).

GWN's Faith-Based Initiative aims at the rehabilitation of Jordan River by highlighting its religious and cultural significance and empowering clergy and their members; while GWN's Green Economy Initiative promotes sustainable development and eco-friendly economic activities of regional businesses (Schierholz, 2018: 20).

The GWN project encompasses 28 communities: 9 Israeli, 11 Palestinian and 8 Jordanian communities (FoEME, 2014). Communities sharing same water resources

are paired with each other on the basis of their territorial adjacency in order to stimulate cross-border dialogue and cooperation.

GWN project has a twofold strategy: its bottom-up strategy targets youths and adults in communities with an aim to empower them; and its top-down approach includes advocacy work with regard to mayors of communities in order to receive their support for GWN's initiatives (Ide and Tubi, 2020: 4-5).

The first stakeholders in this project are young people within partnering communities. The GWN project educates the youth to improve water situation in their communities by supplying necessary tools and knowledge for them. This initiative seeks to facilitate communication and trust-building among young people through water-related activities and through developing understanding about other side's interests and perspectives (Harari and Roseman, 2008: 19; Ide and Tubi, 2020: 4).

GWN's local staff engages with youths and adults via youth clubs, community centers, local schools and community organizations, and uses a joint textbook which comprises water-related issues, called as WaterCare (Harari and Roseman, 2008: 19).

GWN educates young Water Trustees about water use, conservation and pollution; and it procures them with conflict resolution, leadership and activism skills with a view to water cooperation and water resources' rehabilitation (Djernaes et al., 2015: 75; Schilling et al., 2017: 124).

The youth in schools are educated to build rainwater harvesting systems and ecological gardens in which they grow local plants; they are given lectures in their field trips; they conduct surveys on water consumption levels; they help clean rivers; they find water-related hazards; they play a crucial role in building eco-parks; and they help raise awareness on water crisis in the region (Djernes et al., 2015: 75; Kramer, 2008: 24).

Schools in participant communities are re-designed to save water. Students learn water saving by reusing rainwater or grey water for flushing the toilets and watering gardens, thanks to which they cut water consumption by 30%. GWN also has taught students to build ecological wetlands since 2007 that help clean sewage and wastewater in their communities. GWN initiative also educates primary and secondary school teachers about water-related issues and provides them with water conservation

materials (Djernaes et al., 2015: 75; Harari and Roseman, 2008: 19; Ide and Tubi, 2020: 6).

The second stakeholders in GWN project are adults in communities. Adult forums and meetings are organized to discuss and find solutions to cross-border water problems, where adults communicate with local planners and professionals for policy options and projects (Kramer, 2008: 23-25; Lubarr, 2005: 15-17). For example, adults in Tzur Hadassah community developed Neighbor Paths project through which tours are delivered along shared water resources to illustrate mutual dependence, common cultural heritage, the need for cross-border cooperation to preserve water resources and to promote local eco-tourism and local entrepreneurship by attracting local, regional and international visitors to these paths (Djernaes et al., 2015: 75; Harari and Roseman, 2008: 10).

Moreover, GWN supports Priority Initiatives, which are determined by the locals in accordance with their most immediate needs and regarded by those local communities as having the ability to reduce conflict between parties and to provide sustainable water management (EcoPeace Middle East, 2012: 4-5).

Third stakeholders in GWN project are local mayors within communities. Just because mayors function as a bridge between grassroots communities and top-level policymakers, their support for GWN projects matter for EcoPeace (Kramer, 2008: 24-25). Therefore, GWN initiative utilizes top-down advocacy work with mayors of participating communities to receive approval for implementation of its projects and, in this regard, it organizes mayoral conferences and municipal meetings about water issues and peacebuilding initiatives (Djernaes et al., 2015: 75-76).

As far as the success of its projects are concerned, EcoPeace's projects such as Good Water Neighbors have borne fruit: Israel agreed to release 9 mcm/year of water from the Sea of Galilee to the Lower Jordan River since 2013 for rehabilitating the Jordan River; and EcoPeace's advocacy work resulted in attracting more than \$100 million of funds for the construction of waste-water treatment plants in Jordan River Valley (Bromberg et al., 2020: 13).

Good Water Neighbors project resulted in participants' understanding of the water crisis and related issues, in learning other side's perspectives and in building a common ground for water cooperation (Djernaes et al., 2015: 76-78). The survey of

the Butterfly Effect between 2012 and 2014 indicated that 95% of the participants believed that cross-border activities and meetings increased trust, understanding and cooperation among participating communities (Butterfly, 2014: 12).

Participants reported that GWN provided a safe place to discuss different perspectives; it helped increase the youth's commitment to the environment, improved their water management and saving skills and environmental activism; and it helped decrease stereotypes and fears of the other (Djernaes et al., 2015: 77-78; Kramer, 2008: 25-26). Field staff appreciated the increased water supply in schools and claimed that ecological gardens contributed to environmental education and awareness on water reality in the region (Harari and Roseman, 2008: 20-22).

Mayors of the communities applauded the creation of rainwater harvesting systems and ecological gardens in schools; they signed two Memorandums of Understandings to commit themselves to undertaking water-related initiatives that benefit all parties such as developing peace parks and rehabilitating the Jordan River; and mayors from the Jordan River valley organized the Big Jump event in which they jumped together in Yarmouk River so as to raise awareness to the depletion of Jordan River and thus to illustrate the necessity for cooperation (Kramer, 2008: 20).

Municipalities in Tulkarem and Emek Hafer have begun to cooperate on olive mill waste since 2008 thanks to GWN initiative, as a result of which the waste from the mill is now transferred to the Israeli side for treatment (Harari and Roseman, 2008: 20). GWN project facilitated the construction of a sewage collection network between the Palestinian community of Baka el Sharkiya and the Israeli community of Baka el Gharbiya. With this network the Palestinian wastewater would be treated on the Israeli part lest Abu Naar Stream is polluted (EcoPeace Middle East, n.d.).

In addition, GWN program helped create a model farm in South Ghore community of Jordan. Local Jordanian farmers and Israeli farmers from Tamar Regional Council began to work jointly to increase agricultural productivity and to resolve the problem of houseflies (EcoPeace Middle East, n.d.).

GWN helped prevent Israel's further environmental destruction in Wadi Fukin; helped coordinate waste disposal in Baqa; and contributed to the improvement of water quality in Alexander River (Harari and Roseman, 2008: 21).

Even though EcoPeace and its GWN project have increased trust, understanding and cooperation among participating communities and helped realize several initiatives, events and policies, its environmental peacebuilding efforts overall has not received the broad support of the publics in Israel, Jordan and Palestine.

GWN's peacebuilding influence has been limited to a small scale, and its bottom-up and top-down strategies have not worked towards articulating the Palestinian side's interests, who continuously struggle for water rights, and to control their own water resources and infrastructure.

In this regard, the next section will critically evaluate the GWN's technical or depoliticized environmental peacebuilding initiative in light of perspectives from political ecology to argue that GWN project reproduces the status quo of unequal water distribution and power asymmetries between the parties.

3.3. PALESTINE'S DOMINANT WATER POSITION

The predominant Palestinian claim on water is such that there is enough water in the region which can be utilized both to improve the Palestinian water infrastructure and to overcome the water scarcity, but the Israeli occupation of Palestinian territories since 1967 has prevented Palestine from realizing these goals (Aggestam, 2015: 331).

For the Palestinian side, water crisis does not stem from climate change but from the Israeli control of water resources in the West Bank, which hinders both the water development and efficient water use of the Palestinians (Alatout, 2006: 610; Fröhlich, 2020: 19; Fröhlich, 2012: 135; Messerschmid, 2012: 440). In this vein, the main blame is on Israel for being the sole responsible actor that caused Palestinian water problems and underdevelopment (Jägerskog, 2009: 637; Ide, 2018: 248). The Palestinians regard water as a crucial means to establish an independent Palestinian state and, thus, want to control water resources nationally (Ide, 2017: 551; Shuval, 2007: 7).

The predominant Palestinian position promotes the myth of fellah or peasant who works on his land under any circumstances with perseverance and who does this by water availability. This agricultural myth is widespread among the population and

Palestinians have sought to protect their lands in occupied territories for survival and economic development (Fröhlich, 2020: 136).

Self-determination is related to Palestinian water rights (Kramer, 2008: 30) and the Palestinians give utmost importance to territorial control, sovereignty and property rights (Alatout, 2006: 616). The Palestinians believe that unequal water distribution, and Israel's veto of the Palestinians' water infrastructure development and drilling new wells constitute major threats for a future Palestinian state and its population. Therefore, they securitize Israel's control of most of the water resources in the region (Fröhlich, 2012: 135-137; Ide, 2018: 240).

In other words, the restrictions on the movements of people, confiscation of the Palestinian lands, and preventing Palestine from drilling new wells and controlling their water resources constitute the most existential threats for the Palestinians (Mason, 2013: 303).

The Palestinians politicize water problems with Israel since they blame the Israeli occupation for multiplying the water scarcity and, thus, increasing the Palestinian vulnerability to climate change (Messerchmid, 2012: 439-440).

The Palestinians consistently demand for controlling all of the water resources in the West Bank and Gaza Strip; they claim for regaining the control of the portion of water from the Jordan River that they had used before the 1967 occupation; and they call for more water allocation for their use in the West Bank in accordance with the Johnston Plan of 1955 (Aggestam and Sundell-Eklund, 2014: 17; Fröhlich, 2012: 135-137; Shuval, 2007: 7).

The Palestinians take international law and past historical water use as reference points to demand their water rights: the Helsinki Rules (1967) and the Convention on the Law of the Non-Navigational Uses of International Watercourses underline the principles of "equitable sharing of water" and "do no significant harm to other" (Aggestam, 2015: 335; Aggestam and Sundell-Eklund, 2014: 17).

Therefore, the Palestinians regard their water rights as the entry point of any water negotiation with Israel; Palestine rejects the Israeli claim for any portion of the West Bank's water and this is their red line in negotiations; Israel's claim that it has right to use water resources in the West Bank since it is the first country to utilize these resources is regarded as a unilateral decision which cannot be taken without the

consent of Palestine; and Palestine consistently demands compensation from Israel due to its control of Palestinian water resources and infrastructure (Ide, 2018: 239-240; Jägerskog, 2009: 636-637; Waintraub, 2009: 25-26; Weinthal and Marei, 2002: 464).

For the Palestinians, technical water cooperation mentality of international donors, NGOs and Israel are more threatening than the adverse effects of climate change; climate change is regarded as secondary to the Israeli occupation which is the main threat for them (Messerschmid, 2012: 440).

To accept technical water cooperation means surrendering the central goal of creating an independent Palestinian state (Fröhlich, 2012: 137). The Palestinians assert that water quality and quantity can improve only if they can control their own water; otherwise, improving the livelihood of both sides under the Israeli occupation will only continue to favor the Israelis at the expense of Palestinians (Alatout, 2006: 610). Only after the Palestinians attain their water rights, it becomes logical to develop new joint water resources and address water scarcity issues in technical ways (Waintraub, 2009: 25).

The Palestinians believe that discussing only water quantities and needs would reproduce the Israeli control over water resources, meaning it helps Israel keep its options to cut water and increase prices whenever it wants (Haddad, 2007: 50). In this regard, they rejected Israel's desalination projects or importing water, both of which were regarded as highly expensive for Palestine (Shuval, 2007: 7; Waintraub, 2009: 25-26).

In fact, Palestine deployed two parallel policies: at the international level Palestinian government officials condoned technical water cooperation to maintain international donor funds, while at the domestic level they made calls and arguments for Palestinian water rights to receive popular support, since Palestinians indisputably argue for controlling their water resources in the West Bank and Gaza Strip (Messerschmid, 2007: 20; Waintraub, 2009: 31).

Palestinian population strongly resent the unequal water allocation of the Oslo II which gives Israel control over 80% of the shared water resources; Israel's water consumption remains unchecked while Palestinian water infrastructure projects are often delayed and rejected by the Joint Water Committee and Israeli Civil Administration; and such bitter experiences of technical water cooperation have

bolstered the Palestinian population's demand for their water rights (Waintraub, 2009: 32).

In general, Palestinians argue that Israel securitizes water like other major issues such as Jerusalem and borders so as to legitimize checkpoints, military violence, blockings and construction of the wall, and therefore, it has no intention to solve the conflict (Fröhlich, 2012: 141). On the other hand, Arab nationalism which is ingrained within the Palestinian society makes cooperation of any kind difficult (Kramer, 2008: 30). Trust and understanding between Palestine and Israel might be built if Israel stops its violence and recognizes Palestinians' inflicted traumas stemming particularly from the 1967 occupation (Wessels, 2016: 1335-1336).

Therefore, any peace initiative should pay attention to the position of Palestinians on water rights and challenge the hydro-hegemony of Israel in order to find a common ground between these two hydro-rivals on the basis of international water law.

Otherwise, any project which only favors technical solutions in this region will fail to increase peace and cooperation between Israel and Palestine, and will just reproduce the status quo in favor of Israel (Aggestam, 2015: 337; Aggestam and Sundell-Eklund, 2014: 18).

3.5. JORDAN'S DOMINANT WATER POSITION

The Jordanians claim that water scarcity is man-made and partly due to Israel's independence in 1948, which obliged Jordan to accept over 450,000 Palestinians to its territory; for Jordan, those Palestinian refugees increased the pressure on irrigation and its limited water availability. The Palestinian refugees in the West Bank utilize Jordanian water while Israel controls Palestinian water resources, and this situation gave rise to Jordan's resentment against Israel (Jägerskog, 2009: 637).

Jordan consistently demanded the recognition of their water rights in the Yarmouk and Jordan Rivers and building its own dam on the Yarmouk. However, Israel rejected its water rights claims especially on the Jordan River which it wants to keep under its exclusive control (Fischlender, 2008: 102).

Although Jordan's demands for water rights were neglected by Israel, it agreed to sign the 1994 Peace Treaty because the Jordanian elites thought that cooperation with Israel would bring US economic and military support as well as international donor assistance (Jägerskog, 2009: 637; Rossi, 2020: 32).

Moreover, Jordan regards water as key to their economic development. Cooperation with Israel, they believe, would bring improvement to their water treatment systems which, in turn, would increase its water quantity (Kramer, 2008: 30). Especially, Jordan wants to increase its water quantity for agricultural use due to strong domestic support for self-sufficiency, even if it means wasting water (Jägerskog, 2009: 637).

Jordanian elites' desire for cooperation resulted in the 1994 Peace Treaty that supposedly resolved all water issues between Jordan and Israel. However, cooperative projects linking Jordanian and Israeli economies and infrastructures failed to materialize (Zeevi, 2020: 3).

The most important desalination plant, Red Sea-Dead Sea Initiative, still remains as a draft plan (Sánchez, 2019: 3). Desalination plant around Lake Tiberias and two dams on the Yarmouk and Jordan Rivers have not commenced yet (Haddadin, 2011: 184).

Additional 50 mcm/year of water given to Jordan due to its demand for a greater share of the Jordan River has not been delivered yet, while Israel has reduced Jordan's water share in the Jordan River from 100 mcm/year to 30 mcm/year (Haddadin, 2011: 184).

The 1994 treaty frustrated Jordanian elites as it did not solve the country's water problems, while it enabled Israel to maintain its hegemony over the water resources. Consequentially, every segment of Jordanian society including the locals, intellectuals and statesmen do not want cooperation with Israel anymore (Sánchez, 2019: 2-5).

In fact, the predominant Jordanian position prior to this treaty was already against cooperation of any sort with Israel since its establishment in 1948. Yet, the Jordanian public was not informed about this treaty due to their strong antipathy against Israel (Sánchez, 2019: 2-3).

The political environment in the 2000s made cooperation particularly difficult and led to a break down in the relations of two countries: the assassination of Yitzhak Rabin and Likud Party's ascendance to power in Israel; the Second Intifada (2000-2005); the Israel-Lebanon War in 2006; and the Gaza Wars in 2008, 2012 and 2014 deteriorated the fragile positive atmosphere (Haddadin, 2011: 184).

Increasing violence and conflict between Israel and Palestine turned Jordanians against any cooperative initiatives with Israel; real peace between Israel and Jordan is assumed to come true only after a political solution of the Israeli-Palestinian conflict, because Jordanians fear that Palestinians might not create their own state and, thus, Jordan is regarded as an alternative to a future Palestinian state (Haddadin, 2011: 184; Sánchez, 2019: 4; Zeevi, 2020: 3).

In this regard, the predominant Jordanian position involves empathy for their Arab fellows and, thus, prioritizes the resolution of Israel-Palestinian conflict including the water-related matters, if Israel wants real peace with them. The Jordanian elites, on the other hand, expect and demand the finalization of joint projects and full implementation of 1994 Peace Treaty together with the resolution of Israel-Palestinian conflict.

All in all, it is crucial to solve Israel-Palestinian conflict in general and water conflict in particular in order to bring real peace to Jordan-Israel relations, and the parties should move beyond technical cooperation and politicize water issues so as to find common ground for water allocation between them on the basis of international law.

3.6. ISRAEL'S DOMINANT WATER POSITION

In its early years (1948-1960), the predominant water position of Israel was about controlling water resources in the region and establishing property rights in the controlled territories (Alatout, 2006: 611-612). Having occupied most of the water resources of the region with the 1967 Six Days War, Israel claimed that all of those resources in these territories had been transferred to its control.

Water is almost on a par with Israel's national security, identity and territorial integrity, and hence the claim that this resource should remain under the Israeli control

(Ide, 2017: 551; Ide, 2018: 239-240). Water availability is seen as a prerequisite for Israel's national security and survival; the official claim is that every drop of water in its territories belongs to Israel and relinquishing the control of water means compromising Israel's existence. So, it is no wonder that water availability is highly securitized by Israel and its non-existence is regarded as an existential threat (Messerschmid, 2012: 438-439; Waintraub, 2009: 25; Weinthal and Marei, 2002: 462-463).

Israel fears that transferring its water rights to Palestine would undermine its strategic interests (Aggestam and Sundell-Eklund, 2014: 15). Threats from the neighboring Arab states and Iran consolidated its water securitization. Israel underlines that only with tight and close control of water resources in the region, pollution, overuse and scarcity can be prevented and for this reason it should maintain its firm control over those resources (Fröhlich, 2012: 130-131).

Securing access to water is linked to agricultural development and rural settlement stemming from Zionist ideology (Waintraub, 2009: 24). Water and agriculture play a crucial role in Israeli national identity politics and large parts of Israeli water resources are used in agriculture despite its nominal contribution to the national GDP and high food imports (i.e., 90%) (Kramer, 2008: 14; Aggestam, 2015: 331; Ide and Fröhlich, 2015: 664).

Israel's strategy to make the desert bloom remains its central ideology and position; Zionism regards transforming lands into productive areas as a criterion for success; and expansion of arable lands into desert was central to the nationalist ideology and state-building. Israel aims to grab lands and water to maintain its Zionist agricultural strategy and, in this respect, agriculture has privileged access to water and is heavily subsidized; and only with the sufficient water, Israeli dream of returning back to Jewish homeland could be achieved (Châtel, 2007: 56-57; Messerschmid, 2012: 438-439; Waintraub, 2009: 24).

Israel claims that water is absolutely scarce although it utilizes over 80% of water resources of the region, while simultaneously desalinating and recycling the water (Aggestam, 2015: 331; Jägerskog, 2009: 636). Israel shows climate change as a scapegoat for water scarcity rather than its own mismanagement (Messerschmid, 2012:

434-435) and it maintains that available water in historic Palestine does not even satisfy half of Israel's water needs (Aliewi and Assaf, 2007: 27).

Israel gives climate change and increasing aridity as excuses for not releasing sufficient water for the Palestinians. Threats posed by the climate change help further justify the Israeli control of water resources in the region (Mason, 2013: 303-304).

Israel depicts itself as being vulnerable to water scarcity due to the considerable parts of the Mountain Aquifer being outside its territory. It asserts that bad water management of Palestine, because of the lack of efficient wastewater recycling system, is mainly responsible for the water pollution Israel faces (Ide, 2017: 552; Ide, 2018: 239-240).

Israel prefers to address water problems in deterritorialized, depoliticized, desecuritized and technical ways, and wants to cooperate in order to increase water quality and quantity. Its main concern is to use water more efficiently, largely overlooking its occupation, confiscation of lands, creation of separation wall, water rights, hydro-politics and historical utilizations (Alatout, 2006: 605; Weinthal and Marei, 2002: 462-463; Aggestam, 2015: 331-332; Aggestam and Sundell-Eklund, 2014: 15).

Since Israel has excessive control over water resources in the region thanks to its military and economic power, it naturalizes and depoliticizes water scarcity in order to maintain the status quo. While Israeli position is highly securitized and politicized, it successfully utilizes technical vocabulary to hide its real position (Messerschmid, 2012: 438).

The official policy of Israel involves promoting ecological and human security concerns by arguing that water scarcity in the region is absolute and joint water management is required to protect the region's water and population (Fröhlich, 2012: 129-131; Fröhlich, 2020: 20-21).

In its depoliticized water cooperation strategy, Israel's advanced technology to desalinate and recycle wastewater play a crucial role in maintaining its technical approach (Fröhlich, 2020: 21).

Israel rejects the Palestinian claims over access to the Mountain Aquifer and defends that Israel was the first to supply its water to Tel Aviv and Jerusalem. Since the Mountain Aquifer already appeared as springs in Israeli territories before the 1967

occupation, Israel claims to have also historic or prior use. It asserts that it developed water infrastructure over the Mountain Aquifer and utilized it for more than 80 years. Thus, depriving it of this portion of water would cause significant harm to Israel and be against international law, it maintains. Israel could only supply Palestinians with desalinated water rather than relinquish Israeli water (Aggestam, 2015: 331; Shuval, 2007: 8).

Israel points out that the Oslo II Accords determined water management between Israel and Palestine, and thus, there is no need to negotiate water rights and needs of a future Palestinian state (Aliewi and Assaf, 2007: 27).

It also maintains that the 1994 Peace Treaty with Jordan successfully resolved the water conflict between Israel and Jordan, turning water into a largely depoliticized issue (Fröhlich, 2012: 130).

Neither the former Israeli Prime Minister Sharon nor the former Israeli water negotiator Ben-Meir was willing to relinquish Israel's water control and they were only willing to talk about water needs of the parties (Haddad, 2007: 50). Moreover, Israeli public was not only opposed to make any water concessions to Palestine but also against any negotiation with the Palestinians (Waintraub, 2009: 25).

Israel claims that it has nothing to do with the water crisis in the Gaza Strip and shifts the responsibility to Palestine to solve it through desalination; Israel would not supply the Gaza Strip with the Israeli water, not even from the West Bank's water resources; and it constructed the separation wall also to prevent Palestinian access to the Jordan River (Aliewi and Assaf, 2007: 27).

In sum, it is crystal clear that Israel has a clear intention to maintain its hydro-hegemony over the water resources of the region. For successful peacebuilding between Israel, Palestine and Jordan, there is an urgent need to counter Israeli hegemony in order to persuade it to find common ground for water crisis on the basis of international law.

Otherwise, addressing water issues from a purely technical perspective, as Israel defends, will perpetuate water scarcity and water infrastructure problem for Palestine and Jordan, making sustainable peace among these actors impossible. For such a peace, among other issues, the water rights of Palestine need to be recognized and Jordan's additional water supply and joint water projects need to be ensured.

3.7. POSITIONS AND POLICIES OF GOOD WATER NEIGHBORS AND ITS STAFF

Good Water Neighbors project aims to increase cross-border water cooperation among Israeli, Jordanian and Palestinian communities by focusing on common water concerns and through that cooperation to enhance peace and cooperation among them (Kramer, 2008: 23-24). It believes that mutual dependence on the same water resources can urge adverse communities to find joint solutions to their water-related problems (Harari and Roseman, 2008: 18-19).

GWN project emphasizes the interdependent nature of water resources and their problems; and it promotes transnational rather than national water management in the region (Ide, 2018: 249). In this regard, it intends to establish transnational institutions to which all riparian states have equal access and vote; joint management at the basin scale is the only efficient option for GWN to solve water problems in the region (Ide, 2017: 551-553).

Every GWN project has a motto: water has no boundaries. GWN activists argue that borders have no importance and territorial fragmentation can hinder the effective management of water resources (Ide, 2017: 551-553).

GWN policies frame water as a crucial means to sustain the lives of humans and ecosystems (Fröhlich, 2020: 22-23). It emphasizes the benefits of water for all in the region so as to increase the inclusiveness of its activities: water is framed as being crucial for drinking, sanitation, agriculture, transportation, energy production etc. (Fröhlich, 2020: 21-22; Ide and Fröhlich, 2015: 665).

GWN project's rationality believes that water problems stem mostly from aridity of the region, climate change's negative impacts and growing population, while the lack of water cooperation is said to multiply regional water problems (Ide and Fröhlich, 2015: 666). While it accepts that Israeli water policies negatively affect water quantity and quality in the region to some extent (Ide, 2018: 248), for GWN main water problems originate from geographic and demographic reasons mentioned above. The position of GWN regards water scarcity as a naturally induced problem, and depicts nature and human as vulnerable to this crisis; therefore, it securitizes the survival of humanity and nature (Ide and Fröhlich, 2015: 665).

GWN lays stress on water quality and quantity problems of the partnering countries: it confirms that Israel is threatened by water pollution but it does not face water quantity risk, while Palestinians and Jordanians have low-level water availability and they are affected more profoundly from water quality problems (Ide and Fröhlich, 2015: 666).

GWN project attributes a negative meaning to top-down political approaches which, as it argues, do not consider local realities and interests and which are mainly motivated by national security and ideological concerns (Fröhlich, 2020: 24-25). Therefore, GWN project prefers depoliticized water cooperation in which political issues such as water and property rights, and power asymmetries are ignored in order to prevent resistance and opposition from partnering countries and their local communities (Carnevali, 2021: 46-47).

GWN treats politics in the region as the main obstacle for the joint management of water resources, because top-level decision makers are only concerned with national interests and regard water cooperation as a zero-sum game (Ide, 2017: 552). Rather than including politics into its policies, GWN puts more emphasis on bottom-up initiatives and local scale of water cooperation to increase trust and understanding among former adversaries, while also assuming that water-related cooperation and peacebuilding can spill over other sectors such as politics, economy or energy (Kramer, 2008: 23; Harari and Roseman, 2008: 18-19).

GWN's technical or depoliticized water-related activities such as building ecological gardens and eco-parks, teaching water saving techniques, raising environmental awareness, improving water infrastructure and the like neglect political dimensions of water issues in order to create trust and understanding between respective communities (Harari and Roseman, 2008: 18-20).

In this respect, GWN project's position shows similarities with the Israeli water policy which favors to cooperate mainly to develop additional water resources, such as through desalination and wastewater recycling, to use water more efficiently, and to conserve water resources rather than to reconsider the Israeli occupation and confiscation of lands, the creation of separation wall, water rights, hydro-politics and historical utilizations (Alatout, 2006: 614; Zeitoun and Mirumachi, 2008: 305-308). Although GWN strategy does not consider and promote the Palestinians' water rights,

Palestinians consistently demand controlling their own water resources in the West Bank and Gaza Strip for their future state (Alatout, 2006: 616; Waintraub, 2009: 31-32).

In general, GWN activists and staff depict each other in positive terms, show respect and empathy towards the other side, and constantly emphasize the need to cooperate in order to solve regional water problems (Ide, 2018: 248-249). Palestinian GWN activists regard Israeli ordinary citizens as good people and neighbors who have rights to live in security, peace, freedom and respect (Ide and Fröhlich, 2015: 667; Ide, 2017: 553). Israeli GWN staff perceive Palestinians as their neighbors and criticize Israel's checkpoints, the separation wall and lack of permission for Palestinians to work in Israel (Ide and Fröhlich, 2015: 667), accepting all people in the region as sons of the earth and seeing borders insignificant for cooperation (Ide, 2017: 553).

On the water issue, while Palestinian staff gives more importance to water quantity, the Israelis put more emphasis on water quality problems (Ide and Fröhlich, 2015: 666). Jordanian GWN staff focused on economic development, and free movement of workers, people and goods so as to increase trade activities and water-related cooperation; Israeli GWN activists emphasized improved water management and developing new water resources through desalination and wastewater recycling techniques; and Palestinian GWN staff argued for their water rights and the end of the Israeli occupation (Kramer, 2008: 26).

Although respective parties held different interests, they wanted to improve water resources' conditions and worked towards cooperative initiatives through the GWN project. Positive depictions of each other enabled them to conduct several GWN projects in technical or depoliticized ways.

Nevertheless, many other activists and staff from both sides still consider each other in negative terms due to existing political tensions, and this, in fact, rendered real and sustainable cooperative arrangements difficult to observe. Palestinian activists regard the right-wing Israeli officials and settlers as fanatic, ruthless and evil (Ide, 2018: 249; Ide and Fröhlich, 2015: 667).

Palestinian GWN staff claim that sources of water problems in the West Bank and Gaza Strip stem partly from natural water scarcity but substantially from Israeli policies in these territories; Palestine is not attributed any major responsibility in these

problems (Fröhlich, 2020: 23). They regard Israel's occupation since 1967 and its nearly total control of water resources in the region as the most important cause of water scarcity in the West Bank and Gaza Strip (Ide, 2018: 248). This argument reflects the predominant Palestinian water position which accuses Israel of preventing Palestine from developing its water infrastructure.

On the other hand, Israeli GWN staff assert that Israel's water situation is better not only due to its utilization of the West Bank's water resources but also because of its technological, administrative and institutional capacities and superiority. Thus, while both Israeli and Palestinian GWN staff acknowledge that Israel's policies constitute the most important factor for water problems in the region, their disagreement over the role of technology and administration in water problems hinder GWN activists' cooperation (Fröhlich, 2020: 25).

In contrast to Palestinian GWN activists, Israeli side hold Palestinians also as responsible for water problems in the West Bank; Palestinians are portrayed by Israeli GWN activists as incompetent to build and operate water infrastructure; and Palestine is depicted as a place where corruption and clientelism prevail, and where work ethos is lacking (Ide and Fröhlich, 2015: 553). In other words, Israeli GWN staff regard Palestinians as incapable and backwards in terms of water management, which actually reflects the predominant Israeli position that obstructs the building of trust and understanding between activists (Ide, 2017: 248-249).

Moreover, Israeli GWN activists consider themselves as superior to their Palestinian colleagues and believe that Palestine's low economic capacity poses an impediment to developing its water infrastructure in which Israel performs excellent (Ide and Fröhlich, 2015: 553). They also underline that Palestinians' bad water management constitutes the major reason for the water pollution Israel experiences and makes it vulnerable (Ide, 2018: 248-249).

In sum, although all activists of GWN superficially define each other in positive and pro-cooperation terms to get involved in depoliticized water management, they overwhelmingly reflect their countries' dominant water positions, which are mutually exclusive and confrontational, and actually politicize and securitize water issues in order to achieve control of water resources in line with the parties' national interests and state-building.

These disagreements, and diverging views and interests over water-related issues do prevent GWN activists from making shared decisions on how to employ environmental peacebuilding through GWN project.

3.8. CRITICAL EVALUATION OF GOOD WATER NEIGHBORS PROJECT

In asymmetrical conflicts like the Israeli-Palestinian one, depoliticized or technocratic water cooperation ignores power asymmetries and unequal water distribution. Such an approach precludes wider inclusion of societies into water development through addressing their real concerns, and, more importantly, prevents desecuritization/depoliticization's ambition to return to normal politics, because vulnerable parties still perceive water crisis as an existential security issue and continue to politicize water issues in highly politicized regions like the MENA (Aggestam, 2015: 332-335).

The depoliticized water cooperation mentality of Israel sorts together with the GWN water policies, which avoid political aspects so as to prevent resistance from the Israeli side, and to build trust and understanding with the help of technical water cooperation.

However, while the GWN project argues for basin-wide technical water cooperation and claims that water has no boundaries, it raises a question mark in minds that why then GWN project does not include the Jordan River's two other riparian states, Lebanon and Syria.

The water cooperation mentality of Israel and GWN does not address water rights and historical utilizations. Rather the emphasis is on promoting cooperation to find new water supplies such as through desalination or wastewater recycling as well as to protect and improve existing water resources (Aggestam, 2015: 335; Aggestam and Sundell-Eklund, 2014: 15; Alatout, 2006: 605).

However, water scarcity and water development are inherently political processes in which several actors compete and cooperate for water. Thus, politics should be included in water-related issues for more comprehensive cooperation (Aggestam, 2015: 331-335; Molinga, 2008: 1-5; Warner and Wegerich, 2010: 3-5).

GWN project is criticized for its marginalization of Palestinians' water rights, and its depoliticization of water scarcity and inequality (Alatout, 2006: 614; Reynolds, 2017: 716). Consequently, this depoliticized water cooperation was faced with a strong Palestinian opposition to cooperate with Israel and triggered an anti-normalization trend (Aggestam, 2015: 337).

Many Palestinians asserted that they did not want to cooperate with Israelis in GWN project while Israeli occupation persisted. For instance, Wadi Fukin residents of Palestinian community rejected to work with the settler Beitar Illit community (Harari and Roseman, 2008: 33). Although the members of Palestine's Wadi Fukin and Israel's Tzur Hadassah communities halted the construction of the separation wall on their territories, Wadi Fukin's GWN participants stated that they would no longer participate in GWN projects, because the cancellation of the separation wall resulted in Tzur Hadassah's expansion onto Wadi Fukin's territories. The expansion of the Israeli community led to the Palestinian community's perception of its counterpart as settlers, and people in Wadi Fukin community accused Palestinian GWN activists of normalizing relations with Israeli settlers (Reynolds, 2017: 713). Thus, rather than building trust and understanding, this GWN initiative further deteriorated relations of the communities, and in fact enhanced mistrust, hatred and prejudice of the Palestinian side.

In another instance, GWN project organized cooperation between the settler Kfar Etzion field school and local Palestinians; even though the Palestinian side acquiesced to cooperate to benefit from Israelis' power to suspend the separation barrier in the forest place, they continued to regard this field school as settler and thus illegal. The Palestinians believed that the Israelis have negative intentions; an intention confirmed by the Israeli petition for barrier in the forested area ending up in the creation of a new route that endangered further agricultural lands of Palestinians (Reynolds, 2017: 711).

It is really unjust and inconvenient to promote cooperation in this way while Palestinians consistently claim that they are against any cooperative project with the Israeli settlers. This can, of course, be interpreted as a normalization attempt of GWN initiative which has, however, little possibility to enhance trust and cooperation in the face of the Palestinian objection.

Therefore, cooperation in these two examples that reflected power asymmetries, unequal water and territory distribution, and deep mistrust and fear of the Palestinians against Israel were doomed to fail from the beginning (Reynolds, 2017: 712-717).

As mentioned previously, GWN position regards water scarcity as naturally induced, and depicts nature and humans as being vulnerable to this crisis, and therefore, it securitizes their survival (Ide and Fröhlich, 2015: 666; Fröhlich, 2020: 23). In other words, EcoPeace views climate change and water scarcity as naturally induced without considering or highlighting the socio-political vulnerabilities and factors that derive from the Israeli occupation (Mason, 2013: 302-303).

Palestinians, on the other hand, underline that water scarcity mostly stems from the Israeli occupation of its water resources in the West Bank and Israel's prevention of Palestinians from drilling new wells in the Area C of the West Bank (Alatout, 2006: 616; Fröhlich, 2012: 135-137; Waintraub, 2009: 32;).

In this regard, GWN strategy largely ignores human grievances of the Palestinian side, which are due to the deprivation of the Palestinians from the control of their water resources and from adequate water infrastructure, in order not to create resistance from the Israeli side and thus to facilitate cooperation among the parties.

This position of GWN conforms with the Israeli technical approach which mainly highlights climate change's negative impacts, increasing population and region's aridity as the causes of water problems while masking the structural inequalities which, in fact, generate water scarcity for the Palestinians in the first place.

GWN water position points out that politicians do not know the local realities and needs, but they only focus on national interests and security (Ide and Fröhlich, 2015: 668; Fröhlich, 2020: 24-25). However, GWN fails to realize that Palestinian water policies have a dual nature. To the international audience it advocates technical water cooperation for the sake of maintaining international donor funds in line with the Oslo II water regime. On the other hand, in the domestic sphere, Palestinian policymakers argue for water rights in order to receive popular support, as the Palestinian population indisputably defends for controlling their water resources in the West Bank (Ide and Fröhlich, 2015: 664; Messerschmid, 2012: 439-440; Waintraub, 2009: 31-32). That is to say, Palestinian locals demand their water rights. Only with

controlling their water resources they believe that they can improve their socio-economic conditions (Messerschmid, 2012: 439-440).

Since Palestinians regard water as crucial to establish their own state, accepting technical cooperation means surrendering Palestine's central goal of state-building (Fröhlich, 2012: 137). They believe that sustainable development can only be achieved if they have their own territories and water resources (Alatout, 2006: 616-617).

Nevertheless, this Palestinian position is marginalized and political aspects of water cooperation are left for the final status talks with the belief that technical water cooperation would spill over other spheres such as politics, economy and energy.

However, technical water cooperation in the context of Israeli hydro-hegemony reproduces the status quo and renders conflict resolution difficult, if not impossible. Hydro-hegemon has no empathy for the other and it regards less powerful riparian states as incapable, backwards, subaltern and violent; and the less powerful riparian states hold grudges, mistrust and opposition to the hydro-hegemon, which, in turn, make trust building in this unequal and asymmetrical context impossible (Wessels, 2016: 1326).

This hegemonic attitude exists even among the Israeli GWN activists who regard Palestinians as underdeveloped, incapable and backwards; the latter are seen as lacking work ethos and the know-how to build and operate water infrastructure (Ide, 2017: 553; Ide and Fröhlich, 2015: 667).

In the Israeli-Palestinian context, Israel enjoys hydro-hegemony over the region's water resources and disregards Palestinian water rights. GWN project does not challenge this hegemony, rather it chooses to enhance trust and understanding between parties through technical water cooperation, which reflects Israeli strategy to maintain its hegemonic status quo.

However, political and military domination of the hydro-hegemon at river basins undermines the building of trust and empathy because of the existence of structural violence which inflicts trauma on weaker parties. What is needed, therefore, is to end all kinds of violence and to recognize inflicted traumas in order to build trust and understanding among adversaries (Wessels, 2016: 1325-1326). Contrary to these requirements, GWN project does not put pressure on Israel to recognize Palestinians' traumas, which stem from the Israeli occupation and Palestinians' lack of water rights.

Instead, it works to build trust in apolitical/technical ways while unrecognized traumas in fact hinder this trust-building process, which is the prerequisite for every peacebuilding initiative.

The success of water-related education among Palestinians and Israelis in the GWN project remains limited to already pro-peace participants (De Vries and Maoz, 2013: 69-71; Ide and Tubi, 2020: 6-8). In fact, education in the context of structural injustices reproduce the status quo rather than result in positive impacts for peacebuilding (Davies, 2010: 492).

GWN's education programs did not attract Palestinians under the Israeli occupation. Education activities remain as secondary to water rights for the Palestinians who argue that these activities direct attention away from unequal water distribution and normalize the unjust situation (Ide and Tubi, 2020: 9). Moreover, many of the GWN projects were one-time events including education activities, tours, conferences and meetings for adult and youth participants (Kramer, 2008: 27; Reynolds, 2017: 714). Short time education for peace fails to change negative perceptions of people in the absence of constant communication and contact; and consistent violence can hinder long-term trust building (Kupermintz and Salomon, 2005: 295).

Track Two diplomacy among Palestinians and Israelis did not really represent the dominant positions of their societies; these initiatives included the pro-peace or left-wing people who are already predisposed to cooperation (De Vries and Maoz, 2013: 70).

Hence, GWN projects suffered from the lack of representativeness among the communities of respective parties, whereas the number of involved in GWN projects consisted of a core group of participants rather than thousands of people. It was estimated that only 20 people participated in the GWN activity from Tzur Hadassah community, while most of the activities at Kfar Etzion field school included one specific family from the Palestinian village of Husan; and the limited number of GWN participants, already prone to cooperation, were unable to challenge the dominant positions of their communities (Reynolds, 2017: 713).

The Israeli public in general is content with the status quo and opposed to make concessions to Palestinian water demands, while Palestinians strictly oppose any

technical cooperative initiative which does not include their water rights (Waintraub, 2009: 31-33; Fröhlich, 2012: 129-144; Alatout, 2006: 611-617).

Mark Zeitoun and Naho Mirumachi argue that cooperation among the mayors of Jordan, Israel and Palestine in the context of GWN is less important than unequal water distribution and power asymmetry, which mainly stem from the Israeli occupation; and they emphasize that not all cooperation is pretty since it can mask structural inequalities (Zeitoun and Mirumachi, 2008: 305-307).

Israel has been also successful to get its hegemonic water cooperation agenda accepted by the international donors and NGOs, and succeeded in receiving the financial support of donors to continue its technical water management (Aggestam and Sundell-Eklund, 2014: 18; Messerschmid, 2007: 14-15; Messerschmid, 2012: 441-442). External experts, donors and their governments, NGOs and the western public and media have been generally content with and thus supported the Oslo II water regime between Israel and Palestine, ignoring Israel's nearly total control of shared water resources and Israel's veto right to prevent Palestinian drilling activities in the West Bank (Messerchmid, 2007: 14-15; Messerschmid, 2012: 448-449; Wessels, 2016: 1327).

International donors refrain from addressing the politically induced water crisis of Palestine and rather prefer technical solutions which help consolidate Israeli hydro-hegemony (Aggestam and Sundell-Eklund, 2014: 18; Messerschmid, 2012: 441-442; Selby, 2013: 20-21; Zeitoun and Warner, 2006: 454; Zeitoun, 2008: 80-83).

Technical water policy hides and prolongs Israel's unequal water access in the region; donors ignore political struggle of Palestinians to achieve equal water share and they try to persuade Palestine to embrace technical solutions such as desalination, wastewater recycling and demand management. Therefore, donors' position makes technical cooperation consonant with the Israeli occupation (Messerchmid, 2012: 441-442; Messerschmid, 2007: 14-15; Zeitoun and Warner, 2006: 454; Zeitoun, 2008: 80-83). In other words, a sustainable water future for Palestinians is forsaken for the sake of maintaining Israel's hegemonic technical water management since Israel, donors and NGOs all normalize and reinforce this hegemonic status quo (Messerchmid, 2012: 441-442; Messerschmid, 2007: 14-15) by ignoring the water rights of Palestine (Aggestam and Sundell-Eklund, 2014: 18).

Since the GWN projects are largely funded by the Swedish International Development Agency (SIDA) and the United States Agency for International Development (USAID), EcoPeace acts in conformity with international donors' technical water cooperation mentality, which derives from universal liberal peacebuilding agenda, and ignores politics and power asymmetries at river basins. Both USAID and SIDA want to maintain the Oslo II water regime and technical water cooperation at the expense of Palestine's demands for water rights in the West Bank and Gaza Strip (Messerschmid, 2007: 14; Zeitoun, 2008: 80-83).

Depicting water in relation to human security and as a transboundary issue, peacebuilding initiatives deterritorialize water cooperation and thus marginalize Palestine's perception of water in territorial terms (Ide, 2020: 3). However, ignoring the root causes of the conflict can be regarded as a step away from resolving it (Zeitoun and Mirumachi, 2008: 307).

Peacebuilding projects after the 1995 Oslo Accords have not addressed Israel's prevention of Palestine from developing its own water infrastructure in the West Bank, while people-to-people initiatives employ technical water cooperation preferred by Israel, which purports to increase water supply and to improve water situation in apolitical and scientific ways (Jägerskog, 2018: 213-216).

Several initiatives between Palestine and Israel direct attention away from the Israeli occupation and unequal water distribution in the West Bank (Ide, 2020: 3; Mason et al., 2014: 49-50). EcoPeace's environmental peacebuilding to improve the environmental situation and to enhance trust and peace between conflicting countries have not brought significant success so far, while GWN initiatives helped just reproduce the unjust and unequal water and territorial arrangements in the West Bank (Schilling et al., 2017: 124-125). This technical/depoliticized water cooperation mentality will continue to reproduce and reinforce unjust water status quo in favor of Israel unless a political counter-hegemonic discourse emerges with the help of donors, NGOs and third parties especially the US and the EU that have the most leverage over Israel.

The Oslo II water regime renders the construction of new Palestinian water infrastructure in Area C of the West Bank nearly impossible since any Palestinian water infrastructure project in that area requires firstly the approval of Joint Water

Committee and then of Israel's Higher Planning Council. Israel does not recognize around 90% of the Palestinian villages, and also consistently rejects or delays Palestinians' applications for water projects in Area C (Selby, 2013: 9).

The vetoes of Israel and JWC in Area C constitute a serious problem for Palestine: most important Palestinian water infrastructure including wastewater treatment facilities should be located within these territories due to land use and environmental reasons; and majority of the most productive well-drilling zones are situated in this area (Selby, 2013: 9).

Thanks to the Oslo II Accords, Israel guarantees its unilateral and unchecked water management in around 79% of the West Bank, while it agrees to jointly manage roughly 21% of the West Bank's remaining parts (Zeitoun, 2007: 112). Countries jointly manage only the Mountain Aquifer's parts which lie within the West Bank whereas Israel unilaterally utilises water from the other parts of the Mountain Aquifer which is situated inside the Green Line where JWC has no authority (Brooks et. al., 2020: 26-27).

Israel excluded the Jordan River, Israeli parts of the Mountain Aquifer and Coastal Aquifer from the Oslo water regime in order to maintain the status quo over these resources. Israel's real intention in that regime is not to protect environment or increase cooperation, but to obstruct Palestinian water infrastructure development and water utilization from Area C (Selby, 2013: 15-18).

The Oslo II water regime facilitated Israel's expansionist policies in the West Bank with the approval of Palestinian Authority (PA): PA allowed Israel to establish new water infrastructure for Israeli settlements in the West Bank in return for Israel's permission for Palestine to drill new wells even though this contradicts Palestine's desire to found its own state in the Gaza Strip and West Bank (Selby, 2013: 17-22). Also, while JWC does not control water activities of Israel, it strictly checks, limits and closely monitors Palestinian water activities in the West Bank (Aliewi and Assaf, 2007: 196-198; Waintraub, 2009: 32). Therefore, the Oslo II water regime and Joint Water Committee allowed Israel to contain and dominate Palestine, and to maintain its hydro-hegemony over water resources it had occupied since 1967 (Zeitoun and Warner, 2006: 453).

Until today, Israel has constantly rejected new well-drilling activities of Palestinians in the Western Basin of the West Bank aquifers thanks to its veto right given by the Oslo II water regime (Aliewi and Assaf, 2007: 31; Messerschmid, 2007: 12). The wells drilled after the Oslo II water regime only provides 13 mcm/y of water rather than the originally proposed 20.5 mcm/y, and around 80 mcm/y of future Palestinian water needs determined by the Oslo II has no possibility to come true in near future (Selby, 2013: 19).

The Oslo II water regime allows Israel to control 87% of the Mountain and Coastal Aquifers' water resources (Waintraub, 2009: 32), and while Israel utilizes around 90% of shared water resources along the Jordan River, this ratio corresponds to 10% for Palestinians (Zeitoun and Warner, 2006: 13-14; Zeitoun and Mirumachi, 2008: 306).

In total, Israel and Palestine's water distribution patterns are highly unequal which indicate that Israel controls nearly 85% of all the shared water resources (Kramer, 2008: 13). While Palestine has 9 mcm/y of water access from the Jordan River, Wadi al Far'a and Wadi Gaza, this number equals to 691 mcm/y of water for Israel over the same resources; while Israel utilizes 912 mcm/y of water from Eastern, North Eastern, Western and Coastal Aquifers in the West Bank, this number corresponds to 267 mcm/y of water for Palestine over the same resources; and totally this unequal allocation and consumption favors Israel with 1603 mcm/y of water while Palestine is restricted to 276 mcm/y of water (Zeitoun, 2008: 57-58).

Moreover, if additional water supplies from desalination and wastewater recycling are added, in total, Israel's share from the shared water resources goes up to 2100 mcm/y of water, while this number rises nominally to 300 mcm/y of water for Palestinians, indicating that Israel has seven times more access than Palestine to the shared water resources (Zeitoun, 2008: 14).

On the other hand, Israel and Palestine relations are highly asymmetrical, but the international community, donors and NGOs do not do much to increase economic, technological and ideational power capacities of Palestine so that it could achieve best possible water cooperation with Israel.

Israel's extreme superiority in military resources enabled it to coerce Palestinians to obey the water status quo. The Israeli military caused heavy damage to

Palestinian water infrastructure such as in the city of Jenin, while the separation wall prevented Palestinian access to the Jordan River and Mountain Aquifer. This highly asymmetrical hard power of Israel allows it to act also as a hydro-hegemon dictating its unilateral water management over Palestine and closing the doors for negotiation and cooperation (Zeitoun, 2008: 98).

Israel has also superior economic capacity: while Israeli GDP per capita corresponds to \$44,000 in 2020, this number equals to \$3,239 in 2020 for Palestinians (World Bank, n.d.). This superiority in economic performance resulted in Israel's having well-developed technology which enabled it produce over 600 mcm/y of desalinated water thanks to five desalination plants, and to produce around 400 mcm/y of water from wastewater, while Palestine lacks these abilities due to its low-level economic capacity (Talozi et al., 2019: 924).

Naturally, thanks to its superiority in economy, military and human resources and thanks to its success to receive international support both in economic and ideational aspects, Israel is far more powerful and thus successful to set the water cooperation agenda, to shape water-related perceptions and to get its hegemonic water position accepted by the international community (Zeitoun, 2008: 122). This high asymmetry of power, on the other hand, prevents Palestine to secure more beneficial water cooperation outcomes for itself (Jägerskog, 2018: 215).

Organizing a counter-hegemony might enable Palestine and Jordan to challenge the hegemonic and unfair cooperative arrangements dictated by the Oslo II water regime. Through such a counter-hegemony the weaker sides' positions might be promoted, increasing their bargaining and economic power vis-à-vis the hegemonic state, such as through prioritizing ethics and international law, by attracting attention via media and internet, and searching for international funds and support in order to achieve equal water distribution and positive-sum cooperation (Messerschmid, 2007: 19-21; Zeitoun and Warner, 2006: 454-455).

By means of a successful counter-hegemony a new water agenda can be shaped and water cooperation agenda can be controlled so that political aspects of water cooperation receive the much needed and long overdue attention in water negotiations (Messerschmid, 2007: 19-21).

In this respect, weaker sides' perspectives, interests and policies should be explained to the public and policymakers of parties as well as to international donors and NGOs; the GWN project in this strategy can play an active role in order to articulate Palestinian interests in domestic and international spheres on the basis of international law. In addition to this, third parties in the Israeli-Palestinian peace process should strive for including Palestinian water rights concerns into negotiations (Waintraub, 2009: 23).

3.9. CONDITIONS FOR ENVIRONMENTAL PEACEBUILDING: EVALUATION IN THE CONTEXT OF ISRAELI-PALESTINIAN WATER RELATIONS AND WITH REGARD TO THE GOOD WATER NEIGHBORS PROJECT

Having critically evaluated the GWN's depoliticized environmental peacebuilding, it is necessary now to assess briefly whether conditions for environmental peacebuilding are observed in the Palestinian-Israeli context and in the GWN initiatives. Although this does not indicate that only mentioned conditions matter for effective peacebuilding, they deserve to be addressed due to their significance in this specific context.

For a more comprehensive analysis, the literature of environmental peacebuilding requires well-developed evaluation methods of peacebuilding activities in terms of their goals, actors' interests, conditions and outcomes, and their adverse effects.

Several researchers underlined that absence of recent violence, support of high-level political elites, international funding, impartial mediation and willingness of local actors are as some of the most important conditions for a successful environmental peacebuilding (Kramer, 2008: 21-22; Swain, 2016: 1314-1317; Weinthal et al., 2011: 149-151; Wolf, 2004: 23-24).

Other scholars added the existence of mutual interests and power symmetries as other crucial indicators for the success of environmental peacebuilding (Dresse et al., 2019: 105-107).

Relations between Israel and Palestine are chronically violent and conflictual. From 2000 onwards, Israel and Palestine interactions have consisted of low-intensity war and military occupation; parties have displayed strong hostility through verbal expressions; diplomatic, political, economic and militarily hostile actions are common; small-scale military actions such as restrictions and detentions take place usually; while extensive war acts claimed the lives of people and soldiers from both sides, dislocated Palestinians and inflicted serious strategic and infrastructural costs, including Israel's destruction of Palestinian water infrastructure in the city of Jenin (Zeitoun, 2007: 109-110; Zeitoun, 2008: 91-98).

This violence still continues, putting the security of both parties under constant threat. Thus, as a matter of fact, a favorable environment does not exist for the publics and policymakers to cooperate.

Violent acts and clashes in the Gaza Strip, low-intensity terrorist attacks against Israel, Israel's occupation of the West Bank and its expansion of settlements in the occupied territories obstruct the success of environmental peacebuilding activities (Ide and Tubi, 2020: 9).

Second Intifada (2000-2005), and the Gaza Wars in 2008, 2012 and 2014 indicate the high-risk of violence and war among adversaries that are expected to affect negatively and naturally hinder the peacebuilding initiatives in this context (Djernaes et al., 2015: 74-75).

Therefore, even though several cooperative initiatives took place in the Middle East, including the 1994 Israel-Jordan Peace Treaty, the 1993-1995 Oslo Accords between Israel and Palestine, and the 1987 Turkish-Syrian Agreement on the Euphrates, Middle East water politics is largely conflictual and regarded as a zero-sum game, which precludes the possibility of win-win outcomes (Sümer, 2014: 84).

Support by high-level political elites is a rare phenomenon in this region, while territorial and water resource control concerns overweighed needs-based water cooperation after the failed peace process of the early 1990s. Arab leaders have no reason or willingness to negotiate peace and to cooperate with Israel, although they struggle to control regional water resources. They regard cooperation with Israel as forbidden and as a soft struggle against Zionism (Rossi, 2020: 31).

Palestinian state officials acquiesced in technical water cooperation at the international scale in order to maintain international donor funding in the peace process of Oslo II. However, in the domestic sphere, they defended for rights-based water cooperation, since Palestinian public overwhelmingly is concerned with controlling their own water resources in the West Bank (Ide and Fröhlich, 2015: 664; Messerschmid, 2012: 439-440; Waintraub, 2009: 25-26).

Having seen the failure of current water regime, Palestinian officials are not open to negotiate water cooperation in accordance with water needs that are preferred by Israel and the GWN project. On the other hand, Israeli officials fear that transferring water rights and control to Palestine would undermine its strategic interests and seriously threaten its national security (Aggestam and Sundell-Eklund, 2014: 15).

Israel chooses to address water problems through cooperation only in depoliticized and technical ways with a view to increasing water quantity and quality, and using water more efficiently rather than considering Palestinian water rights and historical utilizations (Aggestam, 2015: 332; Aggestam and Sundell-Eklund, 2014: 15; Alatout, 2006: 611-613; Weinthal and Marei, 2002: 462-463). Neither the former Israeli PM Sharon nor the former Israeli water negotiator Ben-Meir was willing to release Israel's water control and were open to talk only about water needs of the parties (Haddad, 2007: 50).

Palestine applies travel restrictions for Israelis in Area A of the West Bank, while Palestinians also face travel restrictions to Israeli territories, which in turn hampers cross-border meetings and trust building between them (Ide and Tubi, 2020: 9-10).

International funding plays a crucial role to facilitate environmental peacebuilding since projects and activities require considerable amount of financial support. Majority of the GWN activists underlined the lack of sufficient funding for projects, which prevented more participants and communities from being included into the peacebuilding activities, limiting the building of trust and understanding (Ide and Tubi, 2020: 10).

In addition, impartial mediation and support matter for the success of environmental peacebuilding initiatives. Nevertheless, international donors refrain from addressing the politically induced water crisis of Palestine, and they prefer

technical solutions which do not go against Israel's hydro-hegemony (Aggestam and Sundell-Eklund, 2014; Messerschmid, 2012: 441-442; Selby, 2013: 20-21: 18; Zeitoun and Warner, 2006: 454; Zeitoun, 2008: 80-83).

GWN projects are largely funded by the Swedish International Development Agency (SIDA) and by the United States Agency for International Development (USAID). Expectedly, GWN acts in conformity with international donors' technical water cooperation mentality, which derives its principles from liberal peacebuilding agenda; GWN wants to maintain the Oslo II water regime and technical water cooperation (Messerschmid, 2007: 14; Zeitoun, 2008: 80-83).

Another condition for peacebuilding activities' success is the willingness of local actors to participate in such activities. For Palestinian locals, to accept technical water cooperation means surrendering their central goal of creating an independent Palestinian state (Fröhlich, 2012: 137). They assert that water quantity and quality can be improved only after they control their water resources and achieve their water rights (Alatout, 2006: 617-618). In other words, joint development of new water resources and technical addressing of water scarcity are secondary issues for them (Waintraub, 2009: 25). They claim that discussing only water quantities and needs just help reproduce Israel's hydro-hegemony (Haddad, 2007: 50-51). In other words, Palestinians reject working in normal ways with the Israelis, while political situation is not regarded as normal due to Israeli occupation (Harari and Roseman, 2008: 33).

West Bank Palestinians, for instance, fiercely resisted against the GWN's cooperative initiatives in the context of Israeli occupation; participants of the GWN's peacebuilding activities are regarded as normalizing the unjust situation; and eventually EcoPeace lost its working permission to carry out its GWN project in the West Bank's public schools (Ide and Tubi, 2020: 9).

Furthermore, since 2005, Palestinians have been organizing anti-normalization movement against Israel. They accuse people, NGOs, donors and institutions that do not overtly address and resist against Israeli occupation of making normalization with Israel (Schierholz, 2018:123-124). In this respect, Palestinians viewed GWN activists as normalizers and traitors (Djernaes et al., 2015: 74; Harari and Roseman, 2008: 33-34).

On the other side, Israeli public has been content with Israel's hegemony over water resources, and thus oppose negotiating water with Palestinians or giving them any water concessions (Waintraub, 2009: 25). Israeli families wanted to cancel GWN projects in their children's schools for political and security reasons, and in general they approached GWN activities with skepticism and apathy (Ide and Tubi, 2020: 9).

GWN's activities involving youths and adults are mostly one-time events and they enable only a few days of meeting among adversaries, which is not sufficient to challenge the negative perceptions and thus to build trust and understanding (Ide and Tubi, 2020: 10; Kramer, 2008: 27); positive impact of short-term peacebuilding activities can fade away quickly when people turn to their homes with limited or no communication after meetings (Kupermintz and Salomon, 2005: 295).

Dresse et al. (2019: 105-107) underline that mutual interests and power symmetry are required to achieve successful environmental peacebuilding. However, in the case of Israeli-Palestinian water crisis, Palestinian water interests, which consistently involve the control of their water rights in the West Bank, do not have mutuality or conformity with Israeli water interests, which seek to maintain Israel's hydro-hegemony and to cooperate only so as to increase water quality and quantity, and to use water more efficiently. Even though both parties seem to use water as a peacebuilding means and with a desire to protect and improve water resources, in fact, they want water cooperation to realize their mutually exclusive national interests (Ide and Fröhlich, 2015: 668; Fröhlich, 2020: 25).

On the other hand, Israel's power asymmetry in terms of human resources, economic development and military creates obstacle for Palestine to attain the best possible water outcomes in the region (Jägerskog, 2018: 215). In this respect, the Oslo II water regime reflects the interests and hydro-hegemony of Israel, enabling Israel to maintain the control of water resources in the West Bank and to block Palestinian water infrastructure and well-drilling projects thanks to its veto right in the Joint Water Committee (Selby, 2013: 7).

In sum, several important conditions articulated by scholars of environmental peacebuilding do not exist in the Israeli-Palestinian context and this situation prevents peacemakers from building trust, understanding and peace among the adversaries.

3.10. CONCLUSION

This chapter firstly introduced EcoPeace Middle East and its most prominent initiative Good Water Neighbors project together with its activities and strategies. Thereafter, positions, policies and strategies of Israel, Jordan, Palestine and GWN project were presented in order to clarify how those parties approached water cooperation. Finally, GWN initiative was evaluated and criticized from the perspective of political ecology, defending that depoliticized/technical water cooperation of the GWN project helped reproduce the status quo of unequal water distribution and power asymmetries that mainly serve the interests of hydro-hegemon Israel.

The final chapter will evaluate and summarize the findings of critical political analysis of the EcoPeace Middle East's Good Water Neighbors project together with some suggestions for future studies in this research field and interest.

CONCLUSION

This thesis sought to critically analyse EcoPeace Middle East's Good Water Neighbors Project, a project with a claim to peacebuilding among the three historically adversary communities of Israel, Palestine and Jordan through cooperation over water-related issues, by using perspectives from political ecology. It also looked into whether conditions for successful environmental peacebuilding existed or not.

It has found out that conditions for environmental peacebuilding (absence of recent violence, support of high-level political elites, international funding and impartial mediation, willingness of local actors, existence of mutual interests and power symmetries) do not exist in the Israeli-Palestinian water cooperation.

This thesis is based on two research questions: Does EcoPeace Middle East's Good Water Neighbors project increase peace and equity via transboundary water cooperation? Or does it just help reproduce the status quo of unequal water distribution and power asymmetries among Israel, Palestine and Jordan?

The thesis hypothesized and confirmed that depoliticized and technical water cooperation has contributed to reproducing and reinforcing the status quo of unequal water distribution and power asymmetries among the parties rather than increasing peace and equity through environmental peacebuilding initiatives of GWN.

GWN initiatives have not decreased unequal water allocation between Palestine and Israel, and the latter still continues to enjoy nearly total control of shared water resources. Israel has failed to materialize the proposed projects of the 1994 Jordan-Israel Peace Treaty and has not supplied the full amount of 50 mcm/y of potable water until today. GWN initiative has neither lobbied for the completion of these proposed projects or for the supply of 50 mcm/y of potable water for Jordan. Power asymmetries among the EcoPeace Middle East's partners have not been positively affected by the GWN project. Rather than contributing to an increase in the ideational, bargaining and economic power of Jordan and Palestine, this project mainly involved technical water cooperation, which has not touched upon these political issues, and normalized the unjust situation in favor of the Israeli side.

GWN project marginalized Palestinians' right-based water cooperation position and depicted water scarcity as naturally induced without emphasizing the

socio-political vulnerabilities, which actually derive from the occupation (Mason, 2013: 302-303; Reynolds, 2017: 716). However, Palestinian position underlines that water scarcity mainly stems from Israeli occupation of its water resources and Israeli restrictions for Palestinians to drill new wells in Area C of the West Bank (Alatout, 2006: 616-617; Fröhlich, 2012: 136; Messerschmid, 2012: 439-440; Waintraub, 2009: 25-26). Hence, this depoliticized water cooperation was faced with a strong Palestinian opposition to cooperate with Israel and triggered an anti-normalization trend (Aggestam and Strömbom, 2013: 122). Palestinians continued to reject water cooperation with Israel in the context of Israeli occupation since 1967 (Harari and Roseman, 2008: 33-35).

The water cooperation understanding of Israel and GWN did not address water rights and historical utilizations, but rather promoted technical water cooperation to find new water supplies such as through desalination or wastewater recycling, and to preserve and improve the existing water resources (Aggestam, 2015: 335; Aggestam and Sundell-Eklund, 2014: 15-16; Alatout, 2006: 611-613). That is to say, technical water cooperation strategy of Israel and GWN overlooked structural inequalities which, in fact, generate water scarcity for Palestinians in the first place, and lead to serious human grievances and insecurities (Zeitoun and Mirumachi, 2008: 305-306; Reynolds, 2017: 716; Ide, 2020: 3; Ide, 2021: 18).

Palestinian locals believe that they could improve their socio-economic conditions only by controlling their own water resources (Messerschmid, 2012: 439-441; Messerschmid, 2007: 20; Waintraub, 2009: 31). Since Palestinians regard water as crucial to establish their own state, accepting technical cooperation meant surrendering Palestine's central goal of creating a nation-state (Fröhlich, 2012: 137). Palestinians also asserted that their sustainable development can only be possible if they have their own territories and water resources (Waintraub, 2009: 31; Messerschmid, 2007: 20).

Peacebuilding initiatives between Israel and Palestine such as GWN project directed attention away from the Israeli occupation and unequal water distribution (Ide, 2020: 3) and, in this respect, GWN initiatives reproduced the unequal water and territorial arrangements in the West Bank (Zeitoun and Mirumachi, 2008: 305-306).

Expectedly, due to its superiority in economy, military and human resources, and to its success to receive international support both in economic and ideational

aspects, Israel is far more successful than Palestinians to set the water cooperation agenda, to shape water-related perceptions and to sanction its hegemonic water position which is accepted by the international community (Zeitoun, 2008: 80-83). This large power asymmetry prevents Palestine from securing the most beneficial water cooperation outcomes for itself, while it enables Israel to promote its water-related interests further (Jägerskog, 2018: 215).

In this respect, with a view to challenging the hegemonic position of Israel, weaker sides' perspectives, interests and positions should be explained to the public and policymakers of both parties as well as to international donors and NGOs. GWN project can be part of such a counter-hegemonic strategy in order to articulate Palestinian interests at the domestic and international spheres on the basis of international law.

If can be formulated and implemented effectively, a counter-hegemonic strategy could change the predominant water cooperation trend, which only favors apolitical/technical solutions, and might result in directing the attention of domestic and international audiences to water rights and equal water distribution in future water cooperation negotiations and agreements. A change in the behavior of third parties in the Israeli-Palestinian peace process might help reinforce such a strategy (Waintraub, 2009: 23).

For effective water cooperation, weaker riparian states' water rights and needs should be acknowledged and capacities be developed, since water issues are inherently politicized. Mutual benefits in water cooperation and peacebuilding initiatives in the Middle East cannot be achieved as long as the existing power asymmetries are allowed to create asymmetrical outcomes favoring the hydro-hegemon. (Kramer, 2008: 31). Equitable water-sharing needs to be based on socio-economic needs and international law (Aliewi and Assaf, 2007: 30-31).

Although international water law recognizes the legitimacy of water rights of the upstream riparian states and of water rights based on historic or prior utilizations, it does not set forth or authorize exclusive or sole water rights either for upstream country or for the riparian state, which may have historical rights or prior use (Article VIII of the Helsinki Rules, 1967). Therefore, in line with the principles of international water law, historical water rights of Israel and upstream water rights of Palestine had

better be reconciled through their direct negotiations with a view to vital human needs and equitable sharing (Shuval, 2007: 11).

Relatedly, if peace between Israel and Palestine is aimed and desired, Israel should be persuaded to release the control of the wells in the West Bank and to reduce its water utilization from the water resources of the West Bank to a considerable extent in order to decrease unequal water distribution and to enable Palestinian water infrastructure development and control. In this regard, Shuval (2007: 13-15) suggests that Israel should release the control of 200 mcm/y of water to Palestine (150 mcm/y from the Mountain Aquifer and 50 mcm/y of water from the Jordan River), which can meet just 45% of the Palestinian minimum water requirements in the year of 2025; and he adds that the remaining 55% of Palestinian water needs in the year of 2025 can be supplied jointly by Lebanon and Syria, which will correspond to 250 mcm/y of water and equals to less than 1 per cent of their total water resources.

Moreover, Weinthal and Marei (2002: 464-465) suggest that third parties can compensate Israel's relinquishing of control of water resources to Palestine through funding Israeli projects, which produce alternative water supplies; and that third parties can also fund projects that improve the quality of Palestinian water infrastructure and water resources together with their support for Palestinians to develop additional water resources. All in all, this would help reduce power asymmetries and would be a step towards equitable water sharing.

Nevertheless, these suggestions can only come true if Israel's hegemonic technical water cooperation strategy is challenged effectively with the change in the behaviour of international donors, NGOs and influential third parties such as the US and the EU. Only then it becomes possible to address unequal water distribution and power asymmetries between the parties and to articulate the importance of international law to ensure equal water allocation.

Otherwise, promoting purely technical water cooperation strategy will not attract Palestinians who consistently demand for their water rights; and this technical cooperation rationale will only help Israel to cement its hydro-hegemony while masking structural violence and inequalities in the region.

Since GWN's water cooperation strategy is consonant with Israel's interests, GWN's projects and initiatives do not satisfy the needs of Palestinians, resulting in the

perpetuation of their traumas stemming from the Israeli occupation and their lack of control over water resources in the West Bank. Eventually, this status quo is bound to hinder peace and trust building. If GWN genuinely wants the latter, it should change course and start promoting the rights-based water positions and policies of Palestinians via the media and internet. It should also put pressure on international donors and third parties to increase the economic, ideational and bargaining power of the weaker Palestinian side so that Palestinians can attain the best possible outcome from their water negotiation and cooperation with Israel with the help of international law.

Nonetheless, given the current trends and situation in the region, it is unlikely that a counter-hegemony against Israel will appear in the near future. Rather, Israel's hegemonic control of nearly all of the region's water resources are far more likely to persist as long as the power gap between Israel and its adversaries widens and the Israeli government keeps receiving the support of international donor community and NGOs.

As for the suggestions for future studies, scholars are advised to deploy critical analyses of environmental peacebuilding agents and acts by benefiting from the rich tools embodied in social constructivism, political ecology, feminism and Marxism in order to identify what works and what does not work. They are also well advised to investigate politicized/rights-based water cooperation initiatives in highly politicized contexts like the MENA region in order to assess whether such strategy enhances peace and cooperation among former adversaries or just reproduces the status quo just as technical water cooperation does.

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