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Water Scarcity in the Eastern Mediterranean and Its Implications for the Security of Israel

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Abstract

The Middle East has long been associated with conflicts and insecurity. The region suffers from various ideological, sectarian, and identity conflicts; regardless, in this fragile scenery, some crucial problems lead to conflicts beyond the variables mentioned above. For example, water scarcity significantly contributes to the instability in the region. This thesis aims to explore the problem of water scarcity in the Eastern Mediterranean and how it impacts the security of Israel. The thesis investigates water scarcity as a national security problem and the hydro politics of Israel by embracing a historical approach. In addition, Copenhagen School's Securitization Theory helps to explain the ‘’us vs. them’’ mentality that dominates the Israeli security approach and facilitates zero-sum security practices. The transboundary water resources cannot be hegemonized; thus, the way Israel securitized the water scarcity problem is related to the pre-existing security threats, which are integrated into the Arab-Israeli, and in particular, the Israeli-Palestinian conflicts. It is found that Israel is a pivotal actor in water management technologies, yet due to the zero-sum practices it is extremely difficult for cooperative dynamics to function properly in the Eastern Mediterranean; and thus, regenerates an environment of insecurity for Israel. Moreover, understanding the dispute over water from the Israeli security perspective could elucidate the deeper analysis of regional security and regional cooperation, which could provide insights into the patterns and trends for the future as well.

Keywords: Water Scarcity, Israel, National Security, Eastern Mediterranean, Post-Cold War

List of Abbreviations

DOP - Declarations of Principles

ICCIC - Israeli Climate Change Information Center

IDF - Israeli Defence Forces

IPCC - Intergovernmental Panel on Climate Change

UN - United Nations

UN-Water - United Nations Water

UNESCO - United Nations Educational, Scientific and Cultural Organization

UNEP - United Nations Environment Programme

JWC - Joint Water Committee

MDG - Millennium Development Goal

NSC - National Security Council

PLO - Palestinian Liberation Organization

RRM - European Union Rapid Reaction Mechanism

SDG - Sustainable Development Goal

UNFCCC - United Nations Framework Convention on Climate Change

UNGA - United Nations General Assembly

UNSC - United Nations Security Council

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Introduction

Water scarcity is one of the main challenges in the 21st century. Lack of water resources and inadequate access to water affect billions of people worldwide. There are two major factors that contribute to water scarcity: human impact and environmental degradation. While population growth and urbanization increase the demand for water, environmental changes such as climate change negatively affect the water sources. The logic is quite simple, in which climate change accelerates the temperatures worldwide and it disturbs the hydrological cycle. In recent decades, there has been a trend of portraying essentially environmental issues such as water scarcity from a security perspective. Accordingly, water scarcity is not only a threat to human security but also to national security and international security. When it comes to transboundary water resources, there is concern regarding resource competition and the possibility of water wars. International organizations, such as the UN, recognize the relationship between water scarcity and national security. Subsequently, the security perspective influences water policies.

That being said, the water scarcity problem is more visible and detrimental in certain areas of the world than in others. The reason behind this could be literally scarce water resources, inefficient water management, or a combination of both. The Eastern Mediterranean, or the Levant, is one of the regions that is associated with high water scarcity. The region is composed of five countries: Israel, Jordan, Lebanon, Syria, and the Palestinian territories. Consequently, each of these countries has been challenged by water scarcity problems for decades.

The case of Israel is unique in the sense that Israel managed to be a pivotal country in water management globally and no longer suffers from water scarcity to a large extent compared to its neighbors in the region. Without a doubt, this is thanks to innovative water technologies such as desalination, drip irrigation, and wastewater recycling. Israel not only depends on these technologies but also uses public awareness campaigns to create awareness among Israeli citizens. It is a point of consideration for the difference between Israel and the other Eastern Mediterranean countries. Since the region has witnessed endless conflicts of all sorts related to various reasons, one could expect water as a vital source of human life posing as a potential driver of conflict in the region

as well. In this context, this thesis tries to explore the relationship between water scarcity and national security with Israel in focus in relation to its neighbors.

1.1. Research Topic and Research Question

The purpose of this thesis is to explain water scarcity as a national security threat for Israel. Therefore, this thesis tries to explain the following question: How does the national security rhetoric influence the securitization of water in Israel, and in addition, how does the securitization of water impact Israeli water politics?

Henceforth, the ultimate aim is to analyze the application of securitization theory to actual practices by examining Israeli water politics. This thesis explores some key questions. It examines the nature of water scarcity in Israel and the wider Eastern Mediterranean by covering the underlying reasons. It analyses the transboundary water system in the Eastern Mediterranean to show the shared water sources. It explores the role of climate change regarding water sources and water scarcity. It tries to explain the broadening of security studies after the Cold War and how environmental-related concerns were included in the security debates by examining the relationship between water scarcity, transboundary water resources, resource competition, and national security. It further shows the relationship between Zionism and water and the national security discourse in Israel. The Israeli national security doctrine then becomes the basis to explain the Copenhagen School's securitization theory to elaborate on the securitization of water in Israel. It explores the impact of securitization on cooperation efforts via the concepts of hydro-hegemony and environmental unilateralism. Finally, this thesis examines thoroughly the water politics in Israel on the international level and with its immediate neighbors in the Eastern Mediterranean (Palestine, Jordan, Lebanon, and Syria) in order to show the contrast in different levels and how securitization of water affects water politics.

1.2. The Importance of the Research

The designated topic is important for two reasons, on a global level, environmental problems are becoming put into the political and security agendas of the states. Most individual states, regional organizations like the EU, or international organizations like the UN, have come to address environmental issues in a serious manner and they have

come up with different agendas to implement or policy goals to reach. With climate change becoming a dramatically integrated subject into politics, the problems surrounding water scarcity definitely deserve attention.

Regarding the specific case of the security of Israel, water scarcity is a problem that has been both on the political and security agenda even prior to the formation of the state of Israel. With the rise of climate change, it is argued that the situation is expected to worsen. In this case, strong regional institutions can ease the water insecurity and become a model with possible spill-over effects. Yet, Israeli national security rhetoric illustrates the limitations of securitization on cooperation and gives clues about the possible future. Especially, with the ongoing war the findings can elucidate this point better.

1.3. Methodology

This thesis follows a qualitative approach and embraces a literature-based discussion for the designated topic. The main focus of the thesis is the period between 1990 and 2020; therefore, a historical perspective is adopted. Throughout the thesis, some background information is given in order to better clarify.

The primary sources include official documents and reports from the Israeli Government, the United Nations, the World Bank, Amnesty International, OECD, UNESCO, and bilateral agreements between Israel and its neighbors. Recent publications from the UN, UN-Water, and the IPCC are utilized to explain data on climate change and water scarcity. The Israeli Government has many reports on water scarcity and water management published by governmental units such as the Ministry of Finance, the Ministry of Environmental Protection, and the Water Authority of Israel.

The research design is supported by quantitative data that are shown in the tables in Chapter 2 and Chapter 5. While the tables in Chapter 2 are from the data source of World Bank Data Indicators, the table in Chapter 5 is provided from the Oslo II Accord.

The literature on post-Cold-War security, water scarcity, transboundary resources, resource competition, water wars, and the weaponization of water is used widely for the research design. In this context, there are many studies focusing on the Eastern

Mediterranean as a whole and the bilateral relations between Israel and Palestine and Israel and Jordan. This thesis merged these studies taking Israel as the center and organized the research design accordingly. Unless to provide background information, the literature review includes the research dated from the 1990s. The thesis is supported by existing laws, international, and bilateral treaties, and newspaper articles.

The theoretical foundation of the thesis is the securitization Theory by the Copenhagen School. The thesis tries to explain the link between water scarcity and national security in Israel with this theory. Furthermore, by building on the securitization Theory, water politics is explained by concepts such as hydro-hegemony and environmental unilateralism.

1.4. Structure

The research design is divided into four main chapters. The first chapter, Water Scarcity In Israel And the Eastern Mediterranean, discusses the reasons behind the water scarcity in Israel and the Eastern Mediterranean. There are several tables in the chapter that show the contemporary data of the level of water scarcity, the factors that contribute to the supply-demand imbalance such as population and urbanization, and the access to water and sanitation. These tables show the 30-year period between 1990 and 2020 in 5-year periods; and furthermore, include all Eastern Mediterranean countries. The chapter introduces the main water resources in Israel and how they are being used. In this sense, the natural and man-made water resources are divided. For the natural water sources, the main lakes, rivers, and aquifers are described. The important point is the transboundary characteristics of these sources. As such, the transboundary water system and with which countries Israel shares its water sources are explained. On the other hand, the man-made water resources reveal the water management practices in Israel. Specifically, desalination, drip irrigation, and wastewater recycling are explained. In this way, the difference between Israel and its neighbors can be understood.

The second chapter, Water Scarcity and Security, starts by examining the broadening of Security Studies and the literature on environmental-related security threats. This thesis recognizes climate change as an important factor for water scarcity in the recent decades acting as an accelerator. The chapter then moves on to explain how and why water

scarcity can be a component of national security. The concepts of ‘water wars’ and ‘weaponization of water’ are of high importance in serving the general discussion.

The third chapter, Security and Securitization of Water in Israel, specifically and solely focuses on the relationship between water and security in Israel. The chapter begins with a general overview of the security doctrine of Israel between 1990 and 2020. The international security dynamics that shaped Israeli security after the Cold War is crucial. In addition, the special relationship between Zionism and water is elucidated in a historical manner. The part on the securitization of water is explained by Copenhagen School’s securitization Theory. Basically, the Societal Complex part of the securitization Theory constitutes the theoretical part of the chapter. Namely, the threats against the existence of the state have become perceived as a threat against the Israelis themselves, as a society, and as individuals; therefore, the conceptualization of security based on the rationale that the threat by the exterior is constant; and thus, the preventive and preemptive strategies of the Israeli state to fight against these threats are simply normalized. As a result, the water problem is based upon the extreme zero-sum thinking in the Israeli national security doctrine.

The fourth chapter, Securitization of Water and Water Politics in Israel, aims to show the differences between theory and practice. In other words, how the securitization process influences water politics. The chapter distinguishes the opportunities and challenges for Israel based on global and regional politics. In the global scenario, Israel is a pivotal and collaborative country. However, regionally, the security rhetoric significantly diminishes water cooperation.

Finally, the conclusion part will synthesize the findings.

1.5. Further Lines of Research

This thesis mainly embraced a historical and a political narrative. However, the water problem could be explained from other angles such as economic or religious as well. Especially, the role of economics as a facilitator for cooperation in the region in tackling the water problem could be a further research merges with the historical and political analysis. Another thing is that this thesis could not elaborate on the ongoing war in Gaza since the timetable covers between 1990 and 2020. Nevertheless, with the findings

of this thesis, the current situation can be better comprehended for future research. There are many newspaper articles on how Israel uses water as a tool of war and collective punishment. These articles are very recent and contribute to this thesis.

Chapter 1: Water Scarcity In Israel And the Eastern Mediterranean

In today's world, more than one-third of the global population is acknowledged to live in water-scarce regions.[1] The Middle East is no exception as more than 60% of the people in the area reside in places where surface water stress is either high or very high, which exceeds all other regions around the globe.[2] According to the European Environment Agency water stress develops when there is an increase in demand for water during a specific period or when low quality prevents it from being used, which subsequently results in an erosion in the quantity and quality of freshwater resources.[3] The World Bank defines water stress as a measurement of physical water scarcity, which arises from the low availability of water resources compared to the demand for water.[4] Additionally, high or extremely high levels of water stress indicate that water withdrawals account for at least 40% of the availability of surface water resources.[5]

In light of this, the most fundamental question to ask is what causes the water scarcity in the Eastern Mediterranean. Is it because of inadequate water supplies, mismanagement, or external variables such as climate change, refugee influx, and increasing populations that create a demand-supply imbalance? In a broader sense, all of these factors could be pointed out as possible reasons for scarcity in the hydrological scenery in the Eastern Mediterranean. Therefore, this chapter will first explain the determinants of water scarcity in the Eastern Mediterranean with a specific focus on Israel. The discussion will then progress to explaining both the natural and unnatural water resources; and will be followed by the overall water management in Israel. In order to understand the policy choices and challenges surrounding water scarcity, a historical approach is necessary. Respectively, the issue of climate change is discussed in detail in consideration of the fact that it is an issue that has gained significant attention in recent decades. Certainly, for Israel, it is a concerning issue as well. Without a doubt, climate change has a huge effect on water resources. In a broader sense, global warming results in the acceleration

[1] Ertharin Cousin, A.G. Kawamura, and Mark W. Rosegrant, 'The Threat of Water Scarcity', From Scarcity to Security: (Chicago Council on Global Affairs, 2019), 13, https://www.jstor.org/stable/resrep21409.6.
[2] World Bank, 'Beyond Scarcity: Water Security in the Middle East and North Africa', 2018, 1–11, https://doi.org/10.1596/978-1-4648-1144-9.
[3] 'Water Stress — European Environment Agency', Term, accessed 23 May 2024, https://www.eea.europa.eu/help/glossary/eea-glossary/water-stress.
[4] World Bank, 'Beyond Scarcity', 26.
[5] World Bank, 11.

of the hydrological cycle[6] and both the frequency and severity of droughts and floods due to the seasons getting water and drier than usual.[7] In the Eastern Mediterranean, global climate change is expected to increase the severity of climatic conditions and increase the vulnerability of Eastern Mediterranean countries.[8] Thus, the question that comes to mind is how Israel will behave in this context.

2.1. Water Scarcity in the Contemporary Period

The water scarcity problem in the region is not peculiar to the territory of one country. Considering topography, the Eastern Mediterranean is characterized by low precipitation and lower natural surface and groundwater. Moreover, anthropogenic factors, including population growth and urbanization, exacerbate the stress on water resources and contribute to the prevailing water scarcity. The data provided by the World Bank can elucidate some of the crucial determinants of physical water scarcity. While Figure 1. shows the annual freshwater withdrawals in Israel, Jordan, Lebanon, and Syria between 1990 and 2020, Figure 2 shows the levels of water stress.

Table 2.1. Annual freshwater withdrawals, total (billion cubic meters)[9]

	1990	1995	2000	2005	2010	2015	2020
West Bank and Gaza	-	-	3	4	3	3	4
Israel	1.6	1.5	1.6	1.4	1.3	1.1	1.3
Jordan	0.8	0.9	0.9	0.9	0.9	0.9	0.9
Lebanon	1.2	1.3	1.3	1.3	1.5	1.8	1.8
Syria	11.2	13.5	15.1	14.1	14.1	14.0	14.0

[6] Cousin, Kawamura, and Rosegrant, 'The Threat of Water Scarcity', 18.
[7] UN, 'The United Nations World Water Development Report 2024: Water for Prosperity and Peace' (UNESCO, 2024), 14, https://unesdoc.unesco.org/ark:/48223/pf0000388948.
[8] Tariq Al-Olaimy |, 'Climate Change Impacts in the Levant | EcoMENA', 28 May 2022, https://www.ecomena.org/climate-change-levant/.
[9] 'World Development Indicators | DataBank', accessed 15 February 2025, https://databank.worldbank.org/source/world-development-indicators/Series/ER.H2O.FWTL.K3.

Source: World Development Indicators

Table 2.2. Level of water stress: freshwater withdrawal as a proportion of available freshwater resources[10]

	1990	1995	2000	2005	2010	2015	2020
West Bank and Gaza	-	-	40.1	58.2	38.6	41.5	50.3
Israel	135.7	132.2	139.2	121.3	115.6	98.9	110.1
Jordan	92.5	96.2	82.6	95.9	98.9	96.2	104.3
Lebanon	38.3	42.6	41.1	35.6	47.2	58.8	58.8
Syria	99.7	120.2	134.2	126.0	125.2	124.4	124.4

Source: World Development Indicators

Hydrologically, Israel is located in a transition zone between the hot and arid southern section of West Asia and the cooler and wetter northern Mediterranean region.[11] Tal (2017 127) defines the hydrological situation in Israel to be a temporal and geographic asymmetry' with the North reflecting a Mediterranean climate and receiving tropical levels of precipitation, and the South having the opposite trend and reflecting a desert climate.[12] Since the region is connected to transboundary water resources such as rivers, lakes, and aquifers, what makes Israel unique lies in its ability to utilize and manage these physical water sources differently and ultimately more efficiently than the other countries in the Eastern Mediterranean.

2.2. Water Management in Israel

[10] 'World Development Indicators | DataBank'.
[11] Ministry of Environmental Protection, State of Israel, *Israel's Second Biennial Update Report* (2023), 16, https://unfccc.int/sites/default/files/resource/2nd%20Biennial%20Update%20Report%202021%20final.pdf.
[12] Alon Tal, 'The Evolution of Israeli Water Management: The Elusive Search for Environmental Security', in *Water Security in the Middle East*, ed. Jean Axelrad Cahan, Essays in Scientific and Social Cooperation (Anthem Press, 2017), 127, https://www.jstor.org/stable/j.ctt1jktqmk.11.

As an Eastern Mediterranean country, Israel has been struggling with water scarcity for decades. The question to be asked is how can a severely water-scarce country manage to become a pivotal actor in water management, and even further, able to have a water surplus to sell to its neighboring countries? This section will try to answer this question.

According to the World Bank (2018 54), there are three strategies to combat physical water scarcity: using less water, reallocating water, and providing/creating more water.[13] All these strategies are to balance the demand-supply chain. It can be argued that Israel is a good fit to analyze them. First and foremost, Israel is making sure to utilize every available physical water resource. In this vein, water management in Israel revolves around high-technology projects that aim to create new water supply and public awareness campaigns. These methods are to make sure that there is no waste and to reduce and realign demand.[14] Finally, as the third stage focuses on creating water, Israel's engagement and exceptional role in non-conventional ways of water resources could be pointed out.

Water consumption is dependent on two pillars: natural resources and unnatural resources, which are based on strategies for meeting water demand. In order to provide a profound analysis, first, the natural water sources are forming the physical supply and limitations of the water availability, and second, the unnatural water resources as a response to the lack of physical availability should be explained. The unnatural water resources, or the non-conventional ways of water management, will shed light on the innovative water policies in Israel. Based on this, a historical perspective on water management will be highlighted. This would lead to better comprehension and be utilized as background information. A final point will be regarding the challenges of water management, which is important to understand the conceptualization of security in the next chapter.

2.2.1. Water Resources in Israel

Natural water sources include surface waters such as lake basins, rivers, and underground waters such as aquifers beyond land-ocean boundaries. On the other hand, man-made water resources refer to the non-conventional ways of water consumption

[13] World Bank, 'Beyond Scarcity', 54.
[14] World Bank, 54.

strategies such as wastewater recycling, seawater desalination, or drip irrigation technologies.

2.2.1.1. Natural Water Resources

Substantially, the main natural water resources are lake basins, rivers, and aquifers. There are three main drainage areas in Israel: Western, Eastern, and Kinneret basins. While the Western flow system drains towards the Mediterranean Sea, the Eastern drains towards the Jordan Rift, the Dead Sea, and the Red Sea; on the other hand, the Kinneret Basin is handled separately.[15] In light of this, the major lake basins inside the territorial boundaries of Israel are Kinneret, Lower Galilee, Northeastern Mountain, Eastern Mountain Aquifer, Negev, and Arava basins towards Eastwards; and Western Galilee, Carmel, Western Mountain Aquifer, and Coastal Aquifer towards Westwards.[16]

The main source of freshwater in Israel is the Jordan River. Geographically, the root of the Jordan River comes from Mount Hermon in Lebanon. While the Dan and Hasbani Rivers in Jordan and Lebanon feed into the Jordan River, inside Israeli territory it flows to the Sea of Galilee, passes through the West Bank, and finally pours into the Dead Sea.[17] Thus, the Jordan River is essential for the water supply in Israel as it is the longest-flowing river, approximately covering an area of 360 km. Therefore, the Jordan River and its tributaries are of high importance since they collect rainfall from the Mount Hermon Basin.[18]

The Sea of Galilee, also known as Lake Kinneret or Lake Tiberias, is situated in the Jordan River Basin and the upper Jordan River (UCJR) watershed, which spans around 1,700 km2 and comprises approximately 920 km2 in Israel and 780 km2 in Syria and Lebanon, serves as the primary water source for the Kinneret basin.[19] Therefore, the Jordan River constitutes one of the most important water resources not only for Israel but also for neighboring countries due to the fact that it ranges in a wide range of

[15] Gavriel Weinberger et al., 'The Natural Water Resources Between the Mediterranean Sea and the Jordan River', 2012, 14.
[16] Weinberger et al., 14.
[17] Weinberger et al., 14.
[18] Uri Davis, Antonia E. L. Maks, and John Richardson, 'Israel's Water Policies', *Journal of Palestine Studies* 9, no. 2 (1980): 6, https://doi.org/10.2307/2536342.
[19] Weinberger et al., 'The Natural Water Resources Between the Mediterranean Sea and the Jordan River', 15.

cross-boundary areas. Accordingly, the Sea of Galilee turns out to be Israel's largest freshwater reservoir. However, Kinneret Lake is the world's lowest freshwater lake.[20] The Yarmouk River, which flows 140 km from Syria to the lower Jordan River, is the longest tributary of the Jordan River.[21]

In addition to this, Israel benefits from underground water. The two main underground aquifers are the Mountain Aquifer and Coastal Aquifer with other smaller aquifers of Western Galilee, Northern Galilee, Arava, Negev, and Carmel.[22] The amount and quality of groundwaters are influenced by various factors. These were summarised by Furman and Abbo (2013 135) as excessive urbanization, intensive agriculture, and excess pumping.[23] They further contend that as the larger and smaller aquifers are being used close to their bounds, more issues could arise in the future.[24]

2.1.1.2. Non-Conventional Water Resources

Non-conventional water resources are to minimize the demand-supply gap; high demand proves the inadequacy of the availability of natural sources in the long term.[25] It can be argued that Israel's dependency on natural water resources has been gradually accompanied by non-conventional means of water usage. With the growing focus on non-conventional ways of water usage beginning from the late 20th century, Israel began to restructure its water management policy around desalination, drip irrigation, and recycling with the leadership of the then Prime Minister Ariel Sharon.[26] This is the area where Israel is usually considered to be a leader on a global scale. Thus, this section will discuss the usage of these non-conventional water management, which creates inevitable environmental, political, and security concerns. Starting with desalination, desalination simply refers to the process of purifying saline water into drinkable water. In fact, desalination is not a new technology but has been used for

[20] Tal, 'The Evolution of Israeli Water Management', 2017, 128.
[21] Mark Zeitoun et al., 'The Yarmouk Tributary to the Jordan River I: Agreements Impeding Equitable Transboundary Water Arrangements' 12, no. 3 (2019): 1069.
[22] Weinberger et al., 'The Natural Water Resources Between the Mediterranean Sea and the Jordan River'.
[23] Alex Furman and Hila Abbo, 'Groundwater Management in Israel', in *Water Policy in Israel: Context, Issues and Options* (Springer Science & Business Media, 2013), 135.
[24] Alex Furman and Hila Abbo, 135.
[25] 'UN-Water-Analytical-Brief-Unconventional-Water-Resources-1.Pdf', 6, accessed 22 May 2024, https://www.unwater.org/sites/default/files/app/uploads/2020/06/UN-Water-Analytical-Brief-Unconventional-Water-Resources-1.pdf.
[26] Danielle Abraham et al., 'How Israel Became a World Leader in Agriculture and Water', September 2019, 20.

centuries and is still a popular method for producing freshwater.[27] Thus, seawater desalination is a new reliable source that provides high-quality water with economic benefits that enrich the water supply. However, this point is not entirely true as desalination is affected by climate and could be in the midst of political discussions. Regarding the environmental impact, desalination can cause saltwater to intrude into underground water sources and farmland when treated water is used for irrigation, and blocking the flow of the Sea of Galilee into the Dead Sea has caused the Dead Sea's water level to decrease.[28] Turning to the political aspect, it can be argued that large-scale desalination leads to certain issues in terms of water sharing with Israel and its neighbors.[29]

Mekorot, the National Water Company of Israel, established the first seawater desalination facility using vaporization technology to overcome the chronic water scarcity at the very Southern tip of Israel, Eilat.[30] The vaporization technology refers to the process of water passing through chambers of changing temperature and pressure, gradually evaporating while leaving the salt behind; the resulting vapor is condensed to produce desalinated water, while the remaining salty water is returned to the sea as brine.[31] This older technology of evaporation was then replaced by *reverse osmosis* technology. The energy crisis following the Yom Kippur War led to the installation of small-scale brackish water RO-desalination plants.[32] To put it simply, reverse osmosis desalinates saline water by pushing it through a semipermeable membrane, allowing water molecules to pass while blocking larger salt molecules.[33] Desalination technology is known to be the most expensive water treatment process due to the cost of construction, operation, maintenance, and energy.[34]

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[27] 'Desalination | U.S. Geological Survey', accessed 24 May 2024, https://www.usgs.gov/special-topics/water-science-school/science/desalination.
[28] Daphne Getz, 'Israel', in *UNESCO Science Report: The Race against Time for Smarter Development*, UNESCO Science Report 2021 (Paris: United Nations Educational, Scientific and Cultural Organization, 2021), 413.
[29] Eran Feitelson, 'The Four Eras of Israeli Water Policies', in *Water Policy in Israel: Context, Issues and Options* (Springer Science & Business Media, 2013), 27.
[30] Spiritos, Erica and Lipchin, Clive, 'Desalination in Israel', in *Water Policy in Israel: Context, Issues and Options* (Springer Science & Business Media, 2013), 101.
[31] 'Background - Seawater Desalination in Israel | Ministry of Finance', accessed 24 April 2024, https://www.gov.il/en/pages/project-water-desalination-background.
[32] Spiritos, Erica and Lipchin, Clive, 'Desalination in Israel', 101.
[33] 'Desalination | U.S. Geological Survey'.
[34] Spiritos, Erica and Lipchin, Clive, 'Desalination in Israel', 114.

As of today, there are five desalination plants: Ashkelon, Palmachim, Hadera, Sorek, and Ashdod, which were constructed, in order, in 2005, 2007, 2009, 2013, and 2015 with total production capabilities of some 585 million m3.[35] These large-scale desalination plants are located along the Mediterranean coast and in Eilat (the Red Sea).[36] The five desalination facilities in Israel rank among the twelve largest globally, with the Sorek plant holding the title of the world's largest.[37] Apart from the five large coastal desalination plants, Mekorot additionally operates thirty-one smaller plants, mostly in the southern region of the country, and conducts a comprehensive research program on sea, brackish, and wastewater desalination.[38] The cabinet put a target level of 1,100 million m3 to increase the volume of desalinated water by 2030.[39] Thereupon, the real-life effects of desalination are admirable since today some 585 million m3 of water per year are desalinated in Israel.[40]

Second, wastewater recycling is of high importance. Israel is the largest user of recycled effluent water for agriculture among OECD member countries, with more than 87% of wastewater effluent reused for agricultural purposes.[41] Accordingly, between 2000 and 2018, agriculture's proportion of freshwater abstractions reduced from 64% to 35% of overall abstractions.[42] In 2019, 87% of domestic wastewater was recycled and reused for agricultural, urban irrigation, and landscaping.[43] Improvements in irrigation, as described above, combined with water reuse, desalination, and groundwater recharge, are important strategies for transforming agricultural water management.[44] The introduction of recycled wastewater transformed Israel's water sector, providing heightened agricultural security.[45] The Shafdan project, which treats the majority of the wastewater in Tel Aviv, operates a separate system that transports treated wastewater

[35] 'Background - Seawater Desalination in Israel | Ministry of Finance'.
[36] 'Water-Resources-Allocation-Israel.Pdf', accessed 24 April 2024, https://www.oecd.org/israel/Water-Resources-Allocation-Israel.pdf.
[37] 'Israel: A Global Leader in Water Management and Technology', 13, accessed 1 January 2025, https://www.gov.il/BlobFolder/generalpage/facts-about-israel-2018/en/English_ABOUT_ISRAEL_PDF_Water.pdf.
[38] Spiritos, Erica and Lipchin, Clive, 'Desalination in Israel'.
[39] 'Background - Seawater Desalination in Israel | Ministry of Finance'.
[40] 'Background - Seawater Desalination in Israel | Ministry of Finance'.
[41] OECD, 'Israel's Sustainable Water Management Plans', 2022, 2.
[42] OECD, 2.
[43] Ministry of Environmental Protection, *Israel's Second Biennial Update Report*, 15
[44] UN, 'The United Nations World Water Development Report 2024', 38.
[45] Tal, 'The Evolution of Israeli Water Management', 2017, 131.

from urban to agricultural areas.[46] Accordingly, the Shafdan wastewater treatment plant is the largest of its kind in the Middle East, and as of today, carries 140 million cubic meters of recycled water annually.[47]

An additional point is that the water generated from desalination and recycling is used in other non-conventional ways. Israel is using its recycled wastewater for drip irrigation and the water produced from the new sources is used to fill the existing aquifers to reclaim the overexploited aquifers.[48]

2.2.2. Historical Perspective on Water Management

With the elucidation of the various water resources concluded, attention now turns to delineating the water management strategies implemented by Israel. Central to this inquiry is the interrogation of how Israel not only has achieved self-sufficiency and turned out to be a pivotal actor but also collected a surplus for the neighboring countries.

A historical approach is needed to understand water management in Israel for several reasons. The first reason is that the water management process in Israel has not always been linear, in the sense that it has been responsive to political developments both on a regional and a global scale. Israel has managed to prioritize its water scarcity problem since its foundation and shaped its water management policies in accordance with the needs of the country. For example, the 1990s was marked by two important developments in terms of water, first was the general increasing environmental awareness worldwide, and second, the Oslo Accords. The second reason is that it could be argued that the water strategy was consistent with the needs over time with the developing technology. Thus, the historical approach would be fruitful in understanding why Israel has developed so much in water strategy and water technology, especially compared to its neighbors. This point makes more sense considering the fact that Israel is a very ‘’young’’ country. The above sections describe the natural and unnatural water resources, this section will be analyzed within that framework. As mentioned, the

[46] Alex Furman and Hila Abbo, ‘Groundwater Management in Israel’, 126.
[47] ‘Shafdan Wastewater Treatment Plant’, Mekorot, accessed 24 May 2024, https://www.mekorot-int.com/blog/project/shepdan/.
[48] ‘Artificial Recharge of Groundwater in Israel’, 13, accessed 24 May 2024, https://recharge.iah.org/files/2016/08/Israel-Schwarz-and-Bear-Israel-10apr16.pdf.

Eastern Mediterranean is considered to be not quite prepared for the water crises; however, Israel seems to give a different image. Hence, the historical analysis of the water management policies could provide an answer to this difference between the Eastern Mediterranean countries.

2.2.2.1. Until 1990

The formulation of water management strategies in Israel predates the country's establishment in 1948. As an example, Mekorot, the government agency that operates around 3000 facilities in Israel, including those for water supply, water quality, infrastructure, wastewater treatment, and desalination, was established in 1937.[49] This point provides insight into the broader discourse surrounding the treatment of water-related concerns since water has always been central to socio-political and security discourses.

A quite important project began in the initial years of the country's history, which is the National Water Carrier (NWC). NWC was designed with the efforts of the then prime minister Ben Gurion and his then-agriculture minister, Levi Eshkol in the 1950s.[50] Between the years 1959 and 1964, NWC was built to transfer the water from higher-precipitation locations in the north to arid southern parts of Israel, with a distance of 250 km.[51] It includes a wide network of tunnels, reservoirs, and pipelines. Originally, it was designed to prioritize the agricultural sector; however, as a consequence of the increasing demand, domestic use earned equal importance.[52] Today, water is utilized in many sectors such as agricultural or industrial as well as domestic use. As the purpose of NWC is the transfer of water throughout the country, it is to combat regional disparities. In this sense, this strategy is an egalitarian one. NWC was a huge success in ensuring water availability and constitutes the core of the water management system. Yet, with the construction of such a system, the nation's water supply became dependent

[49] 'Mekorot | Ministry of Energy and Infrastructure', accessed 23 April 2024, https://www.gov.il/en/pages/mekorot_water.
[50] Abraham et al., 'How Israel Became a World Leader in Agriculture and Water', 20.
[51] 'Israel: A Global Leader in Water Management and Technology', 8.
[52] 'National Water Carrier Begins Pumping | CIE', accessed 24 May 2024, https://israeled.org/national-water-carrier-begins-pumping/.

on the upper Jordan River basin.[53] As it will be further explained below, NWC is open to future challenges; and therefore, constantly under restructuring.

It can be argued that the water sector in Israel is characterized by a centralized management structure. The Water Law in 1959 annulled private ownership of all water resources including surface, groundwater, storm runoff, drainage, and sewage, and placed their management under state control[54], which originates from the statist ideology promoted by Ben Gurion. The Water Law establishes the legal framework for water rights and consumption, as well as the control of water use, water supply systems, water tariffs, and the organization.[55] In a sense, water was a tool for reaching national goals. Thus, the centralized institutional structure and the NWC allowed Israel to have a natural monopoly system.[56]

2.2.2.2. From 1990 to 2020

This period in management could be perceived as an ever-changing interplay of domestic, regional, and international needs. Domestically, the effects of population growth and the increasing water demand in the country were additionally taken into consideration for the water management strategies. Another crucial factor is the geopolitics during this period since the 1990s began with the so-called peace process, and in the coming periods witnessed numerous conflicts that helped reshape water management among Eastern Mediterranean countries. From a global perspective, the 1990s witnessed a notable increase in environmental awareness. Maneham and Gilad (2013 34) state that in 1990 the World Bank defined the water scarcity in the Middle East as *precarious* and foresaw the environmental crisis, stressing the very fragile situation in Israel -including the Palestinian territories.[57] In light of this, the contemplation of climate change is still at the heart of many environmental-related concerns with water scarcity being no exception.

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[53] Tal, 'The Evolution of Israeli Water Management', 2017, 128.
[54] Eran Feitelson and Itay Fischhendler, 'Spaces of Water Governance: The Case of Israel and Its Neighbors', *Annals of the Association of American Geographers* 99, no. 4 (2009): 733.
[55] 'Water Law, 5719-1959', accessed 16 May 2024, https://faolex.fao.org/docs/pdf/isr1321.pdf.
[56] Feitelson, 'The Four Eras of Israeli Water Policies', 20.
[57] Gila Menahem and Shula Gilad, 'Israel's Water Policy 1980s–2000s: Advocacy Coalitions, Policy Stalemate, and Policy Change', in *Water Policy in Israel: Context, Issues and Options* (Springer Science & Business Media, 2013), 34.

On a national scale, Israel has been employing different water management strategies. According to the Israeli government, one of the main ways to combat water scarcity, in addition to increasing demand, is to adjust and reduce water demand to the available supply while encouraging water conservation in the municipal sector, particularly among households, which are the primary water consumers in cities.[58] Israel has been trying to control the water demand with public awareness campaigns, pricing tactics, and regulatory measures. The Israeli Water Authority launched TV, radio, and internet campaigns on a regular basis to raise awareness of Israel's ongoing water scarcity and encourage the public to conserve water.[59] For example, with the initiative of the Water Authority in 2008, the ad campaign "Israel is Drying Up" was part of a wider public education campaign following the five-year drought; and evidently, achieved the reduction of household water consumption by 18%.[60] Indeed, the saving campaigns have demonstrated unequivocally that 10-20% of overall consumption in the municipal sector could potentially be saved.[61] In 2018, the campaign was relaunched with the name 'Israel is Drying Out Again' as Israel was experiencing its sixth year of drought.[62] Additionally, the price of water in Israel is relatively high. Although this could be interpreted as a tactic to enforce water conservation, by a simple logic it could be argued that the scarcity of a good would likely make it expensive. Thus, in Israel, water pricing is more closely related to the natural resource's actual scarcity value.[63] The water pricing policy reflects the real-life cost of the water. The public education and pricing policies are supported by regulatory measures by the government. For example, the Water Authority developed a certification program (the Blue Mark system) to promote sustainable water policies to form the foundation of the wide-scale standardization

[58] 'Israeli Experience in Water Saving in The Municipal Sector', 2, accessed 19 May 2024, https://www.gov.il/BlobFolder/generalpage/water-authority-info/he/17-Israel-Water-Sector-Water-Saving.pdf.
[59] Ministry of Foreign Affairs, *Israel: A Global Leader in Water Management and Technology*, 10.
[60] Abigail Klein Leichman, 'How to Persuade People to Cut Their Water Consumption', ISRAEL21c, 22 May 2022, https://www.israel21c.org/how-to-persuade-people-to-cut-their-water-consumption/.
[61] 'Israeli Experience in Water Saving in The Municipal Sector'.
[62] David Sedley, '"Israel Is Drying out Again": Water Authority Relaunches Conservation Campaign', accessed 19 May 2024, https://www.timesofisrael.com/israel-is-drying-out-again-water-authority-relaunches-conservation-campaign/.
[63] Nir Becker, 'Water Pricing in Israel: Various Waters, Various Neighbors', in *Water Pricing Experiences and Innovations*, ed. Ariel Dinar, Víctor Pochat, and José Albiac-Murillo (Cham: Springer International Publishing, 2015), 181–99, https://doi.org/10.1007/978-3-319-16465-6_10.

operation.[64] Ultimately, the purpose of the Blue Mark system is to encourage both consumers to utilize water-saving equipment and importers and manufacturers to import/produce water-saving devices.[65] The Israeli government defines these regulations as 'The strategy is based, on the one hand, on activities and measures to encourage and raise the public awareness, and on the other, on supervision, enforcement and punishment'.[66] Thus, one of the main aims of the demand side was to employ existing natural water sources to the maximum and conservation of water.

In this vein, a couple of points can be made. First and foremost, it is seen that the pricing policy in Israel is the same for everybody. In other words, Israel does not charge the population in the explicitly water-scarce part of the South more than the relatively water-rich part of Israel in the North. Hereby, as stated previously, water management keeps its egalitarian nature. However, a different picture is seen regarding the Palestinian population. Thus, the question remains whether the right to water is seen as a human right, which is ultimately related to the security of the individual. It can be argued that public awareness campaigns have two goals in addition to reducing water demand by conservation, which are compelling the hydro-hysteria and creating societal consciousness. Namely, the actual scarcity is embedded in the mind of not only the individual but also the society. This creates a further mentality of scarcity at a cognitive level in society and eventually shapes state policies.

Moving on with the supply side, from the 1990s the Israeli water management sector began to be reshaped. The authorities realized that dependency on natural water sources solely was putting Israel in a highly vulnerable position. The innovative water technologies that allowed Israel to not only sustain itself but also reach a water surplus were needed for hydro-security. With the consideration of population increase, high levels of urbanization, increasing industrialization, and potential immigration it was realized that alternative water resources needed to be produced. For example, the 1990s was marked by the collapse of the Soviet Union, there was a huge migration flow to Israel from the former Soviet territories. In addition, Israeli authorities have been trying

[64] 'Israeli Experience in Water Saving in The Municipal Sector', 11–12.
[65] 'Israeli Experience in Water Saving in The Municipal Sector', 11–12.
[66] 'Israeli Experience in Water Saving in The Municipal Sector', 39.

to attract the Jewish population all around the globe, which adds to the demand side by increasing the population.

Therefore, until non-conventional ways of water use were common, the attention stayed primarily on the utilization of existing water resources to the utmost. Although there were attempts for small desalination projects prior, these were never a reality. However, the supply side has steadily gained importance as the demand side of the equation is exhausted due to the severe freshwater use. Specifically, desalination became a realistic policy solution following the severe drought in 1999 and 2000.[67] The Ministerial Committee on Economics published Resolution 8211 on 18 July 2000 over the development of non-conventional water resources, which signified the onset of the breakthrough in the policy impasse.[68] Accordingly, desalination was at the core of the non-conventional water strategies. As noted above, the generated water is not only employed for domestic and agricultural usage but also for other non-conventional water resources such as drip irrigation. It can be argued that the last two of the above-mentioned strategies proposed by the World Bank (2018 54) in combating water scarcity, which are the reallocation of water, and the creation of water, are achieved via non-conventional ways.[69] Israel has achieved to generate a new source of water from unusable water employing seawater desalination and water recycling and has reallocated these new sources for other purposes, i.e., domestic use, agricultural use, industrial use, and environmental conservation. Thereupon, Israel targets the supply side with its non-conventional water strategies. These can be analyzed within the framework of smart water management. Currently, Israel aims to improve its existing water technologies and in pursuit of new technologies.

A crucial state agency in the achievement of this success is The Water Authority, or in its full name the Governmental Authority for Water and Sewage, in charge of water regulation established in 2007. Accordingly,

> The Authority is responsible for the conservation and rehabilitation of natural water sources, development of new water sources, and supervision of water consumers and

[67] Feitelson, 'The Four Eras of Israeli Water Policies', 24.
[68] Gila Menahem and Shula Gilad, 'Israel's Water Policy 1980s–2000s: Advocacy Coalitions, Policy Stalemate, and Policy Change', 44.
[69] World Bank, 'Beyond Scarcity', 54.

> producers so to efficiently provide water and sewage services of maximum quality and reliability, while maintaining sustainability, for the well-being of the residents of the State of Israel.[70]

Today, Mekorot operates under the Water Authority. The Water Authority reflects the centralized and integrated water management system.

In light of this, Israel happens to be a pivotal country concerning water technology and water management not only in the region but also on a global scale. The Israeli government explains that

> In the past decades, Israel achieved a water miracle. By adopting a holistic approach to water consumption that encompasses good management, high-tech development and public education, Israel transformed from a water-parched nation to a global leader in the water sector.[71]

2.3. Challenges in Water Management

Despite the positive picture portrayed above, there are challenges to water management as well. The main area of focus of this section will be the challenges in water management in Israel. The main challenges can be put into order as such: demand-supply imbalance, climate change, and political effects.

2.3.1. Demand-Supply Imbalance

The physical water scarcity is a result of the overexploitation of natural water sources. In accordance, the first point of consideration is the demand-supply balance. There are quite a few factors that overwhelm the water demand. These could be high urbanization levels, unequal distribution of water, population increase, and climate change.[72] Table 2.3. and Table 2.4. show the population and urbanization levels. Israel experiences rapid population growth due to high fertility, low mortality, and immigration. While the urbanization level has been steady (above %90- between 1990 and 2020), the population level has significantly increased from 4,600,000 to 9,215,000 in 2020. As a

[70] https://www.gov.il/en/departments/general/water_authority1
[71] 'Israel: A Global Leader in Water Management and Technology', 24.
[72] Yosra Albakkar, 'Policy Direction – Water and Sanitation', August 2017, https://www.susana.org/_resources/documents/default/3-3389-189-1534142784.pdf.

result, the total consumption of water in Israel has increased by 16% between 2000 and 2019.[73] Accordingly, the rate of urbanization and the rate of total population growth have always been parallel.[74] Moreover, the population is expected to reach 11.1 million by 2030, and 15.2 million by 2050.[75]

Table 2.3. Total Population and Annual Population Growth in Israel, 1990-2020[76]

	1990	1995	2000	2005	2010	2015	2020
Population, total	4660000	5545000	6289000	6930100	7623600	8380100	9215100
Population growth (annual %)	3.1	2.7	2.6	1.8	1.8	2.0	1.8

Source: World Development Indicators

Table 2.4. Urban Population in Israel, 1990-2020[77]

	1990	1995	2000	2005	2010	2015	2020
Urban population (% of total population)	90,359	90,866	91,203	91,518	91,826	92,179	92,587

Source: World Development Indicators

[73] Ministry of Environmental Protection, State of Israel, *Israel's Second Biennial Update Report*, 13.
[74] 'CIA, Urban vs Total Population', accessed 21 May 2024, https://www.cia.gov/the-world-factbook/static/9b1662ddd0694894645c4dbdb3f11c7a/urban_IS.pdf.
[75] 'Israel at 75: A Statistical Glimpse | Ministry of Foreign Affairs', accessed 23 May 2024, https://www.gov.il/en/pages/israel-at-75-a-statistical-glimpse-24-apr-2023.
[76] 'World Development Indicators | DataBank'.
[77] 'World Development Indicators | DataBank'.

It is further important to emphasize that Israel encourages immigration from all Jewish population around the world to the homeland, which is specifically stated *in The Law of Return, Law No. 5710-1950*.[78] This law declares the right of citizenship to any Jew who chooses to immigrate to and wishes to settle in Israel based on the Right of aliyah.[79] While it would not be correct to suggest that immigration to Israel is solely due to Jewish population immigrating to Israel because of this law, there has been a steady rise in the levels of immigration. Accordingly, between the years 2002 and 2017, 184,000 net people immigrated to Israel.[80] In the period between 2010-2016, the average annual immigration was 20,716.[81] The immigration policy in Israel reflects the broader demography policy. Certainly, this is an area of topic that is more related to politics; however, population increase is encouraged by the state, which eventually affects the overall consumption and demand. Thus, it can be analyzed within the scope of this thesis. An additional point can be made regarding the territories that are under Israeli control but not in the actual borders of the State of Israel, which are the West Bank and the Gaza Strip. Israel provides water for the population in the West Bank and Gaza Strip; therefore, the population growth can cause further stress for the Israeli authorities. In Table 5, the population numbers of both the West Bank and Gaza are stated.

Table 2.5. Total Population in West Bank and Gaza, 1990-2020[82]

	1990	1995	2000	2005	2010	2015	2020
West Bank and Gaza	1,978,248	2,474,666	2,922,153	3,320,396	3,786,161	4,270,092	4,803,269

Source: World Development Indicators

[78] 'Israel: Law No. 5710-1950, The Law of Return', Refworld, accessed 24 May 2024, https://www.refworld.org/legal/legislation/natlegbod/1950/en/34127.
[79] 'Israel', in *The World Factbook* (Central Intelligence Agency, 15 May 2024), https://www.cia.gov/the-world-factbook/countries/israel/#people-and-society.
[80] 'Population Projections for Israel, 2017-2040', מרכז טאוב, accessed 21 May 2024, https://www.taubcenter.org.il/en/pr/population-projections-for-israel-2017-2040/.
[81] Ministry of Environmental Protection, State of Israel, *Israel's Second Biennial Update Report*, 24.
[82] 'World Development Indicators | DataBank'.

As seen, the Palestinian population is increasingly growing. Here lies the crucial question of how the Israeli water management system will be shaped in accordance with the existing political and military conflicts in a matter as vital as water as a human right.

2.3.2. Climate Change

A second significant challenge could be attributed to the negative effects generated by climate change. In recent decades, there has been growing attention on climate change, environmental dialogue, and sustainability. Consequently, an environmental point of view on water management would provide a holistic understanding of water scarcity.

The Israeli government recognizes climate change as a risk and acknowledges its influence on one of Israel's most vulnerable sectors, which is water.[83] Israel's freshwater ecosystems have already been severely impacted by urban and agricultural development, resulting in habitat destruction and massive pollution caused by domestic and industrial wastes, as well as water diversion for human use.[84] Henceforth, climate change is an intensifying factor for water scarcity. Cousin et. al (2019 15-18) summarise the effects of climate change on water resources as such: temperature rise causing the fastening of the hydrological cycle, change in precipitation levels, extreme weather events such as droughts or floods, change in water availability, change in water demand and supply, change in groundwater storage, increase in the sea-level.[85]

In this vein, the effects of climate change in Israel can be shown empirically. The most crucial component of Israel's climate is the rainfall regime.[86] Rainfall has decreased in the areas that feed the Jordan River in recent decades, as evidenced by the flow of large springs and a decrease in the volume of water flowing into Lake Kinneret.[87] In fact, by the end of the 21st century, first, a 10% reduction in the precipitation level is expected, second, the main water source of the Sea of Galilee, the Jordan River, is expected to

[83] 'ISRAEL'S THIRD NATIONAL COMMUNICATION ON CLIMATE CHANGE Submitted to the United Nations Framework Convention on Climate Change', 14, accessed 21 May 2024, https://unfccc.int/sites/default/files/resource/UNFCCC%20National%20Communication%202018.pdf.
[84] Marcelo Sternberg et al., 'Impacts of Climate Change on Biodiversity in Israel: An Expert Assessment Approach', *Regional Environmental Change* 15, no. 5 (1 June 2015): 898, https://doi.org/10.1007/s10113-014-0675-z.
[85] Cousin, Kawamura, and Rosegrant, 'The Threat of Water Scarcity', 15–18.
[86] Ministry of Environmental Protection, State of Israel, *Israel's Second Biennial Update Report,* 16.
[87] 'Water | ICCIC', accessed 21 May 2024, https://www.iccic.org.il/Water.

experience a decrease by more than 22%.[88] Moreover, due to the change in rainfall distribution, there is a high possibility that while the average rainfall level will decrease in the north, it will rise in the south.[89] Therefore, climate change will likely cause extreme weather conditions in Israel which can lead to droughts, floods, urban heat islands, dry rivers, and fires.[90] Moreover, climate change will lead to reduced levels of groundwater availability. That being the case, reduced groundwater availability will likely increase competition for water sources for human use, both directly by diverting water from nature and indirectly by limiting the potential artificial allocation of water to nature when necessary.[91] Climate change also has an impact on the Mediterranean Sea and Red Sea, causing rising sea levels, rising temperatures, increased evaporation, altered weather patterns, and precipitation changes.[92] This point is crucial considering Israel's dependency on the Mediterranean for desalination. As a matter of fact, climate change not only impacts the natural water sources but also the unnatural ones. In the climate change framework, non-conventional ways of water usage seem to help the over-exploitation of natural water resources. Thus, it can ease the hydro-crisis for a while. Nonetheless, a counter-argument can be added to the positive effects of these non-conventional ways. While these developing technologies are certainly fruitful in posing innovative alternatives, they come at the expense of high energy and carbon usage. For example, while desalination is a solution for the dependency on natural resources, it comes as a problem due to the increasing dependency on the Mediterranean. With climate change the seawater tends to be more salty; thus, the desalination could be less effective or could be more expensive.

Another aspect to consider is the NWC. As previously mentioned, NWC happens to be at the center of the water management system. However, as per the developments in water technologies and environmental challenges, it is seen that NWC is integrated with non-conventional water usage. In other words, Israel is reshaping and extending its water infrastructure. Desalination plays a tremendous part in the future of NWC as desalinated water has begun to be transferred with the purpose of filling the Sea of

[88] 'Climate Change Trends and Impact in Israel | Ministry of Environmental Protection', accessed 24 May 2024, https://www.gov.il/en/pages/climate_trends_and_impact_in_israel.
[89] 'Climate Change Trends and Impact in Israel | Ministry of Environmental Protection'.
[90] 'Climate Change Trends and Impact in Israel | Ministry of Environmental Protection'.
[91] Sternberg et al., 'Impacts of Climate Change on Biodiversity in Israel', 898.
[92] Sternberg et al., 899–904.

Galilee with it. Mekorot explains that *The New National Water Carrier* is a water channeling network that connects all of the desalination facilities.[93] Nonetheless, according to environmentalists, the more Israel relies on fossil fuels to power its desalination plants, the worse climate change will become due to the increased carbon emissions.[94]

Henceforth, while the ultimate goal is to balance the increasing water demand and supply, the environmental impact is crucial. The important point is that the future scenery of the effects of climate change can be approximately estimated with empirical data. Furthermore, considering the transboundary nature of the water sources in the region, they can be an exacerbating factor to the ongoing conflicts in the region along with the often overshadowed human security aspect. In light of this, certain precautions in accordance with both the domestic and the regional needs ought to be taken in the near future.

2.3.3. Political Considerations

Another argument is about the politicization of water management, which in turn results in ineffective management. Plaut (2000 21) defines Israeli water management policy to be a politicized one that prioritizes administrative and bureaucratic considerations rather than economic and market-oriented ones and suggests that this is causing additional stress.[95] Maneham and Gilad (2013 37-38) explain the intra-Israeli relations over water by explaining that the water policy is led by the nationalist group -or Zionists- who are driven by national interests where they see water as a strategic asset, which ensures sovereignty, autonomous supply, control, and land settlement. Driven by national interests, this coalition group advocates for the creation of new water resources to be the immediate and long-term solution to water scarcity.[96]

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[93] 'The New National Water Carrier – Mekorot', accessed 24 May 2024, https://www.emsmekorotprojects.com/projects/the-new-national-water-carrier/.
[94] Daniella Cheslow, 'To Combat Climate Threats, Israel to Top off Sea of Galilee with Desalinated Water', accessed 19 May 2024, https://www.timesofisrael.com/to-combat-climate-threats-israel-to-top-off-sea-of-galilee-with-desalinated-water/.
[95] Steven Plaut, 'WATER POLICY IN ISRAEL', *Policy Studies*, no. 47 (July 2000): 21.
[96] Gila Menahem and Shula Gilad, 'Israel's Water Policy 1980s–2000s: Advocacy Coalitions, Policy Stalemate, and Policy Change', 37–38.

Having said this, it can be argued that intra-Israeli relations are crucial for defining the framework of water management. With the prominence of the nationalists, water is perceived as a means and not as an end in itself. Israel uses water as a diplomatic tool in its relations with different countries in the region and world. Indeed, it is observed that Israel collaborates with different countries all over the world to share its water management strategies. Israeli authorities collaborated with different countries to exchange knowledge and expertise regarding water. An example could be the engagement of MASHAV, Israel's Agency for International Development Cooperation at Israel's Ministry of Foreign Affairs, in Central Asian or African countries in pursuit of sustainable agriculture, wastewater treatment, and drip irrigation technology.[97]

2.4. Transboundary Water Resources in the Eastern Mediterranean

Water resources that cross one or more international borders are referred to as transboundary.[98] Accordingly, the Eastern Mediterranean countries are dependent on transboundary water systems. The Jordan River Basin is crucial in this system with a total area of approximately 18,500 km2, of which 40% is in Jordan, 37% in Israel, 10% in the Syrian Arab Republic, 9% in the West Bank, and 4% in Lebanon.[99]

The annual flow into Israel corresponding to the Jordan Basin includes 138 million m3 from Lebanon (Hasbani River), 125 million m3 from Syria, and 20 million m3 from the West Bank.[100] Additionally, the three major aquifers in the system are located west of the Jordan River and are vital for the water supply of Israel, Jordan, and the Occupied Palestinian Territories: the Western (Mountain) aquifer, the Northeastern aquifer, and the Eastern aquifer.[101] As a consequence, Israel is dependent on these transboundary water resources. This point is extremely important to stress for several reasons. First, it sheds light on the overall water management policies and choices by Israel. Second, considering the challenges climate change poses, it could be argued that the Eastern Mediterranean is likely to witness possible migration flows and socio-political upheaval

[97] 'Home | MASHAV', accessed 24 May 2024, https://mashav.mfa.gov.il/.
[98] 'Transboundary Water Conflicts in the Middle East and North Africa', accessed 24 May 2024, https://assets.publishing.service.gov.uk/media/57a08c04ed915d3cfd0010f6/id21Water_4.pdf.
[99] 'Transboundary River Basin Overview – Jordan', 1, accessed 24 May 2024, https://openknowledge.fao.org/server/api/core/bitstreams/c6f96d18-fd51-43a3-9b0d-69a9dd65934b/content.
[100] 'Transboundary River Basin Overview – Jordan', 3.
[101] 'Transboundary River Basin Overview – Jordan', 3.

in the future. Finally, it elucidates the deeper security understanding in Israel. Before delving into the different management of the Eastern Mediterranean countries, it is essential to give some comparisons regarding the hydrological situation. The data in Table 2.6. and Table 2.7. shows the total population and the rate of annual population growth in the West Bank and Gaza, Jordan, Lebanon, Israel, and Syria between 1990 and 2020. As seen, there has been an increase in the population even though there were fluctuations.

Table 2.6. Population, total[102]

	1990	1995	2000	2005	2010	2015	2020
West Bank and Gaza	1,978,248.0	2,474,666.0	2,922,153.0	3,320,396.0	3,786,161.0	4,270,092.0	4,803,269.0
Jordan	3,480,587.0	4,458,195.0	5,056,174.0	5,678,534.0	6,931,258.0	9,494,246.0	10,928,721.0
Lebanon	3,593,700.0	3,959,640.0	4,320,642.0	4,643,044.0	4,995,800.0	6,398,940.0	5,662,923.0
Israel	4,660,000.0	5,545,000.0	6,289,000.0	6,930,100.0	7,623,600.0	8,380,100.0	9,215,100.0
Syria	12,408,996.0	14,313,450.0	16,307,654.0	18,583,557.0	22,337,563.0	19,205,178.0	20,772,595.0

Source: World Development Indicators

Table 2.7. Population growth (annual %)[103]

	1990	1995	2000	2005	2010	2015	2020
West Bank and	..	4.5	2.6	2.6	2.6	2.3	2.5

[102] 'World Development Indicators | DataBank'.
[103] 'World Development Indicators | DataBank'.

Gaza							
Jordan	5.0	4.1	2.1	2.6	2.2	9.2	2.1
Lebanon	1.9	1.8	1.6	1.5	0.9	2.0	-2.1
Israel	3.1	2.7	2.6	1.8	1.8	2.0	1.8
Syria	3.1	2.8	2.5	2.7	2.3	-4.4	3.3

Source: World Development Indicators

Table 2.8 and Table 2.9 show the rate of urban population compared to the total population and the rate of urban population growth annually in the West Bank and Gaza, Jordan, Lebanon, Israel, and Syria between 1990 and 2020. It is seen that Israel ranks first in urbanization followed by Jordan and Lebanon.

Table 2.8. Urban population (% of total population)[104]

	1990	1995	2000	2005	2010	2015	2020
West Bank and Gaza	67.7	70.2	72.0	73.1	74.1	75.4	76.7
Jordan	73.3	78.2	78.3	79.5	86.1	90.3	91.4
Lebanon	83.1	84.8	86.0	86.6	87.3	88.1	88.9
Israel	90.4	90.9	91.2	91.5	91.8	92.2	92.6
Syria	48.9	50.1	51.9	53.8	55.6	52.2	55.5

Source: World Development Indicators

[104] 'World Development Indicators | DataBank'.

Table 2.9. Urban population growth (annual %)[105]

	1990	1995	2000	2005	2010	2015	2020
West Bank and Gaza	..	5.2	2.9	2.9	2.9	2.6	2.9
Jordan	6.6	4.7	2.1	4.1	3.6	9.5	2.4
Lebanon	2.3	2.2	1.8	1.6	1.1	2.1	-1.9
Israel	3.2	2.8	2.7	1.8	1.9	2.1	1.9
Syria	3.5	3.4	3.2	3.4	3.0	-3.1	4.5

Source: World Development Indicators

In light of this, Table 2.10. and Table 2.11. show the percentage of the population's access to safe water and water services in the West Bank and Gaza, Jordan, Lebanon, Israel, and Syria between 1990 and 2020.

Table 2.10. People using safely managed drinking water services (% of population)[106]

	1990	1995	2000	2005	2010	2015	2020
West Bank and Gaza	..	..	73.1	74.8	76.4	78.1	79.7
Jordan	..	..	53.5	53.5	64.0	74.8	85.7

[105] 'World Development Indicators | DataBank'.
[106] 'World Development Indicators | DataBank'.

Lebanon	..	..	43.5	44.6	45.7	46.9	47.7
Israel	..	..	99.8	99.7	99.6	99.6	99.5
Syria	..	..	..	..	..	..	..

Source: World Development Indicators

Table 2.11. People using at least basic sanitation services (% of population)[107]

	1990	1995	2000	2005	2010	2015	2020
West Bank and Gaza	..	..	90.3	91.5	93.9	96.3	98.6
Jordan	..	..	98.7	98.4	98.0	97.6	97.1
Lebanon	..	..	76.9	80.9	87.4	93.9	99.2
Israel	..	..	100.0	100.0	100.0	100.0	99.9
Syria	..	..	88.4	89.4	91.1	92.5	94.3

Source: World Development Indicators

Regarding the management of these transboundary waters it could be argued there is no common approach to water, it is seen each Eastern Mediterranean country has a specific way of water management. While the other Eastern Mediterranean countries have implemented water technologies to address scarcity and growing demand, they have not been at the same scale and effectiveness as Israeli innovations. Here, the immense success of non-conventional water technologies could be pointed out, specifically desalination plants. There are desalination plants or at least projects in Jordan, Lebanon, and Palestinian territory.

[107] 'World Development Indicators | DataBank'.

In Jordan, the Aqaba-Amman Water Desalination and Conveyance Project started in 2019 and is planned to be finished by 2028. The project attempts to address water scarcity by supplying Jordan's capital, Amman, with desalinated Red Sea water at a rate of 300 mcm per year, which will be transmitted for 420 kilometers.[108] In Lebanon, the situation is more fragile as it is estimated that only 48% of the population can access safely managed water.[109] The two promising projects are the Greater Beirut Project and the Greater Beirut Water Supply Project. The former aims for the construction of a wastewater treatment plant and the improvement of the water quality in the Greater Beirut area.[110] It should also be highlighted that this project will have a significant positive environmental impact on the Mediterranean Sea as a whole.[111] The latter project's goal is to increase the availability of drinkable water in the area inside the Greater Beirut region by building and supervising bulk water supply infrastructure.[112] On the other hand, there is no large-scale desalination plant even though there have been proposals and smaller-scale initiatives in Palestinian Territories. For example, with the partnership of UNICEF and the European Union, the construction of a seawater desalination plant has been constructed, which is designed to produce 6000 cubic meters of drinking water per day for the population in Gaza.[113] A large-scale desalination plant is yet to be recognized per the needs of the Palestinian public.

If the capacity, efficiency, and output are compared then it can be concluded that Israel has a decisive superiority. It can be said that the poor management of other Eastern Mediterranean countries is due to inadequate institutional and regulatory frameworks, political enforcement, and lack of innovative technological practices. The growing effect of climate change will leave the region in a highly fragile position. Thus, as mentioned above, with water scarcity being irrefutably interlinked with food and energy

[108] 'Desalination and Pipeline Project Delivers Water to Jordan', European Investment Bank, accessed 16 May 2024, https://www.eib.org/en/projects/all/20190712.
[109] 'Lebanon', Lebanon | Globalwaters.org, accessed 16 May 2024, https://www.globalwaters.orgcurrent-page.
[110] 'GREATER BEIRUT WASTEWATER', European Investment Bank, accessed 24 May 2024, https://www.eib.org/en/projects/all/19982326.
[111] 'GREATER BEIRUT WASTEWATER'.
[112] 'Development Projects : LB- GREATER BEIRUT WATER SUPPLY - P103063', accessed 24 May 2024, https://projects.worldbank.org/en/projects-operations/project-detail/P103063.
[113] 'UNICEF Seawater Desalination Plant Helps Head off Gaza Water Crisis | UNICEF', accessed 24 May 2024, https://www.unicef.org/stories/unicef-seawater-desalination-plant-helps-head-gaza-water-crisis.

scarcity, irregular migration flows, and socio-political upheaval, the future trends might be different.

2.5. Conclusion

Although the Eastern Mediterranean countries have been struggling with water scarcity for decades, several factors intensify the situation. Increased population, immigration, and urbanization are some of those factors that increase the water demand. While Israel is a country with steady population growth and a quite high urbanization level, it manages to keep the demand-supply balance under control with smart water management, public awareness campaigns, and innovative water technologies. In this vein, the imbalance between Israel and its neighbors regarding water management is striking.

Chapter 2: Water Scarcity And Security

After the end of the Cold War, the world witnessed the broadening of non-traditional security threats. Some of them were environmental degradation, climate change, and resource scarcity. With the rise of climate change, the probability of resource competition and conflicts over shared resources have been a point of discussion. Since water scarcity is a challenge on the international, regional, and national levels, it cannot solely be considered an environmental challenge. This chapter aims to explain how water scarcity has been addressed from a security perspective in the international discourse and how it has been adopted in national security strategies. It is argued that in addition to political, economic, and demographic reasons; water scarcity has gained significant attention as a security threat to the state due to growing environmental consciousness and climate change-related concerns.

3.1. Understanding Security in the Post-Cold War Era

There is no common way of defining security as it can be and is different for everyone. The simple question of 'What is security?' has led to the development of many theories. This question is followed by the questions surrounding who should provide security, whom the security should protect against, and who should be protected. In this sense, there are many theories related to security. However, the Security Studies is a product of the Cold War. This does not signify that considerations regarding security did not exist prior, but rather it refers to the different perspectives on the meaning of security and the subsequent construction of various theories. That is why the weight of the Cold War on Security Studies should be discussed.

3.1.1. Importance of Cold War on Security Studies

The Cold War was the result of the transformed world politics after World War II. It lasted for approximately five decades between 1945 and 1991, until the fall of the Soviet Union. There are several specific characteristics that marked the Cold War. The first one was the emergence of a new super-power, which is the U.S. that not only dominated the Western bloc but also shaped the perspective, norms, and values of the so-called ''free world''. This superpower status was shared with the Soviet Union that constitutes the second important characteristic, the bipolar world order. Bipolarism can

simply be explained by the existence of two major poles in the international arena. The Cold War political scenery witnessed the U.S. and the Soviet poles in a constant rivalry, which was mostly in ideological and political-military domains along with economic and cultural ones. The third characteristic was the increasing attention to nuclear weaponry and strategies. Finally, the Cold War era was distinguished by periods of escalation of confrontation and détente.

The formulation of security rationale was molded by these specific characteristics of the time. Buzan explains that the Cold War was the catalyst for the establishment and evolution of international security studies or security studies.[114] The Cold War led to *traditional security,* which is embedded in several assumptions. The first assumption is that in the absence of a world order, *anarchy* thrives leaving the nation-states vulnerable in the international arena. This point is important for two reasons: first, it supports the claim of objectivity by asserting that states are entirely rational actors concerning peace and security; and second, it contributes to the concept of the *security dilemma* when these factors are combined. To put it simply, the security dilemma refers to a situation where efforts to build security by one actor contradictorily contribute to greater insecurity. Tang (2009 594) states:

> …The two states, however, cannot be sure of each other's present or future intentions. As a result, each tends to fear that the other may be or may become a predator. Because both believe that power is a means toward security, both seek to accumulate more and more power…Consequently, the other side is likely to take countermeasures against those defensive measures. The interaction of these measures and countermeasures tends to reinforce their fears and uncertainties about each other's intentions, leading to a vicious cycle in which each accumulates more power without necessarily making itself more secure, through a self-reinforcing or positive feedback mechanism. This vicious cycle can also lead to unnecessary thus tragic conflicts—threats of war or war…[115]

[114] Barry Buzan and Lene Hansen, *The Evolution of International Security Studies*, 1st ed. (Cambridge University Press, 2009), 158, https://doi.org/10.1017/CBO9780511817762.
[115] Shiping Tang, 'The Security Dilemma: A Conceptual Analysis', *Security Studies* 18, no. 3 (18 September 2009): 594, https://doi.org/10.1080/09636410903133050.

This point brings about another crucial question of the security studies which is who/what is the *referent object*. According to Barry Buzan security involves the process of identifying something, that is the referent object, to be secured.[116] The referent object can be anything; the state, the individual, or the planet.[117] In terms of definition, state and security are intrinsically intertwined, with a primary focus on their military and political aspects.[118] Henceforth, the Cold War security studies accept the state as the referent object.

Here, the aim is not to question the integrity and the accuracy of the Cold War thinking but to explain that these assumptions were claimed to be objective and scientific in nature. Buzan explains from an epistemological perspective the objective conception of security, which is about the presence of concrete threats defined in material terms.[119] Thus, it is a state typically characterized by a military threat against a state/nation. For example, the arms race between the U.S. and the Soviet Union was such a threat. For this reason, the security studies originally concentrated on high politics, which is related to the survival, sovereignty, and integrity of the state in order to defer to imminent threats to the state, whereas low politics has been connected to *non-existential* issues that are not entirely vital to the survival of the state such as economic and political welfare or environmental concerns. However, this does not mean that the areas of low politics were completely ignored or avoided to become a part of security studies, rather they were simply minimized. Yet, it was understood that the Cold War military tactics and wars led to serious degradation of the planet. According to the UNESCO World Heritage Convention (2010), The United States converted the Pacific Ocean into a nuclear testing zone, conducting 67 nuclear tests from 1946 to 1958, including the explosion of the first Hydrogen bomb in 1952 on Bikini Atoll in the Marshall archipelago, which had grave consequences for ecosystems and the terrestrial, marine, and underwater landscapes.[120] On the other hand, the Soviet Union attempted to irrigate Central Asia unsuccessfully using Aral Lake, resulting in desertification and pollution,

[116] Buzan and Hansen, *The Evolution of International Security Studies*, 10.
[117] Buzan and Hansen, 10–11.
[118] Barry Buzan, Ole Waever, and Jaap de Wilde, *Security: A New Framework for Analysis* (Boulder, CO: Lynne Rienner Publishers, 1997), 37.
[119] Buzan and Hansen, *The Evolution of International Security Studies*, 34.
[120] UNESCO World Heritage Centre, 'Bikini Atoll Nuclear Test Site', UNESCO World Heritage Centre, accessed 3 October 2024, https://whc.unesco.org/en/list/1339/.

as well as the loss of most ecosystem services.[121] Klubnikin and Causey (108) further argue that the Vietnam War, which lasted for two decades from 1955 to 1975, tackled crucial questions about environmental harm as a deliberate tool of aggression and was a suitable example for demonstrating the relationship between warfare, environmental health, and national security.[122]

It is argued that during the Cold War, the environment primarily served as an instrument that states were entitled to utilize, and it was partially codified in a number of treaties.[123] Consequently, if the environment is an instrument of geopolitical gains and power accumulation, then, the scarcity or degradation of various natural resources such as water, oil, or gas would be seen as a consequence of the sensitive power dynamics rather than concrete threats. In this vein, there had not been a treaty or a document that specifically addressed water scarcity as a security issue. As stated, the subject had been more of a geopolitical matter, where the relation between water scarcity and security, or resource scarcity and security, was perceived more indirectly. The definition of water scarcity as a direct security threat came much later, rather it was perceived in the larger framework of environmental degradation and the dangers it constituted. That is why it is important to point out the two important developments that contributed to the discussion of environmental protection, the 1972 UN Conference on the Human Environment and the Brundtland Report of 1987. The growing environmental consciousness towards the end of the Cold War could be visible via them.

The 1972 UN Conference on the Human Environment, known to be the first one on the management and protection of the environment, placed environmental issues at the center of global concerns and initiated a discussion on the relationship between economic growth, environmental pollution, and human welfare.[124] One consequence of this conference was the 1972 Stockholm Declaration, which stated the importance of resource management in a broader sense and brought attention to their destabilizing effect on human societies, calling for international action.

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[121] Kheryn Klubnikin and Douglas Causey, 'Environmental Security: Metaphor for the Millennium', *ENVIRONMENTAL SECURITY*, 2002, 106.
[122] Klubnikin and Causey, 108.
[123] Klubnikin and Causey, 105.
[124] United Nations, 'United Nations Conference on the Human Environment, Stockholm 1972', United Nations (United Nations), accessed 12 October 2024, https://www.un.org/en/conferences/environment/stockholm1972.

This led to the second most important consequence of the conference, which is the creation of the UN Environment Programme (UNEP) as the mechanism for environmental governance. The promotion of UNEP illustrates a shift from heavy state-centrism to international cooperation.

The second report during the Cold War, the World Commission on Environment and Development's report *Our Common Future* published in 1987, is known as the *Brundtland Report.* The report is pivotal and critical for defining *sustainable development* and in its remarks on interconnectedness across the globe for overturning the environmental challenges. In the report, very broadly, sustainable development is defined as 'Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.'[125] Moreover, the report points out the relationship between environmental degradation and national security by showing evidence from different regions in the world such as the Middle East.[126] The report suggests that governments should reinforce roles for environmental protection and resource management, specifically in developing countries.[127] The Brundtland Report has important remarks on the water issue in a more generalized fashion, where the utility of water is analyzed within a broader framework of sustainability and development. As such, water is regarded as a vital component of biodiversity and its importance is highlighted in matters of agriculture, energy, and urbanization.

It can be said that both the Stockholm Declaration and the Brundtland Report do not directly define water scarcity as a security issue; rather they describe water as an essential part of environmental management. In this light, environmental protection is perceived as critical for human health, survival, and societal sustainability. The Brundtland Report influenced several other documents regarding the global environmental agenda and shaped a thorough discourse in defining water scarcity as a security issue in the coming years.

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[125] 'Report of the World Commission on Environment and Development: Our Common Future.Pdf', accessed 3 October 2024, https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf.
[126] 'Report of the World Commission on Environment and Development: Our Common Future.Pdf'.
[127] 'Report of the World Commission on Environment and Development: Our Common Future.Pdf'.

Thus, the Cold War period of security studies focused on the direct military and strategic concerns. Nevertheless, environmental degradation, and subsequently, water scarcity were not defined as security threats. Ironically, the Cold War had contributed to the environmental problems all over the planet, which caused a momentum in environmental movements beginning from the second half of the Cold War and towards the end of the Cold War the increased environmental concerns led to the discussion of the relationship between environmental degradation, climate change, and resource scarcity to be discussed as security threats in the following decades.

3.1.2. Rethinking of Security

Rethinking of security refers to the broadening of the ‘’narrow’’ understanding of security, wrapped in the military and political bubble. Thus, ‘’Security should incorporate more than just the state as the analytical object.’’[128] Namely, security is highly subjective.

It is argued that the end of the Cold War marked the elimination of the singular threat, specifically referring to the Soviet threat, although various ‘’dangers’’ would persist in the post-Cold War period.[129] In this different scenery of politics, new threats have emerged that exceed state borders. For example, terrorism, the proliferation of weapons of mass destruction, organized crime, and interstate conflicts often driven by ethno-religious motivations have been at the center of attention. The fact that these new threats were not essentially military and could not be addressed solely via military means was the most significant contrast to the overwhelming visible threat during the Cold War.[130]

Frederking argues that security or insecurity can be seen as an objective condition or as a social construction.[131] In this context, non-traditional threats can be a direct security threat against the state. As such, this is a period of *inclusion* of a variety of other domains into the national security rationale.

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[128] Niklas Swanström, ‘Traditional and Non-Traditional Security Threats in Central Asia: Connecting the New and the Old’, *The China and Eurasia Forum Quarterly* 8 (1 August 2010): 40.
[129] John Lewis Gaddis, ‘Toward the Post-Cold War World’, *Foreign Affairs* 70, no. 2 (1992 1990): 113.
[130] ‘Solana - A SECURE EUROPE IN A BETTER WORLD.Pdf’, 3, accessed 9 October 2024, https://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/reports/76255.pdf.
[131] Brian Frederking, ‘Constructing Post-Cold War Collective Security’, *The American Political Science Review* 97, no. 3 (2003): 363–78.

The separation of the traditional and non-traditional security threats can be deceiving as Swanström (2010 36) argues they can overlap and even reinforce each other. This means that those threats may influence one another leading to further security threats that fall into the military/political domain.[132] In other words, given the unconventional and transnational characteristics of the non-traditional security issues, the traditional counter-measures could lead to further insecurity. Transnational security threats are different from more traditional security threats in that they typically appear gradually over time and have grown in scope.[133] This makes them particularly difficult for governments to handle, and as a result, many of them are more likely to use military force to counteract these threats or deal with their fallout.[134]

3.1.3. Rise of Environmental Concerns

The growing environmental consciousness paved the way for environmental-related security discussions. With the broadening of the security debate, the environment and/or its components can not only be security issues on their own i.e. the security of the planet but also could be sources of insecurity for states as well.

A large part of the dramatically increasing concerns about environmental degradation and resource scarcity was the damage the Cold War left on the planet. The above-mentioned examples of superpower experiments illustrate that the military tactics were extremely harmful to the planet and the conflicts were done in exchange for environmental sustainability. Thus, the debate on the redefinition of security has been greatly influenced by the argument that environmental degradation poses a threat to human well-being or the ecosystem that extends beyond state boundaries, and ultimately, ideas of national security.[135]

The United Nations has been the key international body for providing the basis for the international environmental agenda in the post-Cold War period. The correlation

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[132] Swanström, 'Traditional and Non-Traditional Security Threats in Central Asia', 36.
[133] Paul J. Smith, 'Transnational Security Threats and State Survival: A Role for the Military?', *The US Army War College Quarterly: Parameters* 30, no. 3 (16 August 2000): 77–78, https://doi.org/10.55540/0031-1723.1995.
[134] Smith, 84.
[135] Keith Krause and Michael C. Williams, 'Broadening the Agenda of Security Studies: Politics and Methods', *Mershon International Studies Review* 40, no. 2 (1996): 233, https://doi.org/10.2307/222776.

between environment and security has been gradually incorporated into international documents as well as national doctrines.

Beginning in the 1990s, climate change has been at the center of almost every environmental-related debate. The Intergovernmental Panel on Climate Change (IPCC) in 1990 stated that human activities are significantly increasing atmospheric levels of greenhouse gases, including carbon dioxide, methane, CFCs, and nitrous oxide, which intensifies the greenhouse effect and contributes to additional global warming, while natural greenhouse gas sources such as forests or oceans and sinks remain highly sensitive to climate shifts.[136]

In 1992, the UN Conference on Environment and Development, commonly known as the Rio Summit or Earth Summit, was held in Rio de Janeiro. This conference was a direct projection of the Brundtland Report in 1987. It indicated global environmental concerns and climate change as obstacles against global peace and security. Some important consequences were the Rio Declaration, Agenda 21, the UN Framework Convention on Climate Change, the Convention on Biological Diversity, the Declaration on the Principles of Forest Management, and the Commission on Sustainable Development. It is noteworthy to mention the United Nations Framework Convention On Climate Change (UNFCCC) in 1992, entered into force in March 1994 with 198 parties to the Convention. The objective is the stabilization of greenhouse gas levels in the atmosphere to prevent harmful human impacts on the climate. Two years later, the Kyoto Protocol was adopted in December 1997 and entered into force in February 2005. It is ratified by 192 countries. It is founded on the tenets and provisions of the UNFCCC and, per the principle of common but differentiated responsibility and respective capabilities, binds developed nations because of their share of the high levels of GHG emissions in the atmosphere.[137] Another key agreement is the 2015 Paris Agreement, which was entered into force on 4 November 2016. These agreements were for sure pivotal in the acknowledgement of climate change as a risk for security and

[136] IPCC and WMO, eds., *Climate Change: The 1990 and 1992 IPCC Assessments, IPCC First Assessment Report Overview and Policymaker Summaries and 1992 IPPC Supplement* (Geneve: IPCC, 1992), 52–54.
[137] 'What Is the Kyoto Protocol? | UNFCCC', accessed 1 November 2024, https://unfccc.int/kyoto_protocol.

long-term stability and influencing the later conventions. In all of these conventions, there are several common points:

1. Climate change is recognized as a part of environmental degradation,
2. The adverse effects of climate change are unproportionate, and it is more detrimental in vulnerable societies,
3. Climate change is utmost linked to peace and security/or the absence of it,
4. There is an emphasis on the potential conflict over resources.

Knowing that climate change is a strong influence in driving conflict, it is seen that it began to be analyzed with a security mentality and even incorporated into security policies. While the UN defines climate change as a risk to human security and global security, it is additionally seen that climate change has become a determinant of national security.

According to the Council on Strategic Risks, the U.S. The Defence Department's report titled *National Security and the Threat of Climate Change* published by the CNA report in 2007 was a blueprint in the literature because it used the term ''threat multiplier'', which became a signature phrase in the incorporation of climate change with national security.[138] It is stated that ''Climate change acts as a threat multiplier for instability in some of the most volatile regions of the world.''[139] In other words, the risks associated with climate change predominantly rise due to its interaction with and exacerbation of other environmental, economic, social, and political factors that could potentially threaten national stability.[140] It is further argued that placing climate change in an environmental box and detaching it from its interconnected issues like geopolitical, economic, or societal, then it obscures the wider implications of climate change while diminishing its perception of risk.[141]

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[138] Noel L Gerson and Sherri Goodman, 'National Security and the Threat of Climate Change', 2007, 5, https://www.cna.org/archive/CNA_Files/pdf/national%20security%20and%20the%20threat%20of%20climate%20change.pdf.
[139] Gerson and Goodman, 44.
[140] Gerson and Goodman, 6.
[141] Caitlin E Werrell and Francesco Femia, 'Climate Change as Threat Multiplier: Understanding the Broader Nature of the Risk', no. 25 (2015): 2.

Furthermore, the UN Security Council has been increasingly addressing the potential security risks climate change causes. The UNSC held five systemic debates on the relationship between climate change and security from 2007 to 2020. In the letter of 2007, *Letter dated 5 April 2007 from the Permanent Representative of the United Kingdom of Great Britain and Northern Ireland to the United Nations addressed to the President of the Security Council*, the potential drivers of conflict in the face of a changing climate has been recognized as scarce resources such as energy, water, food, and other along with population movements and border-related disputes.[142] It was also emphasized that ‘’No other international forum has yet addressed these issues from this perspective.’’[143] This letter was directed to the Security Council itself, meaning that climate change, which has been associated with non-security bodies until now, was brought to the Security Council.

After this letter, a Security Council meeting was held by 14 members under the presidency of the United Kingdom of Great Britain and Northern Ireland on 17 April 2007 (S/PV.5663). The President, Margaret Beckett, said ‘’Certainly for the United Kingdom, climate change is a security issue, but it is not a matter of narrow national security. It has a new dimension. It is about our collective security in a fragile and increasingly interdependent world.’’[144] From this perspective, climate change cannot be tackled by the agency of unilateral states, thereby, the traditional understanding of security was challenged.

After this event, a UN General Assembly meeting was held, which recognized climate change as a ‘’threat multiplier’’. The UNGA Report in 2009 (A/64/350) is a comprehensive report on climate change and security implications. It is stated that climate change acts as a threat multiplier due to its effect in creating further insecurity due to its role in exacerbating pre-existing social, economic, and environmental threats, which can be a threat to the individual, communal, national, regional, and international

[142] ‘S/2007/186’, 2, accessed 29 October 2024, https://www.securitycouncilreport.org/atf/cf/%7B65BFCF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/CC%20S2007%20186.pdf.
[143] ‘S/2007/186’, 2.
[144] ‘S/PV.5663’, accessed 29 October 2024, https://documents.un.org/doc/undoc/pro/n07/309/08/pdf/n0730908.pdf.

level.[145] An important emphasis is on the conflict over resources by stating that ‘’changes in natural resource availability or access and the resultant competition and possible territorial disputes between countries. This may be because of worsening resource scarcities (e.g., shared waters) or the sudden expansion of shared or un-demarcated resources.’’[146] The second debate was held on 20 July 2011. It was stated (S/PRST/2011/15) ‘’The Security Council expresses its concern that possible adverse effects of climate change may, in the long run, aggravate certain existing threats to international peace and security.’’ The third debate was held on 11 July 2018 and stated that the Council was observing the adverse effects of climate change on the local and regional contexts, aiming to create a shared understanding of global climate-related risks, and recognizing climate change as a threat multiplier. The fourth debate was on 25 January 2019 on the impacts of climate-related disasters on international peace and security. It (S/PV.8451) talked about the importance of risk prevention and management.[147] Finally, the fifth debate was held on 24 January 2020. In the 2020 discussion it is stated that the Council recognizes the extent climate change adversely affects international peace and stability; however, does not affirm climate change as a security threat. While some states have explicitly addressed climate change as a threat to international peace and security, others have continued to perceive it in the framework of sustainable development.[148] Thus, the Council refused to consider a climate change resolution as a security risk, although accepting it in certain regions and United Nations missions.[149]

Recognizing the transboundary nature of climate change means that the insecurity it creates on the international scale. The threat of climate change is not a military one in essence; therefore, militarized strategies may fall useless. That is why international bodies like the UN are favoring preventative and cooperative actions. However, this

[145] ‘A/64/350’, accessed 28 October 2024, https://www.securitycouncilreport.org/atf/cf/%7B65BFCF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/sg%20report%202009.pdf.
[146] ‘A/64/350’.
[147] ‘S_pv_8451.Pdf’, accessed 28 November 2024, https://www.securitycouncilreport.org/atf/cf/%7B65BFCF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/s_pv_8451.pdf.
[148] ‘MAINTENANCE OF INTERNATIONAL PEACE AND SECURITY: CLIMATE AND SECURITY’, accessed 2 November 2024, https://climate-diplomacy.org/sites/default/files/2020-10/UNSC%20Summary_final.pdf.
[149] Louise van Schaik et al., ‘Fears for Militarisation of Climate Change: Should We Be Concerned?’ (Clingendael Institute, 2020), 3, https://www.jstor.org/stable/resrep29347.

definition falls short when it comes to national security. The prevailing academic consensus posits that climate change comes as a secondary element for conflict as alterations in climate will exacerbate water scarcity, food shortages, competition for natural resources, underdevelopment, and overpopulation, which could ultimately lead to conflict and straining civilian and military institutions.[150] If climate change is directly perceived as a security threat for nations, then fighting back against it would require stronger and more urgent responses. This would unusually point to military means. For example, the CNA report linked climate change to terrorism and further stated that climate change will negatively impact military capabilities; thus, it recommended that ‘’The national security consequences of climate change should be fully integrated into national security and national defense strategies.’’[151]

Another specific point could be made on the fact that the Security Council held meetings on the linkage between climate change, natural resources, and conflict prevention. In another meeting held on 25 June 2007, Mr. Von Ungern-Sternberg representing Germany asked ‘’An important question is: under what circumstances should a natural resource be considered a so-called conflict resource?’’(S/PRST/2007/22) highlighting the relation between climate change, resource scarcity, and conflict. Droughts, floods, and other extreme weather events caused by climate change lead to scarce resources, especially water, land, and agricultural land. This will likely intensify the existing conflicts or create new ones. Detraz and Betsill (2009 305) argue that considering the severity of resource scarcities on human well-being where diminished resources combined with other exacerbated factors can contribute to violent conflict; hence, this discourse makes a connection between traditional security concerns the environmental degradation.[152]

It can be argued that the general consensus is that climate change itself is not a direct security threat rather the interconnected effects of it are. However, the effects of climate change are increasing day by day. Therefore, it can be additionally argued that the

[150] Andrew Holland and Xander Vagg, ‘The Global Security Defense Index on Climate Change: Preliminary Results National Security Perspectives on Climate Change from Around the World’ (American Security Project, 2013), 2, https://www.jstor.org/stable/resrep06007.
[151] Gerson and Goodman, ‘National Security and the Threat of Climate Change’, 46.
[152] Nicole Detraz and Michele M. Betsill, ‘Climate Change and Environmental Security: For Whom the Discourse Shifts’, *International Studies Perspectives* 10, no. 3 (August 2009): 305, https://doi.org/10.1111/j.1528-3585.2009.00378.x.

intensification of resource scarcity is inescapable and can be a direct source of insecurity.

3.2. Water Resources and Climate Change

The impact of climate change on water resources is undeniable. According to the World Bank, Water is one way that climate change expresses itself.[153] The UN suggests that climate change is an existential threat to human welfare and human rights by jeopardizing water security not only for humans but also ecosystems worldwide.[154] As explained in the previous section, climate change creates changes in the hydrological cycle. This section aims to explain the climate crisis and the hydrological cycle in general. In this way, it will be easier to create a general pattern and understand local effects from the general picture. At the same time, it will be easier to analyze the history of water scarcity as a security threat.

3.2.1. Physical Effects of Climate Change on Water Resources

IPCC Technical Report in 2008 is an extensive research on the effects of climate change on water resources. It suggests that climate change influences the hydrological cycle and hydrological systems on ‘’changing precipitation patterns, intensity and extremes; widespread melting of snow and ice; increasing atmospheric water vapor; increasing evaporation; and changes in soil moisture and runoff’’.[155] Furthermore, climate change and the hydrological cycle are inextricably linked, as climate change has a significant impact on the hydrological cycle, which in turn contributes to climate change.[156] Water availability is determined by precipitation, temperature, and evaporative demand.[157] Thus, since the hydrological cycle and climate change are mutually reinforcing processes, water management can and does influence overall GHG emissions, as well as mitigation actions.[158]

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[153] ‘World Bank Overview’, Text/HTML, World Bank, accessed 12 November 2024, https://www.worldbank.org/en/topic/water/overview.
[154] UN Water, ed., *Water and Climate Change*, The United Nations World Water Development Report 2020 (Paris: UNESCO, 2020), 38.
[155] Jean P. Palutikof, Shao-hong Wu, and IPCC, eds., *Climate Change and Water*, IPCC Technical Paper 6 (Geneva: IPCC Secretariat, 2008), 15.
[156] Palutikof, Wu, and IPCC, 23–24.
[157] Palutikof, Wu, and IPCC, 38.
[158] Palutikof, Wu, and IPCC, 122.

According to the UN,[159] climate change is expected to affect water resources increasingly scarce, unpredictable, and polluted. Due to the reduced snowpack and melting glaciers, the sea levels are expected to rise.[160] According to the Copernicus Climate Change Service, since 1993, the global mean sea level has risen at an average rate of 3.4 mm per year, for a total increase of 10.3 cm during the preceding 30 years; moreover, ocean thermal expansion accounts for about 30% of global mean sea level rise, with glaciers and polar ice sheets contributing the remainder.[161] This will intensify water scarcity due to the saltwater intrusion into coastal aquifers and depleted mountain water reserves, which diminishes freshwater availability.[162] Additionally, the rise in extreme weather events poses further risks to water resources. Due to the increased temperature, there will be higher evaporation, which can cause more severe and intense floods due to increased rainfall.[163] This means that there may be more unpredictable weather due to wetter wet areas, drier dry areas, and intensified storms.[164] As water will likely become more scarce, it will lead to increased droughts. The World Bank claims that ‘’Nine out of ten natural disasters are water-related.’’[165] Moreover, increased temperatures resulting from global warming can exacerbate water pollution through the proliferation of harmful algae and bacteria, jeopardizing human health and marine ecosystems[166].

3.2.2. The Widespread Effects on Water Scarcity

The UN-Water Report, Water and Climate Change suggests that climate change will cause an extra 10% reduction in freshwater availability for 685 million people by 2050.[167] The existing water-stressed regions of the Middle East and North Africa, Central Asia, and Central America show a steady pattern of decreasing runoff, which

[159] ‘Snapshot’, accessed 12 November 2024, https://www.unwater.org/water-facts/water-and-climate-change.
[160] ‘Snapshot’.
[161] ‘Copernicus’, accessed 14 November 2024, https://climate.copernicus.eu/.
[162] ‘6 - Climate Change and Water Resources’, WAREG - European Water Regulators, 6 September 2023, https://www.wareg.org/articles/6-climate-change-and-water-resources/.
[163] ‘Snapshot’.
[164] ‘Research Topics | NASA Global Precipitation Measurement Mission’, accessed 12 November 2024, https://gpm.nasa.gov/science/research-topics#theglobalwatercycle.
[165] ‘Snapshot’, accessed 12 November 2024, https://www.worldbank.org/en/topic/water/overview.
[166] ‘6 - Climate Change and Water Resources’.
[167] UN Water, *Water and Climate Change*, 20.

will worsen water shortages.[168] The areas affected by water scarcity are vast. IPCC Report (2022), suggests that hydrological changes have a sectoral impact, meaning that alterations in water availability have implications for economic, political, and social sectors.[169] Water scarcity leads to water insecurity due to its negative effect on human health, agriculture, energy, economic development, and ecosystem health.

According to the World Bank, approximately 1.6 billion individuals face physical water scarcity today, a figure that may quadruple in the coming decades.[170] Furthermore, it is estimated that 2 billion people do not have safe drinking water, 3.6 billion do not have decent sanitation, and 2.3 billion do not have access to basic handwashing facilities around the globe.[171] The agriculture sector is the largest anthropogenic water user, utilizing more than 70% of available freshwater.[172] Water scarcity inhibits agricultural production and irrigation, reducing the yield of crops. Especially, droughts contribute to food insecurity; accordingly, ‘’climate-induced hazards such as floods and droughts negatively impact agricultural production’’.[173] Water security deeply affects energy security as well. Many organizations such as the UN or the EU have studies on the water-energy nexus as extreme weather events and rising water temperatures are expected to hinder hydro and thermal generation around the world.[174] In addition to climate-related dangers, there are ones that are manufactured. Rapid population increase, urbanization, declining infrastructure, and changes in water demand all contribute to ‘’urban and peri-urban water insecurity’’.[175] Moreover, with the degradation of freshwater ecosystems caused by water scarcity, many freshwater-dependent populations are likely to become extinct.[176]

3.3. Water Insecurity in International Discourse

[168] ‘High and Dry: Climate Change, Water, and the Economy’, 3, accessed 12 November 2024, https://documents1.worldbank.org/curated/zh/862571468196731247/pdf/105130-REVISED-K8517.pdf.
[169] Intergovernmental Panel On Climate Change (Ipcc), *Climate Change 2022 – Impacts, Adaptation and Vulnerability: Working Group II Contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*, 1st ed. (Cambridge University Press, 2023), https://doi.org/10.1017/9781009325844.
[170] ‘High and Dry: Climate Change, Water, and the Economy’, 1.
[171] ‘Snapshot’.
[172] ‘High and Dry: Climate Change, Water, and the Economy’, 24.
[173] Intergovernmental Panel On Climate Change (Ipcc), *Climate Change 2022 – Impacts, Adaptation and Vulnerability*, 585.
[174] Intergovernmental Panel On Climate Change (Ipcc), 586.
[175] Intergovernmental Panel On Climate Change (Ipcc), 587.
[176] Intergovernmental Panel On Climate Change (Ipcc), 593.

The International Conference on Water and the Environment in 1992, Dublin Convention, talked about the scarcity and misuse of fresh water as a threat to sustainable development and environmental protection. It suggested that with growing climate change, international watersheds will be of great importance; thus the necessary initiatives should be taken for effective management and ‘’endorsed by all affected governments and backed by international agreements.”[177]

In the same year, 1992, the Rio Summit was held. As mentioned, one of the important consequences of it was the adoption of Agenda 21, which is a comprehensive plan aimed at sustainable development. *Chapter 18: Protection Of The Quality And Supply Of Fresh Water Resources: Application Integrated Approaches To The Development, Management And Use Of Water Resources*, is about the protection of the quality and supply of freshwater resources, as the title suggests.[178]

Another crucial agreement is the Convention on the Law of the Non-navigational Uses of International Watercourses, which was adopted by the UNGA on 21 May 1997 and entered into force on 17 August 2014, inter alia with 1992 Rio and Agenda 21. As the title suggests, it lays out the general principles and rules that are to be followed in using water sources in non-navigational ways. Non-navigational refers to areas apart from transportation and shipping. It emphasizes collaboration for the maximum sustainable utilization and management of water sources, and protection of water sources. It is important for describing important themes for transboundary water management as it encourages the use of their water resources in an equitable, reasonable, and sustainable manner according to Article 5. It additionally prohibits the cause of damage by one state to another during the utilization of a transboundary water source; Art. 7 states ‘’Watercourse States shall, in utilizing an international watercourse in their territories, take all appropriate measures to prevent the causing of significant harm to other watercourses States.’’; Art. 27 states ‘’Watercourse States shall, individually and, where appropriate, jointly, take all appropriate measures to prevent or mitigate conditions related to an international watercourse that may be harmful to other watercourse States, whether resulting from natural causes or human conduct, such as flood or ice

[177] ‘IELRC.ORG - The Dublin Statement on Water and Sustainable Development, 1992’, n.d.
[178] ‘Agenda21.Pdf’, accessed 28 November 2024, https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf.

conditions, water-borne diseases, siltation, erosion, salt-water intrusion, drought or desertification.''[179] This Convention further suggests that water management should be done not by zero-sum thinking, but with collaboration and consent. Thus, it indirectly relates water security to national security.

With the onset of the millennia, the Millennium Development Goals (MDGs) were established in 2000. Goal 7 of the total of 8 goals of MDGs is ''Ensure Environmental Sustainability'', in its scope, it envisages the proportion of the global population without access to clean and safe drinking water and basic sanitation to be reduced by half by 2015.[180] MDGs were a success. In 2015, 91% of the world's population used improved drinking water, increasing from 76% in 1990, and 2.1 billion people gained access to improved sanitation; additionally, 147 countries met the drinking water target, 95 met the sanitation target, and 77 met both worldwide.[181] In 2015, the Sustainable Development Goals (SDGs) were shaped after MDGs and eventually superseded them. The interconnected 17 targets of SDGs relating to development in terms of economy, environment, and health are meant to be achieved by all 193 members of the UN. The development of post-2015 goals resulted from the Rio+20 summit in 2012, and the SDGs coincided with the Paris Climate Conference, which demonstrated the relationship between the established targets and the effects of climate change.[182] The targets can be met by mitigating climate change. It is also observed that the negative consequences of climate change function as a ''threat multiplier'' for the aimed targets. Goal 6 of SDGs is *''Ensure availability and sustainable management of water and sanitation for all''*.[183] Consequently, access to clean water was established as an independent objective rather than being encompassed within a broader goal of environmental protection and sustainability. Based on the Sustainable Development Report 2020, ''Water is essential not only to health but also to poverty reduction, food

[179] 'Convention on the Law of the Non-Navigational Uses of International Watercourses. New York, 21 May 1997', accessed 7 November 2024, https://treaties.un.org/doc/Treaties/1998/09/19980925%2006-30%20PM/Ch_XXVII_12p.pdf.
[180] 'MDG 7: Ensure Environmental Sustainability | Millennium Development', *Millennium Development Goals* (blog), 15 November 2016, https://www.mdgmonitor.org/mdg-7-ensure-environmental-sustainability/.
[181] 'MDG 2015 Rev (July 1).Pdf', 7, accessed 8 November 2024, https://www.un.org/millenniumgoals/2015_MDG_Report/pdf/MDG%202015%20rev%20(July%201).pdf.
[182] 'Background on the Goals', UNDP, accessed 8 November 2024, https://www.undp.org/sdg-accelerator/background-goals.
[183] 'The-Sustainable-Development-Goals-Report-2020.Pdf', accessed 8 November 2024, https://unstats.un.org/sdgs/report/2020/The-Sustainable-Development-Goals-Report-2020.pdf.

security, peace and human rights, ecosystems and education. Nevertheless, countries face growing challenges linked to water scarcity, water pollution, degraded water-related ecosystems, and cooperation over transboundary water basins. In addition, funding gaps and weak government systems hold many countries back from making needed advancements. Unless current rates of progress increase substantially, Goal 6 targets will not be met by 2030.''[184] Accordingly, access to clean water is related to other targets aimed at reducing poverty, ensuring peace, and protecting human rights.

A crucial moment for the UN was the official recognition of access to clean drinking water and sanitation as a human right on 28 July 2010. The UNGA Res. 64/292 stated that it 'Recognizes the right to safe and clean drinking water and sanitation as a human right that is essential for the full enjoyment of life and all human rights;'.[185] This is binding under international law. Additionally, the right to sanitation was recognized as a distinct right by the UN Res. 70/169 on 17 December 2015.[186]

For the achievement of sustainable development and overall human security, UN-Water called for an official definition of water security; accordingly, water security is to be defined as 'The capacity of a population to safeguard sustainable access to adequate quantities of and acceptable quality water for sustaining livelihoods, human well-being, and socioeconomic development, for ensuring protection against water-borne pollution and water-related disasters, and for preserving ecosystems in a climate of peace and political stability.'[187]

In light of these official documents, access to clean water, protection of freshwater resources, and effective and cooperative water management in shared water basins have been growingly accepted as a security issue in the post-Cold War era. Moreover, with the growing concerns of environmental degradation and climate change, water resources and the lack of water availability gained prominence. Similar to climate change, water scarcity or water sources that were affected by climate change were more of a danger to sustainable development and human rights. Most of these documents give policy

[184] 'The-Sustainable-Development-Goals-Report-2020.Pdf'.
[185] 'A/RES/64/292', accessed 8 November 2024, https://documents.un.org/doc/undoc/gen/n09/479/35/pdf/n0947935.pdf.
[186] 'A/RES/70/169', accessed 8 November 2024, https://documents.un.org/doc/undoc/gen/n15/442/72/pdf/n1544272.pdf.
[187] 'Water | United Nations', accessed 28 November 2024, https://www.un.org/en/global-issues/water.

suggestions for better and more effective management. They show an indirect link regarding security; thus, does not necessarily give highlights on national security.

3.3.1. Water as a Security Threat

Water has been essential for all life on the planet without a doubt. However, the distinction between water being a political issue and a security issue is the focus on this part. As mentioned, during the Cold War non-renewable resources were instruments for the players in the international arena. The general debate on environmental concerns and its relation with the overall well-being of humans, and the security of the both state and the individual paved the way for understanding of scarcity of resources as a cause of *insecurity*.

The report of the World Economic Forum (2014) identified several *global risks.* Accordingly, a global risk is ‘’an occurrence that causes significant negative impact for several countries and industries’’ that occurs over a period as much as 10 years.[188] A water crisis is characterized as an alarming decrease in both the amount and quality of fresh water, resulting in competition amidst ‘’resource-intensive systems’’.[189] Water crises are listed third, even ahead of the possibility of climate change mitigation measures failing[190], and water insecurity is described as a ‘’systemic global risk’’ despite the fact that the effects are mainly local.[191]

In this vein, water has always been a consideration for its potential to be a driver in local or regional conflicts due to competition over resources. According to the World Bank, the centrality of clean water and sanitation to human well-being is also central to national development by extension.[192] Water security is inherently linked to conflict[193] for riparian countries or countries in the developing regions. Because it is stated ‘’...for

[188] ‘WEF_GlobalRisks_Report_2014.Pdf’, 12, accessed 2 November 2024, https://www3.weforum.org/docs/WEF_GlobalRisks_Report_2014.pdf.
[189] ‘WEF_GlobalRisks_Report_2014.Pdf’, 53.
[190] ‘WEF_GlobalRisks_Report_2014.Pdf’, 9.
[191] ‘WEF_GlobalRisks_Report_2014.Pdf’, 15.
[192] ‘Implementing-the-Water-Resources-Mandate-of-Agenda-21-the-Promise-and-the-Challenges-for-OECD-Countries.Pdf’, 1, accessed 7 November 2024, https://documents1.worldbank.org/curated/en/679891468763833869/pdf/Implementing-the-water-resources-mandate-of-Agenda-21-the-promise-and-the-challenges-for-OECD-countries.pdf.
[193] ‘Implementing-the-Water-Resources-Mandate-of-Agenda-21-the-Promise-and-the-Challenges-for-OECD-Countries.Pdf’, 3.

every positive achievement in international or regional or bilateral cooperation, there has been an underlying potential for conflict.''[194] This implies that even in cases of cooperation in water management there is a risk for tensions rising due to disagreements, competition, or unresolved issues that could lead to disputes and could be a concern for national security. Thus, the effect of water scarcity on national security has often been presented as an issue over resource competition.

In 2008, Secretary General Ban Ki-Moon said ''Our experiences tell us that environmental stress, due to lack of water, may lead to conflict, and would be greater in poor nations''[195] This could be interpreted as the concern about possible intrastate conflicts due to water scarcity and certain groups maintaining the water capitalization. This would undoubtedly hinder national security due to local hostilities. Parthemore and Rogers (2010 9) talk about the relationship between resource scarcity and intrastate conflicts, specifically in developing countries; consequently, as natural resources deplete, intrastate conflicts may become more obvious due to their impact on ''poverty, migration, resource competition, and weak social institutions.''[196] An example in the Eastern Mediterranean can be given of the Syrian Civil War. Namely, Droughts exacerbated water shortages, resulting in the displacement of huge population from rural to urban areas, food insecurity, and increasing unemployment, all of which had an impact on political instability.[197]

3.3.2. Water Scarcity and National Security

Historically, access to water has always been an element of instability and conflict. The earliest known war on water was the Lagash-Umma dispute in 2500 BC.[198] There is no guarantee of the availability of water resources, not in the past, not today, and not in the future. A clear example of this can be the concept of ''water wars''. Therefore, the

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'Implementing-the-Water-Resources-Mandate-of-Agenda-21-the-Promise-and-the-Challenges-for-OECD-Countries.Pdf', 14.

195 'At World Economic Forum, Ban Ki-Moon Pledges Action on Water Resources | UN News', 24 January 2008, https://news.un.org/en/story/2008/01/246802.

196 Christine Parthemore and Will Rogers, 'Sustaining Security: How Natural Resources Influence National Security' (Center for a New American Security, 2010), 9, https://www.jstor.org/stable/resrep06384.

197 Peter H. Gleick, 'Water, Drought, Climate Change, and Conflict in Syria', *Weather, Climate, and Society* 6, no. 3 (1 July 2014): 331, https://doi.org/10.1175/WCAS-D-13-00059.1.

198 'Water Conflict Chronology', accessed 17 November 2024, https://www.worldwater.org/conflict/map/.

phenomenon of water wars is not new, but rather one with significant historical precedence. In recent decades, this issue of potential conflicts gained scope since almost 40% of the population lives in water-stressed regions around the world. The debate on resource competition is of high importance in light of climate change. As water gets significantly scarce, it would eventually lead to disputes between the nations causing further regional tensions. Because in the dry regions of the world that already suffers water scarcity, it is seen that climate change acts not only as a ‘’threat multiplier’’ but also as an *accelerator*. Water scarcity is an indicator of countries' vulnerability to climate change.[199] It is seen that in the international discourse, the competition over resources has been addressed in the framework of potential intrastate disputes in fragile states or a threat to global security. However, the future of transboundary resources can definitely be a national security consideration.

In the traditional sense, national security is linked with military security. Yet, it is seen that new dimensions of security, the non-traditional ones, can be analyzed within national security. Without a doubt, border security, political, and economic security are of utmost importance. On the other hand, ‘’insecurity’’ is a nation's perceived threat.[200] Thus, what is seen is the *construction* of the threat. Eventually, the constructed narrative would be expected to justify the military or policy responses to the perceived threats. Even though the threat can be explained objectively, there is always a subjective implication to it. For example, for an environmental hazard to be categorised as an issue of security, it must have a negative impact on any national interests.[201] Baldwin (1995 128) makes a distinction between traditional and non-traditional threats by stating ‘’A state without armed forces to protect it from external attack may not survive, but a state without breathable air or drinkable water will surely not survive.’’[202] This statement implies that the absence of resources such as water is even a greater threat to a state’s survival, as it is essentially an existential type of danger, than an external military attack. Thus, a resource as vital as water is surely a consideration of national security.

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[199] Michael Klare, ‘Climate Change, Water Scarcity, and the Potential for Interstate Conflict in South Asia’, *Journal of Strategic Security* 13, no. 4 (December 2020): 111–12, https://doi.org/10.5038/1944-0472.13.4.1826.
[200] Nazli Choucri, ‘Resource Scarcity and National Security in the Middle East’, n.d., 101.
[201] Marc A. Levy, ‘Is the Environment a National Security Issue?’, *International Security* 20, no. 2 (1995): 43, https://doi.org/10.2307/2539228.
[202] David A. Baldwin, ‘Security Studies and the End of the Cold War’, ed. Graham Allison et al., *World Politics* 48, no. 1 (1995): 128.

The above-mentioned examples of widespread effects of water scarcity are a great example of this. Zeiton (2011 290) uses the term ‘’the *web* of water security’’ to refer to the different security areas that are impacted by national water security.[203] This notion emphasizes the importance of natural resources such as water, energy, and food in ensuring security- and suggests that food and energy security is linked to water security- as well as the security demands of various social groups, asserting ‘’individual’s water security may coexist with national water insecurity’’.[204] What is being discussed here is injustice based on access to water in a country. The author is talking about the distinction between the elites and the marginalized groups in the country. He is talking about how one group may experience water security and another group may experience water insecurity within the same country's borders. Thus, there is an intrastate approach again.

Overall, the water-food-energy link has been discussed often in the literature. The UN refers to water as a ‘’connector’’.[205] Subsequently, water insecurity has a spill-over effect. It is critical to emphasize that water policies do not focus solely on the management of water resources, but also consider other sectors such as food, energy, and climate. Thus, water scarcity can affect national security in various ways regarding food security, economic security, energy security, public health crises, and ecological deprivation. A state can be considered for its citizens’ well-being due to the adverse health effects water scarcity causes related to access to water and sanitation. By the same token, ecological health could be a point of consideration as well. For countries that are dependent on agriculture, water scarcity is expected to have detrimental effects, which is not only bad for people but have additional economic effects.[206] The water-energy link is another factor as the purification, transportation, and distribution of water all require energy. Water resources have a significant impact on energy production, and increasing energy efficiency positively affects renewable energy sources like water. Again, this has economic reflections as well. Thus, water scarcity deeply affects a state’s development in every way possible.

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[203] Mark Zeitoun, ‘The Global Web of National Water Security’, *Global Policy* 2, no. 3 (1 October 2011): 290, https://doi.org/10.1111/j.1758-5899.2011.00097.x.
[204] Zeitoun, 290.
[205] UN Water, *Water and Climate Change*, 44.
[206] ‘WATER WARS-JOYCE STARR’, accessed 18 November 2024, https://dlc.dlib.indiana.edu/dlcrest/api/core/bitstreams/72467a29-2d0c-45e5-852e-cfb8adbea1a4/content.

The direct or traditional ways water scarcity over national security can be analyzed within a broader framework related to a state's sovereignty, political security related to state legitimacy due to intrastate disputes, the adverse effects on military tools, and obviously interstate disputes turning into armed conflicts due to competition over resources. If any resource scarcity is perceived as the decreasing of a valued asset, that is an asset that has value to people, societies, to the economy, then its connection to national security is more apparent.[207]

3.3.3. Water Wars and Water as a Tool of War

There are clashing views over the ''water wars'' concept. From one perspective, water is such an important part of every element of human life and because it is recognized that water-related issues have the capacity to spark conflict, war over water resources in the face of water scarcity is a possibility. On the other hand, water-related disputes might trigger diplomatic disputes and not transform into armed conflict.

In 1995, the vice-president of the World Bank, Ismail Serageldin claimed ''If the wars of this century were fought over oil, the wars of the next century will be fought over water.''[208] This statement compares two resources that are essential in their own way. While oil is expected to fuel tensions, water is often ignored. In an interview with Serageldin in 2009, he again claimed that water will be as essential as oil by underlining climate change in the limited water access, especially in arid and semi-arid regions, where water-related conflicts are already visible.[209] He pointed out that there are no international laws developed or ratified for international water management, specifically on ''underground aquifers that cross borders'', which makes the situation even more fragile.[210] Thus, the development and protection of water resources went beyond being merely an environmental concern and shifted into a national strategy for being a source of conflict.

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[207] Choucri, 'Resource Scarcity and National Security in the Middle East', 106.
[208] 'Water, War, and Diplomacy in Human History | Ohio State Sustainability Institute', accessed 18 November 2024, https://si.osu.edu/events/water-war-and-diplomacy-human-history.
[209] Ismail Serageldin, 'Water Wars? A Talk with Ismail Serageldin', *World Policy Journal* 26, no. 4 (2009): 25–31.
[210] Serageldin.

A key question by Starr (1991 19) is that in today's Middle Eastern landscape, it is already seen that one natural resource, which is oil being taken into account when analyzing interstate relations due to the competition surrounding oil reserves; will water conflicts over access to aquifers be a recurrent theme as well?[211] She adds that water security will inevitably rank with military security.[212] This statement is bold as it suggests that access to water will become critical for national stability and sovereignty almost as critical as maintaining military strength.

According to Dinar (2002 233), the parts of environmental degradation that are a realistic security consideration should be clarified since not all threats to life and property are threats to security.[213] Dinar suggests that the water-security link is much more real due to its high likelihood of armed conflict, water scarcity or the mismanagement of it can override stability, and the appropriate policy responses may be diminished due to the justification of military means.[214] While environmental-related security has been framed as a non-traditional dimension of security, water scarcity-related chaos scenarios made the water problem a high-politics issue.[215] Water can be a major cause of friction between states, exacerbating already strained relations.[216] Dinar states (2002 237) ‘’...water takes on an independent value vis-à-vis security’’[217], meaning that water is a standalone factor in national security dynamics.

The relationship between environmental scarcity and violent conflict is studied in the profound research of Homer-Dixon: accordingly, there could be three kinds of possible conflicts when resources degrade:

1. Resource wars reflecting simple-scarcity conflicts,
2. Resource wars rooted in group identity lines,

[211] Joyce R. Starr, ‘Water Wars’, *Foreign Policy*, no. 82 (1991): 19.
[212] Starr, 19.
[213] Shlomi Dinar, ‘Water, Security, Conflict, and Cooperation’, *SAIS Review* 22, no. 2 (June 2002): 233, https://doi.org/10.1353/sais.2002.0030.
[214] Dinar, 233.
[215] Ashok Swain, ‘Water Wars: Fact or Fiction?’, *Futures* 33, no. 8–9 (October 2001): 770, https://doi.org/10.1016/S0016-3287(01)00018-0.
[216] Dinar, ‘Water, Security, Conflict, and Cooperation’, 237.
[217] Dinar, 237.

3. Resource wars that disrupt social institutions.[218]

Based on the findings, it is stated that there is not enough empirical evidence to support the first kind of resource conflicts; moreover, it is noted that scarcity could be a partial motivation.[219] Nevertheless, it is acknowledged that ‘’the renewable resource most likely to stimulate interstate resource war is river water.’’[220] The rationale behind this is the fact that the flow of rivers from one country to another means that one country's actions ultimately affect the other.[221]

The phenomenon deserves extra attention considering transboundary water resources. The UN suggests that with increased water stress, there is a risk for increased social unrest[222] States that rely on transboundary rivers or shared aquifers have to alter their national security objectives to ensure water supply.[223] Swain (2001 770) suggests that water scarcity can trigger conflicts due to disputes over the ‘’quality, quantity, and control’’ of water resources, which ultimately leads to water wars.’’[224] The combination of regional instability and extreme shortages of water may result in the use of force among states in conflict over shared water resources.[225] For example, Anwar Sadat, in 1979 after the peace treaty with Israel in 1979, stated that Egypt would only go to war again if prompted by the water issue.[226]

Additionally, water is being used as a weapon of war. This phenomenon is more of a reality. Water resources might be intentionally targeted, in which water scarcity turns into a military strategy.[227] States can use or target water resources during a military operation in interstate conflicts. From an alternative point of view, the role of extremist groups in doing this is recognized. For example, three ways of it: strategic, that is to control areas or infrastructure or for governing; tactical, where water is used for

[218] Thomas F. Homer-Dixon, ‘Environmental Scarcities and Violent Conflict: Evidence from Cases’, *International Security* 19, no. 1 (1994): 6–7, https://doi.org/10.2307/2539147.
[219] Homer-Dixon, 18.
[220] Homer-Dixon, 30.
[221] Homer-Dixon, 30.
[222] United Nations, ‘Five Ways the Climate Crisis Impacts Human Security’, United Nations (United Nations), accessed 8 November 2024, https://www.un.org/en/climatechange/science/climate-issues/human-security.
[223] Swain, ‘Water Wars’, October 2001, 770.
[224] Ashok Swain, ‘Water Wars’, in *International Encyclopedia of the Social & Behavioral Sciences* (Elsevier, 2015), 443, https://doi.org/10.1016/B978-0-08-097086-8.91087-0.
[225] Swain, ‘Water Wars’, October 2001, 770.
[226] Dinar, ‘Water, Security, Conflict, and Cooperation’, 229; Starr, ‘Water Wars’, 19.
[227] Swain, ‘Water Wars’, 2015, 443.

localized military operations; coercive, where water is leveraged for subjugation.[228] For example, the Islamic State (IS) brought significant attention to the weaponization of water by systematically using it in Syria's conflict, where various factions targeted water infrastructure or leveraged water access to achieve political and military objectives.[229]

Water scarcity serves an important role in conflicts, as it can heighten tensions in conventional and unconventional circumstances. There could be disagreements regarding the access and control of water resources, which could turn into potential armed conflicts in the case of transboundary water resources. This notion can be heightened with increased water scarcity. In addition, water can be a tactical weapon. It can also be said that terrorists might harm the resources of states such as attacking water reservoirs or contaminating water resources.

According to the Water Conflict Chronology, there were 849 water-related conflicts around the globe from 2000 to 2019.[230] The majority of the conflicts occurred in the Global South and the developing countries in general, with three common causes: casualty, weapon, and trigger. These terms are defined as:

1. Causality: Water resources are intentionally/unintentionally targets of violence,
2. Weapon: Water is used as a weapon in violent conflicts,
3. Trigger: Water is the direct source of conflict where access to water and water scarcity are potential triggers.[231]

Furthermore, while the majority of water wars are committed by militia groups or individual attacks, bilateral state disputes over water are often reported as well. Conversely, the concept of water wars has been met with skepticism in the literature as well. Water wars are yet to become an actual reality. Most studies show that potential conflicts can be mitigated by strong institutions and adherence to law. They claim that throughout all of human history, no two countries have ever gone to war over water; instead, most countries today strive to improve their water management strategies to

[228] Marcus D King and Julia Burnell, 'The Weaponization of Water in a Changing Climate', June 2017, 68.
[229] Tobias von Lossow, 'The Role of Water in the Syrian and Iraqi Civil Wars', Clingendael, 5 March 2020, https://www.clingendael.org/publication/role-water-syrian-and-iraqi-civil-wars.
[230] 'Water Conflict Chronology'.
[231] 'Water Conflict Chronology'.

overcome restricted water resources.[232] For example, ‘’If ever there is a war between two countries, it will never be because of water.’’[233] This perspective as cited in Biswas and Totrajada (2019 729), signifies that water-related tensions would not be caused by water directly; but rather, water would play an additional role. This perspective challenges the narrative of inevitable water wars. This point will be discussed more in the last chapter when discussing the opportunities for Israel in the water scenery.

3.4. Conclusion

After the Cold War, the perceptions of security began to change. While the difference between traditional and non-traditional security threats show the new threats that occurred with the rise of multipolarism or globalisation, environmental-related concerns arise in parallel. In this vein, climate change plays an exacerbating role in the wider water scarcity and security debate. The surrounding threats against national security changed in this regard. Water scarcity led to the discussions of *water wars* and *weaponization of water* due to the concerns on resource competition in interstate relations. The debates on resource competition become a consideration for national security. While there are contrasting views on the possibility of water wars, the weaponization of water is more of a reality.

[232] Asit K. Biswas and Cecilia Tortajada, ‘Water Crisis and Water Wars: Myths and Realities’, *International Journal of Water Resources Development* 35, no. 5 (3 September 2019): 729, https://doi.org/10.1080/07900627.2019.1636502.
[233] Biswas and Tortajada, 729.

Chapter 3: Security and Securitization of Water In Israel

The post-Cold War period resulted in major shifts in global politics, which were visible in every corner of the world. The Middle East and the Eastern Mediterranean, in particular, were affected by the elimination of the bipolar world order. The region witnessed the rise to new tensions and challenges. Therefore, the Israeli political culture and understanding of security were shaped by this environment. This chapter aims to explore the relationship between security and water scarcity in Israel via the foundation and evolution of national security ethos. The foundation of the conceptual framework is the Copenhagen School's Securitization Theory to explain how water scarcity, and water in general, is securitized in Israel. In order to provide a theoretical and practical explanation, the theory is further explained with the Zionist ideology and contemporary Israeli security practices. Finally, the chapter additionally identifies the limitation to the theory itself, showing the unique case of Israel.

4.1. National Security in Israel

In order to understand a specific component of security, the general approaches to national security should be explained. In this way, it is possible to observe the role water scarcity plays for national security.

4.1.1. Traditional National Security of Israel

The national security doctrine of a country aims to promote that nation's interests against the targeted security challenges. As a country that is situated in a region that is characterized by persistent tensions and disputes that often turn into armed conflicts and full-scale wars, Israel has numerous subjects in its national security agenda. The formation and the development of a security agenda; however, are subject to a country's perception of a threat. This part aims to explain the evolution of the national security ethos in Israel by first explaining the traditional security doctrine and second the manifestation of it between 1990-2020.

Israeli national security doctrine was shaped in the formation years of the State of Israel. It can be said that this doctrine remained relevant ever since, dominating both the security and political domains of the country. What constitutes the components of

national security should be discussed briefly before all else. In Rodman's (2001 72) words: ''A state's national security doctrine, in its broadest sense, encompasses the totality of those military, diplomatic, economic, and social policies that are explicitly intended to protect and promote the state's national security interests.''[234] Henceforth, a country's national security doctrine consists of every measure it decides to take to counter any threats it may face, including nonmilitary actions.[235]

The traditional security thinking in Israel is based on the conceptualization of the former Israeli Prime Minister David Ben-Gurion in the 1950s. However, the important point to underline is the fact that Israel does not have a written and coherent national security doctrine. In fact, he is the source of the only officially recognized national security document of the country.[236]

In the first place, Ben-Gurion was deeply influenced by Ze'ev Jabotinsky, the author of The *Iron Wall*. The document is basically the core of Zionism, suggesting that Israel could only be established and rise through the iron wall that separates the Arabs from the Jews. Jabotinsky said that,

> As long as the Arabs feel that there is the least hope of getting rid of us, they will refuse to give up this hope in return for either kind words or for bread and butter, because they are not a rabble, but a living people. And when a living person yields in matters of such a vital character it is only when there is no longer any hope of getting rid of us, because they can make no breach in the iron wall.

Specifically, this part suggests that for the Arab *foes*, in the presence of Israel, the resistance is one of identity and survival. Thus, it implies a policy of discouragement and intimidation to make the enemies of Israel simply *accept.* In this vein, it is necessary to create an asymmetric power dynamic which is to the advantage of the Israeli side that would lead to the eventual acceptance and recognition.

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[234] David Rodman, 'ISRAEL'S NATIONAL SECURITY DOCTRINE: AN INTRODUCTORY OVERVIEW', *Middle East Review of International Affairs* 5, no. 3 (2001): 72.
[235] Yoram Fried, 'Military, Civilian, or Both: David Ben-Gurion's Perception of National Security After the War of Independence', *Contemporary Review of the Middle East* 7, no. 2 (June 2020): 127, https://doi.org/10.1177/2347798920901866.
[236] Jacob Nagel and Jonathan Schanzer, 'From Ben-Gurion to Netanyahu: The Evolution of Israel's National Security Strategy', n.d., 1.

On top of that, another important historical point is the fact that the Palestinian Arabs, with the help of other Arab populations, repeatedly attacked the pre-state Israel or the Yishuv.[237] Therefore, the attacks were constant and expected. Additionally, there was the awareness that the surrounding neighbors could invade the State of Israel following its foundation. There was the perception that the newly founded state of Israel was under attack by ‘’a coalition of Arab states and armies that would seek Israel's physical destruction,’’ which was more than anything an existential threat, and made the Iron Wall at the very core of Israel's security philosophy.[238] Ben-Gurion’s security rationale was aligned with the policy of the Iron Wall proposed by Jabotinsky. Although they ultimately differed in political views, the Arab Question and Israeli-Arab relations were perceived in a similar fashion. Shailim explains that the policy of Iron Wall has been linear through the pre-state times to modern times.[239] He further states that ‘’Jabotinsky was the first formulator of the strategy of the iron wall; Ben-Gurion, because he was not just a socialist but a practitioner of realpolitik, gave it top priority as of the mid-1930s.’’[240]

In this regard for Ben-Gurion, the early years showed the need for the prioritization of defence and security.[241] It can be argued that this existential threat comes from the fear of extermination related to the history of Jews. In the 20th century, this fear was without a doubt shaped because of the Holocaust. Thus, it appears that there is a perpetual state of anxiety related to Jewish history, which adds up to the ‘’chronic insecurity’’.[242] Although it did not take place in the Eastern Mediterranean nor did it happen due to Israel’s neighboring enemies, any type of attack by them triggered this fear of being subject to an extermination once again. As Horowitz (1983 11) suggests, Israeli national security doctrine presupposes that Israel is in a fight for its ‘’survival’’.[243] Moreover,

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[237] Ian Lustick, ‘To Build and to Be Built By: Israel and the Hidden Logic of the Iron Wall’, *Israel Studies* 1, no. 1 (1996): 5.
[238] Reut Institute, ‘Israel’s Security and Foreign Policy Doctrine: Let the Army “Win”’, Building a Political Firewall Against Israel’s Delegitimization (Reut Institute, 2010), 27, https://www.jstor.org/stable/resrep10571.9.
[239] Avi Shlaim, ‘The Iron Wall Revisited’, *Journal of Palestine Studies* 41, no. 2 (1 January 2012): 81, https://doi.org/10.1525/jps.2012.XLI.2.80.
[240] Shlaim, 84.
[241] Reut Institute, ‘Israel’s Security and Foreign Policy Doctrine’, 27.
[242] Dowty, ‘Israeli Foreign Policy and the Jewish Question’, 2–4.
[243] Dan Horowitz, ‘The Israeli Concept of National Security’, in *The Middle East*, ed. Talal Asad and Roger Owen (London: Macmillan Education UK, 1983), 11, https://doi.org/10.1007/978-1-349-17282-5_4.

another crucial point is related to Israel's isolation in the region. Israel has been an alien in the Eastern Mediterranean, a reminder of colonialism, which necessitated the quest for legitimacy. Without legitimacy, Israel was doomed to collapse. That being so, the alienation of Israel promoted the sensation of ‘’us vs them’’, which advanced the existential fears.

In this context, Ben-Gurion considered certain geopolitical realities for Israel that helped shape the security ethos. These were: the lack of strategic depth, being surrounded by enemy states, having less manpower than adversaries, and being smaller -territory-wise. For example, On 12 January 1949, after the War of Independence was concluded, Ben-Gurion addressed the nation and made this statement that proved these geopolitical considerations:

> Let us not be intoxicated with victory. To many people and not only among ourselves, it would appear to be a miracle: a small nation of 700,000 persons (at the outset of the campaign there were only 640,000) stood up against six nations numbering 30 million. However, none of us knows whether the trial by bloodshed has yet ended. The enemy forces in the neighboring countries and the world at large have not yet despaired of their scheme to annihilate Israel in its land or at least to pare away its borders, and we do not yet know whether the recent war, which we fought in the Negev and which ended in victory for the IDF, is the last battle or not, and as long as we cannot be confident that we have won the last battle, let us not glory.[244]

This is a clear acknowledgment and a warning of the threats emerging from the fact that Israel is surrounded by enemies. Ben-Gurion simply suggests that the war is, in fact, not over given the conditions of quantitative inferiority and the hostility of the neighboring countries. The important point to emphasize is that this threat is, in essence, an existential one, not only against the newly established State of Israel but the whole people of Jews. Ben-Gurion’s speech about *annihilation* is due to this concern.

[244] ‘20: “Let Us Not Glory” - from a Statement by Prime Minister Ben-Gurion Ministry of Foreign Affairs’, accessed 10 December 2024, https://www.gov.il/en/pages/let-us-not-glory-from-a-statement-by-pm-ben-gurion.

According to the Meridor Committee (2019 11), the early period was marked by two strategies of security: a defensive one aimed to prevent any kind of damage to the State of Israel, and an offensive one related to preemptive attack.[245] Therefore, traditional security is based on the ‘’security triangle’’ based on three principles, which are deterrence, early warning, and decision.[246] The last one is further referred to as ‘’offensive power’’.[247] The three principles can be summarised as such:

1. Deterrence for the fight against war and terrorism,
2. Early warning refers to intelligence for identifying the threats against the state,
3. The decision in terms of being able to have a political upper hand vis-a-vis other states after a decisive military victory.[248]

Specifically, quantitative inferiority and lack of strategic depth prioritized the preemptive attacks and qualitative strength of the army. Subsequently, the use of the military was considered normal. The deployment of preventative military measures to deter the enemy's offensive perspective has become typical.[249] This militarization is mostly reflected in Israeli politics and society as well, which in turn affects the security ethos. For example, the IDF is a very important component of Israel since the service of the reserve army is mandatory so that the population can be mobilized quickly in times of full-scale war. This was another way to fight against qualitative inferiority in manpower.

Therefore, according to the traditional security understanding, the threats associated with Israel were mainly due to the geopolitics of the region given the political isolation of Israel among its neighbors. On the other hand, Ben-Gurion created the security doctrine with a special consideration of the Jewish history marked by exiles, pogroms, and eventually the Holocaust. Accordingly, Israel was now facing another threat of

[245] Dan Meridor, Ron Eldadi, ‘Israel’s National Security Doctrine: The Report of the Committee on the Formulation of the National Security Doctrine (Meridor Committee), Ten Years Later’, February 2019, 11, https://www.inss.org.il/wp-content/uploads/2019/02/Memo187_11.pdf.
[246] Dan Meridor, Ron Eldadi, 24.
[247] Nagel and Schanzer, ‘From Ben-Gurion to Netanyahu: The Evolution of Israel’s National Security Strategy’, 3.
[248] Shay Shabtai, ‘Israel’s National Security Concept: New Basic Terms in the Military-Security Sphere’ 13, no. 2 (2010): 11.
[249] Dowty, ‘Israeli Foreign Policy and the Jewish Question’, 14.

possible extermination because of its neighbors and the security threats were existential in essence and mostly of military nature. Yet, Ben-Gurion acknowledged the non-military nature of national security threats inter alia. His perspective of national security encompassed various risk scenarios confronting the country, the majority of which were not of a military nature.[250] These risks could be eventually linked to the economy, society, and international relations of the State of Israel. Based on Fried's definition of national security, it can be said that Israel has opted for a military response as a countermeasure.[251] As a result, the national security doctrine created by David Ben-Gurion, known as the Ben-Gurion doctrine, was developed using a zero-sum strategy.

4.1.2. Israeli National Security in the Post-Cold War Era

The post-Cold War era brought significant changes for the Middle East. For Israel, this era caused different types of concerns and hopes as well. Israel exiting the Cold War is very important.

To begin with, the Cold War provided ‘’relative regional stability’’ to a certain degree.[252] Thus, the end of the Cold War brought the ‘’deglobalization’’ of the Arab-Israeli conflict.[253] For the whole period of the Cold War, the Middle East was directly affected by superpower rivalry. Most times, the countries of the regions were leveraged by superpower power politics. It is known that the Soviet Union had an influential presence in the region, which the U.S. was trying to contain. Some of the Arab Republics, such as Syria, were in the circle of influence of the Soviets. Even though there was no real ideological affinity between the Arab Republics and the Soviet Union- in the sense that Arab Republics were not in defence of communism, but rather they aimed to discard the colonial influences of the U.S., Britain, and France- the region eventually became a playground for the Cold War. While this was the case, Israel became a strategic asset for the U.S.

[250] Fried, ‘Military, Civilian, or Both’, 137.
[251] Fried, 127.
[252] Shabtai, ‘Israel's National Security Concept: New Basic Terms in the Military-Security Sphere’, 9.
[253] Shlomo Avineri, ‘Israel and the End of the Cold War: The Shadow Has Faded’, *The Brookings Review* 11, no. 2 (1993): 26, https://doi.org/10.2307/20080383.

Another point is the fact that the Cold War period was marked by the Arab-Israeli dispute with several wars that occurred in 1948, 1956, 1967, and 1973. This point is important as this was the first three decades of the State of Israel. Thus, in its first decades of existence, Israel fought more than one full-fledged war every decade.[254] The support of the Soviet Union for Israel's enemies in the larger Arab-Israeli dispute created a cognitive consciousness in Israel regarding who the enemy was since it was not only its neighbors but also an adversary empire on the global level.[255] For the Soviet Union, relations with Israel were severely damaged due to Israel's affinity with the U.S. and the issue of Soviet Jewry- regarding Soviet Jews emigration and the infamous Doctor's Plot of 1953.[256] That is why the fall of the Soviet Union was a relief. The Soviet decline, more than anything, affected the decline in Arab nationalism in an irreversible way. Considering that the Arab-Israeli conflict has been historically at the heart of the concerns for Israel, this was a satisfying development. This could have brought a new phase in the relationships between Israel and its neighbors, specifically, for the Palestinian issue.

The period after the Cold War highlighted unique threats that were exacerbated due to globalisation and multipolarity. In terms of regional security, the Eastern Mediterranean has seen the rise of terrorist groups that acted alone or used as proxies, sectarian tensions, and external influences. Thus, the region was fertile to more conflicts. The rise of non-traditional threats and more non-conventional modus operandi against the states were taken seriously by Israel. The number and the nature of opponents proliferated for Israel with non-state actors who intruded into Israeli territory.[257] The decade began with the Gulf War of 1990-1991, which had serious implications for Israel. Although not directly involved in the war, Israel managed to strengthen its partnership with the U.S. and diminish the threat of Iraq.

Hence, for the sake of gaining legitimacy, which has been an ongoing problem, Israel began to form alliances with the countries of the region. An additional context should be

[254] Rodman, 'ISRAEL'S NATIONAL SECURITY DOCTRINE: AN INTRODUCTORY OVERVIEW', 71.
[255] Avineri, 'Israel and the End of the Cold War', 29.
[256] Arthur Jay Klinghoffer, 'Soviet - Israeli Relations', *Contemporary Jewry* 11, no. 1 (1990): 93–94.
[257] 'Guidelines for Israel's National Security Strategy', 18, accessed 29 July 2024, https://www.washingtoninstitute.org/media/4613.

given here: Israel's quantitative inferiority showed the primacy of self-reliance; thereby, the previous situation could be overcome by its technological advancement and the power of the army forces. In the Arab-Israeli dispute, Israel managed to have decisive victories over and over again. Therefore, it appeared that forming alliances and having mutual peace agreements with the surrounding countries were the easiest solutions for legitimacy provided that Israel now had military superiority. Indeed, the 1990s were marked by first the Oslo Accords in 1993, and then, the peace treaty with Jordan in 1994.

Turning back to the security doctrine, the understanding of the security of the previous decades was based on the conceptualization of David Ben-Gurion and moulded by the Cold War dynamics as well. The changing nature of conflicts and hostilities in the region together with the accompanying and unique threats of globalisation made the security understanding fairly outdated. However, the important point is the fact that Ben-Gurion's influence over the security ethos with the three principles is still shaping Israeli national security today. However, the changing nature of conflicts and hostilities in the region together with the accompanying and unique threats of globalisation made the security understanding fairly outdated. First of all, according to Nagel and Schanzer, there was a bureaucratic problem as Israel did not have an official counsel for the security agenda.[258] However, on March 7 1999, by the authority of the Knesset, it was approved to create a National Security Council (NSC) under the authority of the Government and the Prime Minister, where the Council is responsible for making recommendations and planning for the security agenda and for implementation and monitoring of it.[259] That is why there were three official attempts to reframe the security ethos with the onset of the 1990s and the 2000s.[260] In 1998 by former Major General in IDF and former head of the Israeli NSC David Ivri, in 2006 by the Meridor Committee, and in 2015 by General Gadi Eizenkot of Israeli Defence Forces (IDF).[261]

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[258] Nagel and Schanzer, 'From Ben-Gurion to Netanyahu: The Evolution of Israel's National Security Strategy', 3.
[259] 'Israel National Security Council', accessed 26 November 2024, https://www.jewishvirtuallibrary.org/israel-national-security-council.
[260] Shabtai, 'Israel's National Security Concept: New Basic Terms in the Military-Security Sphere', 9.
[261] Nagel and Schanzer, 'From Ben-Gurion to Netanyahu: The Evolution of Israel's National Security Strategy', 3–4.

The revision attempts were to modify the traditional security doctrine in Israel with the ongoing challenges on the national, regional, and international scales. However, it is seen that all of these revisions embraced a military-security mindset. In a state where war is constant, it is expected that military-based security thinking will be prioritized. Moreover, it might be seen that non-traditional segments of security, which are definitely recognized by Israel, might still be addressed via military means. In addition, the revision attempts gave certain suggestions to be added to the original security doctrine by strategic and tactical means but were never officially recognized by Israel.

The most comprehensive of all three was the Meridor Report. The new unconventional threats that gained significance with globalisation such as the changing nature of conflicts have been recognized with an emphasis on military counter-response.[262] It is stated that on the regional level, Israel had partners and allies, which was promising since the spillover of regional disputes -like the Israeli-Palestinian dispute- into the international arena was damaging Israel's reputation and legitimacy.[263] Once again, the problem of legitimacy gives the idea of Israel's desire to get rid of its isolation. It is stated that:

> To deal with the existing and emerging threats, Israel should rely on a mix of prevention, deterrence, defence, and offence. In building its response, Israel should establish an order of priorities between existential and other threats and actual and potential threats.

The Committee adds a fourth pillar to the previously described ''security triangle'': defence. It specifically pertains to border defence, intelligence, and facilities that may be symbolic or critical to infrastructure. A final important point is about the definition of Israeli national security, which is based on two bases: 'political infrastructure and physical security'.[264] Physical security could relate to the country's resources such as water as water scarcity constitutes a physical type of threat. In addition, to the recognition of possible attacks on facilities, it could be argued that Israel is concerned about an attack on its sensitive water infrastructures. This is why the revised security

[262] Dan Meridor, Ron Eldadi, 'Israel's National Security Doctrine: The Report of the Committee on the Formulation of the National Security Doctrine (Meridor Committee), Ten Years Later', 13.
[263] Dan Meridor, Ron Eldadi, 21.
[264] Dan Meridor, Ron Eldadi, 40.

doctrines drew attention to the non-traditional threats in a similar fashion to global politics. The Meridor Committee stressed the fact that while the chance of conventional war has decreased and the threat of unconventional and nonconventional battles has increased, the potential of war between conventional armies in the next decade, while unlikely, cannot be completely ruled out.[265]

The Israeli domestic political situation in the last three decades in the post-Cold War can be observed to understand the security strategies as well. The decade began with the 1991 Madrid Peace Conference pioneered by the U.S. and the Soviet Union, where bilateral talks between Israel and its Arab neighbors like Jordan, Lebanon, and Egypt occurred. A crucial point was the existence of the Palestinian side in the Conference, showing that Israel was willing to begin the peace process with the Palestinian people. The head of the Israeli delegation was former Prime Minister Yitzhak Shamir. The Israeli position stayed persistent in certain points that were non-compromisable including the rejection of a separate Palestinian State, Jerusalem staying under the sovereignty of Israel, and refusing to face anyone representing the PLO.[266] It could be argued that Shamir stated some important opinions that showed his understanding of Israeli national security. He said:

> Jews have been persecuted throughout the ages in almost every continent. Some countries barely tolerated us; others oppressed, tortured, slaughtered, and exiled us. This century saw the Nazi regime set out to exterminate us. The Shoah-the Holocaust, the catastrophic genocide of unprecedented proportions which destroyed a third of our people-became possible because no one defended us. Being homeless, we were also defenceless. … In defiance of international will and legality, the Arab regimes attempted to overrun and destroy the Jewish state even before it was born.[267]

He additionally claimed:

> In Israel, there is an almost total consensus for the need for peace. We only differ on the best ways to achieve it. In most Arab countries, the opposite seems to be true. The only differences are over the ways to push Israel into a defenceless position and,

[265] Dan Meridor, Ron Eldadi, 20–33.
[266] 'The Madrid Peace Conference', *Journal of Palestine Studies* 21, no. 2 (1992): 125, https://doi.org/10.2307/2537235.
[267] 'The Madrid Peace Conference', 129.

> ultimately, to destruction. We would like to see in your countries an end to poisonous preachings against Israel.[268]

These statements validate the previous points on the existential concerns of Israel due to the fear of annexation. Yet, it could be argued that currently thanks to a strong military, the fear of total annexation turned into a fear of terror attacks. In 2016 Netenyahu said

> I think the point of departure in the battle against terrorism is this: Nothing justifies terrorism - absolutely nothing. In Paris or Brussels or San Bernardino or Tel Aviv or Jerusalem - terror must be condemned equally and it must be fought equally.[269]

Nevertheless, Shamir's above comment on the need for peace additionally shows that the geopolitical situation that was characterized by wars, hostilities, and terror attacks was becoming to be felt as a security burden for Israeli national security.

The Madrid Peace Conference was successful to a certain extent as it paved the way for the Oslo Accords in 1993 and 1995. The Oslo I Accord was initiated with the endeavour of former Israeli Prime Minister Yitzhak Rabin. It can be said that Rabin brought a new understanding of national security by redefining the Zionist narrative of Israel's isolation in the region. On 13 July 1992, Rabin made this speech in Knesset:

> No longer are we necessarily "a people that dwells alone," and no longer is it true that "the whole world is against us." We must overcome the sense of isolation that has held us in its thrall for almost half a century. We must join the international movement toward peace, reconciliation and cooperation that is spreading over the entire globe these days - lest we be the last to remain, all alone, in the station. The new Government has accordingly made it a central goal to promote the making of peace and take vigorous steps that will lead to the end of the Arab-Israeli conflict. We shall do so based on the recognition by the Arab countries, and the Palestinians, that Israel is a sovereign state with a right to live in peace and security. We believe wholeheartedly that peace is possible, that it is imperative, and that it will ensue.[270]

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[268] 'The Madrid Peace Conference', 131.
[269] 'PM Netanyahu on Terror Attacks 23 Mar 2016', accessed 13 February 2025, https://embassies.gov.il/wellington/NewsAndEvents/Pages/PM-Netanyahu-on-terror-attacks-23-Mar-2016.aspx.
[270] '1: Address to the Knesset by Prime Minister Rabin Presenting His Government, 13 July 1992 Ministry of Foreign Affairs', accessed 25 December 2024,

As understood, Rabin aimed to drift from the previous zero-sum-based security thinking via the prioritization of diplomacy over military means. In fact, Oslo I was a major progress. On September 13, 1993, Israel and the Palestine Liberation Organization (PLO) signed the Declaration of Principles on Interim Self-Government Arrangements (DOP), with the mutual agreement of Yitzhak Rabin and the PLO Chairman Yasir Arafat, resulting in both sides mutually recognising each other, Palestinian self-autonomy in the West Bank and Gaza, and international legitimacy for the Palestinian National Authority.[271] On top of this, Oslo II enhanced Oslo I, dividing Palestinian territory into areas to be administered by different administrative authorities in an attempt at security cooperation. In any case, the Israeli military control over the Palestinian areas. For Israeli national security, the Oslo Process was a chance to promote peace and international legitimacy and a challenge to internal disputes and terrorism. Indeed, the result was the assassination of Yitzhak Rabin by an Israeli religious extremist on 4 November 1995.

Rabin's attempted strategy was unprecedented to the extent that after his assassination the Labor Party could not finish his peace prospects. For example, former Prime Minister Ehud Barak was also from the Labor Party; however, his period witnessed the failure of the Camp David Accords in 2000 and the Al-Aqsa raid. The collapse of the Camp David Summit in 2000, followed by the onset of the second Palestinian Intifada, effectively ended the Oslo Process.[272]

Traditionally, Labor and Likud Parties shared the Iron Wall Policy; however, they have different approaches to security strategy. The Washington Institute's Policy Analysis compares some of the passages that were taken by the Party platforms before the May 29, 1996 elections. Accordingly, the Labor Party's stance on security was expressed as ''Israel will continue to develop its qualitative advantage over the Arab armies (...) The fight against terror and subversion must be a central factor in the peace and security policy of Israel. The Israeli government will see itself as free to choose the place,

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https://www.gov.il/en/pages/1-address-to-the-knesset-by-pm-rabin-presenting-his-government-13-july-1992.

[271] Bureau of Public Affairs Department Of State. The Office of Electronic Information, 'The Oslo Accords, 1993' (Department Of State. The Office of Electronic Information, Bureau of Public Affairs., 13 December 2007), https://2001-2009.state.gov/r/pa/ho/time/pcw/97181.htm.

[272] Department Of State. The Office of Electronic Information.

manner, means, and timing for the war against terrorism'' whereas the Likud stated that ''Security is the basis for durable peace in our region. Israel will make security a first condition in any peace agreement (...) The IDF and other Israeli security forces will enjoy complete freedom of action, as needed, in all places in their struggle against terror.''[273] This comparison elucidates a clear distinction between the left and right sides of the political spectrum in Israel. While the Labor put emphasis on the democratic character of the state, Likud focused on national security above all else. Regardless, both sides made the point on how the military is a key institution for maintaining national security.

Indeed, the national election of 1996 was quite important as Benjamin Netanyahu won over Shimon Peres. Netanyahu, as the leader of the Likud Party, was known to be against the Oslo Accords since he was sceptical of the PLO's intentions. As a consequence, the peace process began to lose ground. Netanyahu himself was a politician who followed the existentialist security doctrine. Therefore, the 1990s began with hopes for peace with peace agreements; however, lost momentum by the end of the decade.

The new millennium witnessed a grand historical event for Israel's security assessment, which was the terror attack that was carried out by Al-Qaeda on the Twin Towers on 9/11 and the subsequent *War on Terror* organised and launched by the U.S. and Great Britain under the leadership of George W. Bush and Tony Blair. This was important as the face of terror shifted from the former Soviet Union to the Middle East with the rise of Jihadists and Islamist terrorists in the 1990s which manifested itself into a devastating terror attack. What is referred to as 'Islamist terrorism' was already a source of trouble for Israel. Some examples of this could be Hamas and Hezbollah as Israel's historical enemies, and Al-Qaeda and ISIS in the coming decades. One of the major concerns was that these groups were physically close to Israel's borders, and there was the additional risk of inside terror attacks. Another was the tendency of collaboration among these groups. For example, during the Second Intifada between September 2000 and November 2005, Hezbollah showed support. This event is referred to as the Oslo War by Israel implying the failure of the Oslo Accords. In this vein, regional security

[273] 'Labor/Peres vs. Likud/Netanyahu: A Comparative View | The Washington Institute', 23 May 1996, https://www.washingtoninstitute.org/policy-analysis/laborperes-vs-likudnetanyahu-comparative-view.

was hanging on a thread from the beginning. The Second Intifada highlighted the asymmetric threats via the utilization of unconventional tactics. The result for Israel was increased security concerns and changing defence and attack strategies for the changing threats. It can be argued that the creation of the West Bank Barrier or the Separation Barrier is such a strategy. In this vein, one could argue that between the years 2000 and 2020, there were many conflicts and terror-related incidents. For example, the 2006 War between Hezbollah and Israel was a significant one, showing once again the insecurity caused by the elevated sectarianism in the region between the Sunni and Shia groups. Israel, as a country surrounded by its predestined enemies, was in the middle of these conflicts. Furthermore, in these past two decades, the Hamas-Israel conflict deepened as well. All these show that Israel needed considerable vigilance.

It can be said that the national security strategy of a country is shaped according to the totality of all sorts of threats. Israeli national security is no different. Considering the fact that the post-Cold War era brought several new challenges for the region, Israel had to be attentive and vigilant. As this period was characterized by the rise of unconventional and unconventional threats, Israel could not turn its face from them. Thus, Israeli national security doctrine remained extremely calculative, persistently in consideration of extreme but reasonable threat scenarios due to regional instability.[274]

4.1.3. Israeli Security and Low-Politics

What has been said so far gives the impression that Israeli security doctrine prioritized matters of high politics. This is not surprising considering the long history of wars and armed conflicts of a country that has existed for less than a hundred years. Nevertheless, Israel has definitely taken into consideration the matters of low politics as well. Israel coincided the two areas together to a certain degree.

If the matters of low politics are highlighted, the growing environmental consciousness was additionally visible in Israel. Israel recognizes climate change as a security threat for example. However, Alterman suggests (2015 117) that with the presence of other geopolitical hostilities like Iran's nuclear capabilities or the Palestinian issue, the subject of climate change is low on Israel's security agenda.[275] Yet Israel is a party to or

[274] 'Guidelines for Israel's National Security Strategy', 27.
[275] Owen Alterman, 'Climate Change and Security: An Israeli Perspective' 18, no. 2 (2015): 117.

embraced the previously mentioned treaties such as the Brundtland Report, Rio Declaration, Dublin Convention, UNFCCC, Kyoto Protocol, and the Paris Agreement. In addition, Israel adopted the UN's Sustainable Development Goals. Even if these documents are non-binding, Israel showed commitment to international sustainability efforts by adapting the byproduct principles into national policies. As an example, Government Decision No. 4631, tasked the Minister of Foreign Affairs and the Minister of Environmental Protection to integrate the UN SDGs to be integrated into the government's strategic planning on 14.07.2019.[276] A recent report of the Mashav- the agency of International Development Cooperation in Israel- draws a special relationship between climate change, water scarcity, and Goal 6 of SDGs:

> The water balance between demand and available supply of natural water resources shows a constant deficit, growing from year to year. The permanent challenge is to close the gap. Furthermore, and most importantly, natural replenishment is challenged by the impacts of climate change: droughts are more frequent, and when occurring are more intense and for longer periods…In alignment with the UN 2030 Agenda and Sustainable Development Goal 6, Israel's Ministry of Foreign Affairs appointed a Special Envoy for International Water Affairs to join the efforts of ensuring access and availability of water to all

While it is accurate that Israeli authorities take climate change seriously with a special lens on national security. Climate change is an interesting phenomenon for Israel as it brings both challenges and opportunities. Unquestionably, the detrimental effect climate change has on resources is well known. The Israeli Climate Change Information Center (ICCIC) was formed by the Ministry of Environmental Protection in March 2011 per Government Decision No. 474 of June 2009.[277] Accordingly, Israel recognizes the adverse effects of climate change on water resources causing water scarcity and summarises them as follows: a significant reduction in water in Lake Kinneret, a decrease in precipitation levels in southern Israel, and a reduction in rainfall across the country ranging from 50% to 300%.[278] Furthermore, it adds that the high water

[276] 'Integrating the UN Development Goals to Improve Governance and Strategic Planning Processes in Government', www.gov.il, accessed 24 December 2024, https://www.gov.il/he/pages/dec4631_2019.https://www.gov.il/he/pages/dec4631_2019.
[277] 'About Us | About Us | ICCIC', accessed 24 December 2024, https://www.iccic.org.il/about-us.
[278] 'Water | ICCIC', accessed 24 December 2024, https://www.iccic.org.il/Water.

technology on which Israel relies, such as desalination or waste-water treatment, consumes a lot of energy while contributing to GHG emissions, resulting in a tradeoff between climate change mitigation and water scarcity reduction.[279] Alterman suggests that the promotion of Israeli technology and mitigation strategies could bring geopolitical and international benefits for Israel in the long-run.[280] This part will be explained in the last chapter.

4.2. Securitization of Water Scarcity in Israel

Israel is located in one of the most water-scarce regions in the world. Considering its already fragile geopolitical position, a lack of a natural resource is expected to worsen the security situation. In the context of water scarcity, a resource as vital as life itself, as any other nation-state Israel will likely ensure the well-being and survival of the state. However, Israel happens to be an extraordinary country in the sense that the concern over water started in the pre-state period. The attempts to fix the water problem from such a date make Israel both unique and pivotal. The attempts of the early settlers and the founders of the State of Israel led to the securitization of water. Therefore, before all else, the connection of water to Zionism should be explained. Only after will the securitization of water on practical grounds make sense.

4.2.1. Zionism and Water

For the early settlers, the piece of land they arrived in -that was promised to them by a religious promise and by the British- was lacking important resources; and consequently, backwards regarding infrastructure. Thus, the process of building a nation was challenging.

In his paper, Rouyer (1996 28) investigates the connection between Zionism and water through the experience of local people in Palestine providing an alternative perspective. First of all, he explains the Zionist aim by arguing that Zionism is a synthesis of ‘’traditional religious beliefs’’ and ‘’desires of national self-determination’’.[281] Indeed, the issue of water was an essential part of this Zionist project. Water was perceived not

[279] ‘Water | ICCIC’.
[280] Alterman, ‘Climate Change and Security: An Israeli Perspective’, 119.
[281] Alwyn R. Rouyer, ‘Zionism and Water: Influences on Israel’s Future Water Policy During the Pre-State Period’, *Arab Studies Quarterly* 18, no. 4 (1996): 28.

only as a commodity or a means of survival but also as a national goal and for some a larger part of a ‘’religious prophecy’’.[282] Thus, the Zionist idea of *the return* to be followed by the *national revival,* the land and its resources had to be owned. Motivations regarding water grew to ensure national ownership of land.[283] In light of this, Rouyer claims, ‘’The relationship between Zionism and water is a complex mix of historical imperative, modern socialist ideology, and traditional Judaic concepts of redemption.’’[284]

Therefore, water has a religious dimension to it. Perhaps, one can argue that the report ‘’Israel: A Global Leader in Water Management and Technology’’ published by the Ministry of Foreign Affairs began with a religious verse *Isaiah 41:17-18:*

> When the poor and needy seek water, and there is none, and their tongue faileth for thirst, I the Lord will hear them, I the God of Israel will not forsake them. I will open rivers in high places, and fountains in the midst of the valleys: I will make the wilderness a pool of water, and the dry land springs of water.*[285]*

It continues by explaining an ancient story of Moses drawing water during the Exodus.[286] Without a doubt, Israel recognizes that this is only symbolic and prioritizes actual technology. However, the religious sentiment is crucial for the Zionist narrative.

Indeed, one slogan that is always seen when it comes to the relationship of Israel to water is ‘’make the desert bloom’’. Namely, the transformation of an arid land into a fertile one with the efforts of the settlers. Thus, ‘’making the desert bloom’’ has grown into a national goal within the framework of overall Zionist ethos.[287] As explained earlier, water security is more than having access to water. Although the importance of water for the economy and industry is unquestionable, it has become more than a commodity. It was instrumentalized in the making of a new Jewish society.[288] This is a

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[282] Rouyer, 25.
[283] David H. K. Amiran, ‘Geographical Aspects of National Planning in Israel: The Management of Limited Resources’, *Transactions of the Institute of British Geographers* 3, no. 1 (1978): 117, https://doi.org/10.2307/621815.
[284] Rouyer, ‘Zionism and Water’, 26.
[285] ‘Israel: A Global Leader in Water Management and Technology’.
[286] ‘Israel: A Global Leader in Water Management and Technology’, 4.
[287] Nadav Morag, ‘Water, Geopolitics and State Building: The Case of Israel’, *Middle Eastern Studies* 37, no. 3 (2001): 184.
[288] Morag, 184.

reference to the importance of agriculture in Israel. With this slogan, the Zionists gave legitimacy to the establishment of a Jewish state while delegitimizing its neighbors over the usage of water sources.

Another point is that as Zionism's biggest enterprise is a Jewish state, Jewish settlement -made possible due to waves of immigration throughout the decades- was a way of recognition and eventual sovereignty over the land. This point is important as it highlights one crucial fact, which is the fact that immigration highly advanced the demand and supply imbalance over water that the policymakers could not ignore. This reality unveiled itself pretty quickly. Nevertheless, for the Zionists, the harsh conditions of the region like water scarcity were understood as given. However, overcoming these obstacles with innovation and agriculture was a cornerstone of Zionist rationale. Building water infrastructure was an enterprise that goes back to the pre-state times. According to Azaryahu (2001), ‘’the water tower’’ was part of Zionist mythology and served as a fundamental Zionist emblem of national regrowth.[289] The Early Zionists acknowledged the weight of the transboundary water resources created for the planned state, in December 1919 Chaim Weizmann wrote in a letter to then Prime Minister Lloyd George: ‘’...the whole economic future of Palestine is dependent upon its water supply for irrigation and for electric power, and the water supply must mainly be derived from the slopes of Mount Hermon, from the headwaters of the Jordan and from the Litani River.’’[290]

To elucidate, one can investigate the stance of Ben-Gurion as water served an instrumental function for him. The issue of water had been aligned to the Labor Zionist view of an egalitarian society. Ben Gurion initiated the NWC project in 1951 with the goal of establishing a modern civilisation and dispersing the population around the country in a proportional fashion.[291] Accordingly, NWC is referred to as ‘’the most basic physical manifestations of the Zionist ideology’’.[292] Although Ben-Gurion was a part of the Labor Party, representing a socialist and a secular political perspective, it can be

[289] Maoz Azaryahu, ‘Water Towers: A Study in the Cultural Geographies of Zionist Mythology’, *Ecumene* 8, no. 3 (2001): 321.
[290] ‘Water and Israel’s Occupation Strategy’, MERIP, 17 July 1983, https://merip.org/1983/07/water-and-israels-occupation-strategy/.
[291] ‘The National Water Carrier - הארכיון הציוני’, accessed 15 December 2024, http://www.zionistarchives.org.il/en/pages/hamovill.aspx.
[292] ‘The National Water Carrier - הארכיון הציוני’.

argued that this perception of Zionism was both embraced by the general political spectrum and/or exceeded its religious connotation by highlighting the project of building a nation-state. Again, here it is seen that the history of Jewish people might surpass the religious sentiments. Moreover, the issue of water aligned with the Labor Zionist view of an egalitarian society.

On 30 November 1953, The former Israeli prime minister Moshe Sharet said:

> …For Israel, water is no luxury, not even merely a highly desirable and useful addition to our system of natural resources. Water for us is life itself. It is food for the people and not food alone. Without large-scale irrigation projects we shall not achieve high productivity, balancing the economy or economic independence. For without irrigation we shall not at all produce worthy agriculture under our special circumstances, and without agriculture particularly highly developed and progressive agriculture shall not be a people rooted in the land, secure in its existence, stable in its character, in control of all the possibilities of material and spiritual creation inherent in it and which this country can open before it.[293]

Sharett made this speech regarding the peace efforts and negotiations among surrounding countries. However, from this part of the speech, it is important to note the ultimate connection made between water and the existence and the stability of the state.

Water has been designated as a valuable resource to transform the arid landscape into a productive and self-sustainable one. The complexity of the water situation in the Palestinian land was a concern that had been long acknowledged. Water, in addition to symbolic meaning for the religious and political situation in Israel, was equally important for the physical security of both the state and its people. On the grounds of this water's role in the Zionist perception is linked to the return, survival, and the creation and development of the nation.

4.2.2. Securitization Theory and Water Scarcity in Israel

[293] 'Speech on Israel's Water Rights (November 1953)', accessed 15 December 2024, https://www.jewishvirtuallibrary.org/speech-on-israel-s-water-rights-november-1953.

Israel's water securitization can be explained by the Securitization Theory of the Copenhagen School. This would help understand policymakers' strategies to place water scarcity issues from the environmental agenda to national security.

While the Zionist movement had instrumentalized water at the times of *Yishuv* and the onset of the establishment of the State of Israel, this instrumentalization reflected itself upon the security agenda as well. If water is deeply connected to nation-building and survival, then water is an existential commodity above all, which makes the lack of it an existential threat.

As stated, the post-Cold War period brought new dimensions to Security Studies as a discipline. This point was tried to be proven by the historical process and the inclusion of non-traditional threats into the formal security strategies. Noticeably, there have been various fresh theories on security. One of them is the Securitization Theory of the Copenhagen School, which is appropriate in the examination of Israel's securitization of water scarcity. In essence, the Copenhagen School aimed to challenge the traditional security discourse that focused on the well-being of the state with an emphasis on the military-political sector. In this sense, representatives of the Copenhagen School- Barry Buzan, Ole Weaver, and Jaap de Wilde included various sectors that can be included in the security agenda with the non-traditional threats that have been previously often overlooked.

In the simplest terms, *securitization* refers to the process of putting an issue of any kind into the security agenda. In the book by Buzan, Weaver, and de Wilde, Security: A New Framework for Analysis, it is stated that: ''Security'' is the move that takes politics beyond the established rules of the game and frames the issue either as a special kind of politics or as above politics.''[294] The method of this process is the important part. Securitization involves the process of an issue being defined as an ''existential threat to a particular referent object''.[295] As such, the Copenhagen School defines a securitized issue as one that ''presented as an existential threat''; therefore can ultimately be addressed with ''extraordinary measures''.[296] Thus, the presentation of the securitized

[294] Buzan, Waever, and Wilde, *Security*, 23.
[295] Matt McDonald, 'Constructivism', in *Security Studies: An Introduction*, Reprinted (London New York, NY: Routledge, 2010), 69.
[296] Buzan, Waever, and Wilde, *Security*, 26.

issue justifies the subsequent emergency actions. The move of securitization is aligned with a sense of urgency. Here, it is crucial to highlight that for the Copenhagen School, an issue does not constitutionally have to have an existential tie to it; therefore, it only has to be presented or constructed as such. In Israel water scarcity is indeed a problem; thus, it does not necessitate a depiction of the problem that claims to be an existential one; it already is. According to the Securitization Theory, this is known as the ''facilitation condition'', which reveals the historical ties that are related to the perceived threat and facilitates the audience's acceptance of the securitization move.[297]

It can be argued that, based on the Copenhagen School's formulation, the Israeli case can further be placed under the Societal Security Complex. Societal Security refers to a group or kind of collective that defines itself through an anticipated identity. It is stated that: ''Society is about identity, the self-conception of communities and individuals identifying themselves as members of a community.''[298] From this rationale, it is argued that: ''Societal insecurity exists when communities of whatever kind define a development or potentiality as a threat to their survival as a community''.[299] Thus, societal insecurities reinforce the perceptions around ''us vs. them''. The authors claim that: ''...the 'we' have to be threatened as to its identity''.[300] In Dowty's (1999 4) words: ''Security cannot be measured simply by the objective threats that a nation faces; in the end, it is a subjective feeling of safety in the minds of individuals''.[301]

Societal security complex applies to the Israeli case in two ways: the first is regarding the ''built'' relationship between water and Zionism, and the second is regarding a feeling surrounding the idea of separateness. Regarding the first way, it can be said that if the essence of the securitization theory is the construction of any problem as an existential one, then the Zionist narrative attributed to water in its relation to the survival of the Jewish State is the cornerstone of Israel's securitization of water scarcity. This historical depiction that transcends purely religious and political domains, is carved into the cognitive memory of resilience. This relates to how water extends beyond a mere physical material that can be harvested and used; but a symbolic one.

[297] Matt McDonald, 'Constructivism', 70.
[298] Buzan, Waever, and Wilde, *Security*, 119.
[299] Buzan, Waever, and Wilde, 119.
[300] Buzan, Waever, and Wilde, 123.
[301] Dowty, 'Israeli Foreign Policy and the Jewish Question', 4.

The symbolism constitutes the foundation of the Zionist narrative of ‘’making the desert bloom’’. Secondly, the sense of separateness is labeled as ‘’exceptionalism’’ by Merom (1999).[302] Accordingly, ‘’exceptionalism’’ refers to the history of Jewish people that created anxiety and a sense of isolation further reinforced and perpetuated by the political and military conflict between Israel and its neighbors beginning in the 20th century.[303] Israeli national security is run by a sense of exceptionalism.[304] The author suggests, ‘’The foundations of the Israeli image of exceptionalism created a persistent sense that Israel is entangled in a conflict of unparalleled dimensions: ‘total ideological antagonism, an almost untenable strategic relationship, and unmitigated hostile conduct.’’[305]

As it is a process of construction, it involves a declaration that can be done by a securitizing actor through the process of *speech act*. The speech act is a ‘’securitizing move’’.[306] The following paragraphs will give some statements that exemplify the concept of speech act on action. Examples include statements by government officials, governmental units, or a political party, which can serve as a speech act since it needs to be a declarative action. Beginning with the above-mentioned 1996 elections, the Likud Party Platform stated that:

> Security areas vital for the defence of Israel and Jewish settlements will remain under full Israeli sovereignty. Israel will keep its vital water resources in Judea and Samaria. There shall be no infringement of Israel's use of its water resources. . . . The Jordan River shall be the eastern border of the State of Israel, south of Lake Kinneret.[307]

Thus, the water resources were assured as an election promise. Another example is the statement from the former head of the Israel Water Authority Alexander Kushnir. In an interview posted in the Times of Israel, Kushnir said: ‘’We know that geostrategic changes in the region can endanger our water sources, we certainly can’t afford to give

[302] Gil Merom, ‘Israel’s National Security and the Myth of Exceptionalism’, *Political Science Quarterly* 114, no. 3 (1999): 409–34.
[303] Merom, 410–11.
[304] Merom, 413.
[305] Merom, 413.
[306] Matt McDonald, ‘Constructivism’, 69.
[307] ‘Labor/Peres vs. Likud/Netanyahu’.

up our natural resources.'' In another interview posted in the Washington Post, the chairman of the Lake Kinneret Authority said:

> If the shortage of water in Israel becomes stronger and stronger, and we can't solve it by peaceful means, then it will have to be solved by war. What other choice is there? Water is like blood -- you can't live without it.[308]

Another interview posted in the Guardian, showed a former Israeli intelligence adviser Martin Sherman saying that:

> If the world were to work on the basis of rationality, water should never be a cause for war because for the price of a modern war, you could probably desalinate an entire sea, but rationality has rarely been applied to the causes of war and water certainly could be a cause or an excuse for a future conflict in the Middle East because Israel has to decide whether to rely on Arab altruism to safeguard the most important sources of its water supply as part of any future peace settlement.[309]

McDonald (2010 70) asks a rational question: ''Can forms of representation other than speech act as such securitizing moves?''[310] As an example, the television campaign ''Israel is Drying Out'' can be shown. The point here is that the campaign not only serves as an informative piece of media but also creates a sense of anxiety among the audience, the Israeli public, leading to panic. It does not suggest, nor does it imply a possibility of water being taken or targeted by an exterior source; yet, it functions as a tool for influencing the public on a cognitive level.

Dirioz proposes that (2020 58-59) the scarcity of a natural resource results in its securitization and as a vital resource water can naturally and quickly be securitized, having become embroiled in the rhetoric of what he refers to as a ''resource nationalism'', where access to water is a prerequisite for national survival.[311] This can be

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[308] Jackson Diehl et al., 'SEA OF GALILEE BECOMING DANGEROUSLY DRY', *Washington Post*, 23 December 1990, https://www.washingtonpost.com/archive/politics/1990/12/23/sea-of-galilee-becoming-dangerously-dry/fab76478-4007-4f72-9908-fe223c8320a4/.

[309] Chris McGreal, 'Deadly Thirst', *The Guardian*, 13 January 2004, sec. Environment, https://www.theguardian.com/environment/2004/jan/13/water.israel.

[310] Matt McDonald, 'Constructivism', 70.

[311] Ali Oguz Diriöz, 'Ensuring Water Security in the Middle East: Policy Implications 6 April 2020| Policy Study| English', April 2020, 58–59.

seen in the times of Yishuv. In times of man-made or natural crises such as wars and droughts securitization discourse can be legitimized.[312] The author suggests different ways of securitization of water such as structural, institutional, and linguistic; accordingly, the first type relates to the physical construction of protective areas around the water infrastructure; the second relates to the governmental actions of securing water access; and the third is related to the Copenhagen School's ''speech act''.[313] Regarding the first point, one can point out the military or institutional control of Israel over its occupied territories following the 1967 Six-Day War. Accordingly, the militarily controlled or supervised areas in the West Bank, which is above the Mountain Aquifer, and Golan Heights, which is the source of the Sea of Galilee and the Yarmouk River, can be clear examples of the securitization practices and the hydro politics of Israel.[314]

In a similar token, Fischlendar (2015) proposes another type of securitization referred to as ''tactical securitization'', which occurs when issues of low politics are linked to high politics issues of national survival.[315] In this case, water scarcity is linked to stability or conflict. For example, Fischlendar further argues that the 1994 Peace Treaty between Israel and Jordan was an example of how water was a tactical resource that stimulated peace talks for the sake of the issues of high politics.[316] By this logic, the right to access clean water by the other Eastern Mediterranean countries, specifically the Palestinian people, can be perceived as an existential threat. To be precise, the demand to have access to clean water can be interpreted as ingenuine, as if, for example, the Palestinian people do not want to have water for themselves as it is an inherent human right, but rather to deny the sovereignty of Israel over its territories and to take away the water *from* the Israeli people in order to annihilate them eventually. For most, this could be seen as a paranoid claim; but there is truth to it. For example, Levi Eshkol once said: ''It was only after the Zionists "made the desert bloom" that "they [the Palestinians] became interested in taking it from us.''[317] An additional example can be when former

[312] Diriöz, 59.
[313] Diriöz, 60.
[314] 'Water and Israel's Occupation Strategy'.
[315] Itay Fischhendler, 'The securitisation of Water Discourse: Theoretical Foundations, Research Gaps and Objectives of the Special Issue', *International Environmental Agreements: Politics, Law and Economics* 15, no. 3 (September 2015): 247, https://doi.org/10.1007/s10784-015-9277-6.
[316] Fischhendler, 247.
[317] Alan George, '"Making the Desert Bloom" A Myth Examined', *Journal of Palestine Studies* 8, no. 2 (1979): 88, https://doi.org/10.2307/2536511.

Infrastructure Minister Effi Eitam accused the Palestinian Authority of stealing Israeli water by engaging in a ‘’water intifada’’ in 2002 during the Second Intifada.[318]

While Copenhagen School’s conceptualization is very extensive, and the argumentations of Dirioz and Fischlendar contribute to it, there might be certain limitations. First of all, it can be argued that any subject can be securitized if anything, on a theoretical level, can be an object of the existential narrative of Zionism. Meaning that the Zionist narrative may allow various topics to be put on the security agenda. This approach could be theoretically reductionist. Lupovici (2014 391) suggests that the feeling of insecurity is quite ‘routinized’ in Israel paving the way for the traditional security practices and emergency politics to be normalized; thereby, it is hard to conclude whether or not the securitization move succeeded.[319] Without a doubt, the Zionist narrative that dominates the national security ethos in Israel constitutes the basis of the existential lens on the securitization of water. However, the Zionist narrative represents a subjective approach, which is complementary to the facts and the realistic expectations of the future related to the water scarcity in Israel. Water scarcity endangers the physical security of the state and its citizens, which is the reason behind the development of water technologies such as desalination, irrigation, and wastewater recycling. In this context, another way of existential construction is how water scarcity will likely cause an insecurity spillover to other domains like agriculture and the economy, which will only be worsened by the adverse effects of climate change. Another issue Lupovici (2014 404) suggests is that, based on the conceptualization of the Copenhagen School, if a securitized issue loses its emergency status once it is securitized, then the Securitization Theory may be inadequate in its capacity to explain the enhanced threats due to the ‘’former securitized issue as an existential threat’’.[320] This is specifically true for Israel given the ‘exceptionalism’ related to existential fear is continuous. Nevertheless, Israel is not situated in constant emergency politics regarding water scarcity officially. After all, Israelis can access water at all times. Although water scarcity has been portrayed as a potential driver of conflicts leading to ‘’water wars’’,

[318] Alwyn Rouyer, ‘Basic Needs vs. Swimming Pools Water Inequality and the Palestinian-Israeli Conflict’, *Middle East Report*, no. 227 (2003): 7, https://doi.org/10.2307/1559317.
[319] Amir Lupovici, ‘The Limits of securitisation Theory: Observational Criticism and the Curious Absence of Israel’, *International Studies Review* 16, no. 3 (2014): 391.
[320] Lupovici, 404.

particularly with the rise of other armed disputes, there have been numerous attempts at water collaboration in the Eastern Mediterranean that will be explained in the next chapter.

4.3. Conclusion

This chapter aimed to explain the security rhetoric in Israel regarding its water scarcity problem. It made connections between how the domestic context in Israel and the regional context in the Eastern Mediterranean shaped the aftermath of the Cold War. Israel faced new challenges due to the changing nature of conflicts with the rise of nonconventional security threats; on the other hand, the period could bring new opportunities to be able to change the hostile relations with the neighbors. The security ethos in Israel was shaped during the times of the Yishuv and the early state period, and to this day it has not changed entirely. The national security doctrine of David Ben-Gurion remained steady and reformed itself in the face of other non-conventional security threats. In this vein, the securitization of water depends on two things: the Zionist rhetoric that the traditional national security doctrine was founded on, and the actual practices of this said rhetoric. Copenhagen School's Securitization Theory is explanatory with its concept of the 'societal security complex' with its remarks on the ''us vs. them'' feeling that Zionism dwells on. Water management in Israel was heavily reliant on Zionist beliefs and nation-building efforts long before the country was founded. As a result, the Israeli national security doctrine's radical zero-sum mindset is at the root of the water issue.

Chapter 4: Securitization of Water and Israeli Water Politics

This chapter aims to explore Israeli water politics in the Eastern Mediterranean by first comparing the differences in the international and regional contexts in terms of cooperation, and illustrating the securitization practices in the Eastern Mediterranean. Israeli water policy differs on international and regional levels. While on the international level, Israel seems to be an important actor with developed water technology, adherence to international bodies, and cooperation with other states; on the regional level, there is a different scenario that is characterized by territoriality, rivalry, and power asymmetry by building on the Copenhagen School's Securitization Theory.

5.1. Israeli Water Politics in the International Context

Israel made significant advances in innovative water technology that eliminates the burden of water scarcity in the country. Moreover, Israel shares its water technology with the hopes of tackling water scarcity and promoting agricultural development. MASHAV shares and helps adapt Israeli water technologies to various regions and countries such as ''China, India, Vietnam, Taiwan, Italy, Brazil, Mexico, South Korea, Poland, Russia, Canada and the United States'' based on Israeli national experience.[321] Thus, this part will focus on Israeli politics on the water in the international arena with special attention to adherence to international norms and law.

5.1.1. Cooperation in the Global Arena

Cooperation is essentially the act of working together towards a shared goal. It is the balance between interests and contributions. UN-Water emphasizes the importance of cooperation for transboundary water management.[322] Here, cooperation does not refer to a mere lack of conflict of all sorts, but an active action that can be observed and further regulated. In this framework, cooperation among states must benefit the greater good. That is, cooperation shall not benefit a single actor, rather the interests of all the actors should be taken into consideration.

[321] 'Israel: A Global Leader in Water Management and Technology', 21.
[322] 'Transboundary Waters', UN-Water, accessed 30 January 2025, https://www.unwater.org/water-facts/transboundary-waters.

The effort to turn the shared goal into a reality may lead to an international treaty. When a state ratifies the international agreement, it shows its dedication and adherence to international law. Israel has acknowledged and ratified some of the key documents regarding environmental degradation, climate change, and water issues. The ones on environmental degradation are important because of their vocalisation of water issues with the rise of climate change. In the earlier chapters, the details of these agreements were explained thoroughly. In this vein, the focus is on Israeli adherence to these treaties given that Israel recognizes itself as a world leader in water scenery.[323] As per the fact that international principles generated by these agreements then turn into norms and a shared understanding of global standards; and Israel's adherence to them eventually results in trust, credibility, and influence for Israel in the international arena. Moreover, international treaties can foster cooperation. For example, Israel ratified UNFCCC in 1996; Kyoto Protocol in 2004, and the Paris Agreement in 2016.[324] This confirms Israel's dedication to addressing climate change and considering it as a security issue.

Another example could be the SDG 6, Clean Water and Sanitation. In the simplest terms, Israel's water management policies are in direct conformity with SDG 6. Water technologies such as desalination, wastewater recycling, and drip irrigation ensure both quantity and quality of water. Thus, adherence to SDG 6 is crucial for sustainability along with national security. SDG 6 additionally encourages cooperation over water. In this context, Israel is once again in compliance thanks to the initiative of MASHAV to help developing countries. For example, Israel and India have a history of water cooperation and in 2018 Prime Ministers Benjamin Netanyahu and Narendra Modi signed an agreement of A Strategic Partnership in Water.[325] In addition, Israel is cooperating with Kenya for the protection of Lake Victoria by the implementation of Israeli water practices.[326] MASHAV is known to cooperate with various countries across Asia and Central Europe as well.

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[323] 'Israel: A Global Leader in Water Management and Technology'.
[324] 'United Nations Framework Convention on Climate Change', www.gov.il, accessed 24 January 2025, https://www.gov.il/en/pages/unfccc.
[325] 'INDO-ISRAEL Growing Partnership in WATER', accessed 29 January 2025, https://embassies.gov.il/delhi/Relations/Courses/Pages/Background.aspx.
[326] 'Environmental and Water Resources Protection of Lake Victoria', 1, accessed 29 January 2025, https://mashav.mfa.gov.il/sites/default/files/2023-09/KENYA.pdf.

While the above examples illustrate Israel's dedication to SDG 6, it inter alia shows that Israel has an economic and strategic advantage. It can be further argued that Israel is using water cooperation as a means of soft power.

Overall, it can be said that Israel's adherence to international treaties, even though they are non-binding, shows that Israel is committed to becoming an important player in the international arena via water. Israel has managed to use its water scarcity problem as a means of cooperation, which in return provided diplomatic and strategic partnerships. In the previous chapter, the legitimacy issue of Israel was mentioned. In this context, international cooperation over water and adherence to international treaties serve the Israeli image worldwide.

5.2. Israeli Water Politics in The Regional Context

This part will focus on Israeli water politics in the regional context. By building on the previous chapters the role of Israeli securitization of water scarcity affects politics over water in the Eastern Mediterranean will be discussed.

5.2.1 Territoriality Over Water

Water territoriality signifies a country's claim over water resources. When a state acquires a certain land, then it has a claim over the properties the land offers. These could be every natural resource that the land already has. Therefore, the politics over transboundary water resources are sensitive due to its relation to a nation's sovereignty.[327] Caponera (1985 568) asserts that when it comes to cooperation over transboundary water systems, the absolute sovereignty of a state can be rejected.[328] Ideally, in a regional framework, transboundary resources can be shared through cooperative management. However, territorial claims might pave the way for disputes among states, even armed conflicts.

As mentioned, the Eastern Mediterranean is characterized by a large system of transboundary water resources. This system includes lakes, rivers, and aquifers. The

[327] Juha I. Uitto and Alfred M. Duda, 'Management of Transboundary Water Resources: Lessons from International Cooperation for Conflict Prevention', *The Geographical Journal* 168, no. 4 (December 2002): 367, https://doi.org/10.1111/j.0016-7398.2002.00062.x.
[328] Dante Caponera, 'Patterns of Cooperation in International Water Law: Principles and Institutions', *Natural Resources Journal* 25, no. 3 (1 July 1985): 568.

important point is that some of the Eastern Mediterranean countries and populations do not have natural borders that are demarcated by mountain ranges or rivers, which is why the borders can be the subject of political developments. In other words, the territorial claims may change as a result of wars. This is specifically true for Israel since the borders of the country are still not confirmed or recognized to this day.

The Six-Day War in 1967 is specifically important to understand the border changes in the Israeli context as it changed the ‘’Green Line’’ which was the officially recognized borders of Israel after the 1949 Armistice.[329] The immediate aftermath of the war resulted in Israel's occupation of the West Bank (including East Jerusalem) and Gaza known as the ‘Occupied Palestinian Territories’[330] and the Golan Heights.[331] The Six-Day War is crucial to explain the water disputes as well. While the conflict changed the land distribution in favor of Israel, it cannot solely be regarded as *land* capture since Israel gained significant water resources. For example, West Bank and Gaza are above four aquifers in total, the North-Eastern, Eastern, and Western Aquifer known as the Mountain Aquifer situated in the West Bank, and the Coastal Aquifer situated in Gaza.[332] On the other hand, the Hasbani and Jordan Rivers are nourished by the Golan Heights. Golan was de facto controlled since 1967 and annexed in 1981 by Israel.[333]

In addition, the IDF launched Operation Litani in 1978 to exterminate the PLO’s infrastructure and to push the PLO beyond the Litani River in Southern Lebanon; at the end of the operation IDF redeployed and was replaced by the international cooperation forces.[334] Namely, the IDF was replaced by UNIFIL established by the UNSC in accordance with the UNSC Resolution 425.[335] After the 1982 occupation, Israel managed to establish a ‘’Security Zone’’ in Southern Lebanon. According to Amery

[329] ‘Armistice Lines (1949-1967)’, accessed 30 January 2025, https://embassies.gov.il/MFA/AboutIsrael/Maps/Pages/1949-1967%20Armistice%20Lines.aspx.
[330] ‘TROUBLED WATERS – PALESTINIANS DENIED FAIR ACCESS TO WATER’, accessed 23 January 2025, https://www.amnesty.org/en/wp-content/uploads/2021/06/mde150272009en.pdf.
[331] ‘Milestones in the History of U.S. Foreign Relations - Office of the Historian’, accessed 29 January 2025, https://history.state.gov/milestones/1961-1968/arab-israeli-war-1967.
[332] ‘PASSIA - MAPS - Special Themes - GROUNDWATER’, accessed 29 January 2025, http://www.passia.org/maps/view/71.
[333] Yael Yishai, ‘Israeli Annexation of East Jerusalem and the Golan Heights: Factors and Processes’, *Middle Eastern Studies* 21, no. 1 (1985): 49–50.
[334] ‘Operation Litani’, IDF, accessed 30 January 2025, https://www.idf.il/en/mini-sites/wars-and-operations/operation-litani/.
[335] UN Security Council (33rd Year: 1978), ‘Resolution 425 (1978) /: Adopted by the Security Council at Its 2074th Meeting, on 19 March 1978.’, 19 March 1978, https://digitallibrary.un.org/record/71622.

(1993 232), the hydro-strategic relevance of Southern Lebanon was not adequately addressed as a reason for the occupation.[336] In an article in the Washington Post dated September 1993, it is claimed, according to a CIA Report, one of the key motivations of Israel in the invasion of Lebanon in 1982 was to take control of the Litani River's water supply.[337]

Henceforth, the de facto or de jure borders can change through armed conflicts and further military operations. The Six-Day War paved the way for Israeli extension of control and dominance. Although Israel does not hold Gaza, Golan, and the South of Lebanon in its entirety; it is seen that military means are applicable. For example, Israel can pursue military operations in the face of perceived terror threats; and thus, control over the land and its resources.

According to Amery (1993 232), some political circles in Israel embrace the vision of a 'Greater Israel', which is essentially a territorial claim that includes the annexed territories along with their vital resources.[338] The two ways of interpreting the Greater Israel vision are Biblical and political. The Biblical version can be traced back to the early Zionists such as Theodore Herzl who envisioned a state that stretched from Egypt to Euphrates.[339] Conversely, it could be suggested that this vision nowadays serves as an instrument for Israeli security interests, one of which is water security. The previous chapter showed the differences between Israeli domestic politics by illustrating the differences between Labor and Likud Parties. Thus, the mentality of the Iron Dome that dominates both parties and the continuous fear of extermination and terror are possible reasons for Greater Israel's vision to become almost an umbrella term. The failure of the peace process between Israel and the Palestinian Authority and the continuation of hostility with Syria and Lebanon paved the way for Israel to take control of the occupied territories and thereby the water resources that came with them.

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[336] Hussein A. Amery, 'The Litani River of Lebanon', *Geographical Review* 83, no. 3 (1993): 232, https://doi.org/10.2307/215726.
[337] JACK ANDERSON et al., 'WATER WARS COULD DROWN MIDEAST PEACE', *Washington Post*, 27 September 1993, https://www.washingtonpost.com/archive/local/1993/09/27/water-wars-could-drown-mideast-peace/294778ff-3581-48ac-b75d-5ac5b658103f/.
[338] Amery, 'The Litani River of Lebanon', 232.
[339] Israel Shahak and Michel Chossudovsky, '"Greater Israel": The Zionist Plan for the Middle East', *Global Research* 11, no. 10 (2019): 3, https://robscholtemuseum.nl/wp-content/uploads/2022/09/Global-Research-Greater-Israel-The-Zionist-Plan-for-the-Middle-East.pdf.

5.2.2. Securitization of Water Scarcity and Challenges for Cooperation

Israel's motivations for securitizing its water scarcity problem; and thereby, its water resources are based on its security ethos. The previous chapter explained the securitization rhetoric with Copenhagen School's Securitization Theory and focused on the Societal Sector. Israeli security ethos is rooted in its existential concerns, specifically regarding its neighbors. There is a fear of extermination due to *identity.* The State of Israel is declared to be Jewish and democratic in nature, whereas, in the Declaration of Independence, the right of self-determination of the Jewish people in their sovereign state is asserted.[340] This means that the security of the state and its people are at constant risk directly and physically due to identity. Thus, the existential threats and the 'us vs them' mentality can be a further driver for conflicts. Securitization of water scarcity eventually becomes a catalyst for two things that hinder cooperation: control over water resources and militarization.

5.2.2.1. Israeli Water Politics in the Eastern Mediterranean from 1990 to 2020

This part will focus on the Israeli practices beginning from the 1990s that reinforce Israel's higher position in the water scenery in the Eastern Mediterranean. Israel has the upper hand in addressing water scarcity problems due to its more advanced technology than the other Eastern Mediterranean countries; however, Israeli dominance goes beyond the technological or smart advances by encompassing political and legal arrangements. The first question that needs to be addressed is what does control mean in this context? In basic terms, control refers to the ability, capacity, and means to regulate and manage transboundary water resources such as the Jordan River or the Mountain Aquifer; thereby, affecting and influencing the neighboring states and the Palestinian territories. In this sense, control over water resources enables the maintaining of the status quo in favor of Israel. Here, the emphasis will be on the representation of securitization in the political and legal domain; therefore, the military side will be excluded.

According to the UN, even the adversary nations can cooperate on water and benefit from the potentiality of spill-over effect as the opposite would likely create both

[340] 'Constitution for Israel', accessed 30 January 2025, https://knesset.gov.il/constitution/ConstMJewishState.htm.

strategically and economically inviable.[341] The UN suggests that cooperation for water management is the way to security and stability, and further states that 'Water more often unites than divides people and societies.'[342] On a theoretical level, this should be accurate. Yet, cooperation falls short or is obstructed by other disputes in the Eastern Mediterranean.

A key document that was mentioned in the earlier chapter was the 1997 Convention on the Law of the Non-Navigational Uses of International Watercourses. The UN defines it as ''the only treaty governing shared freshwater resources that is of universal applicability''.[343] Currently, it is a binding treaty and entered into force on 17 August 2014.[344] Caponera (1985 563) suggests that legal responsibilities addressing water resources under international law shall derive from two sources: principles of the UN or customary principles established by the states that share a water system.[345] Furthermore, Zeitoun and Warner claim that the allocation of water supply and the compromise between riparian states' interests and benefits can be ''based on customary international water law'' or on the definitions of ''equitable and reasonable use'' as defined by the 1997 United Nations Convention on the Non-Navigational Uses of International Watercourses.'[346]

Two facts make this treaty important for the discussion: every Eastern Mediterranean country except Israel has approved or ratified this treaty. Lebanon acceded on 25 May 1999, the Palestinian Authority acceded on 2 January 2015, Syria ratified on 2 April 1998, and Jordan ratified on 2 June 1999.[347] Referring to the second point, Syria made this statement upon ratification:

> The acceptance by the Syrian Arab Republic of this Convention and its ratification by the Government shall not under any circumstances be taken to imply recognition

[341] 'International Decade for Action "Water for Life" 2005-2015. Focus Areas: Water Cooperation', accessed 28 January 2025, https://www.un.org/waterforlifedecade/water_cooperation.shtml.
[342] 'International Decade for Action "Water for Life" 2005-2015. Focus Areas'.
[343] 'International Decade for Action "Water for Life" 2005-2015. Focus Areas'.
[344] 'Convention on the Law of the Non-Navigational Uses Of International Watercourses', accessed 31 January 2025, https://treaties.un.org/doc/Publication/MTDSG/Volume%20II/Chapter%20XXVII/XXVII-12.en.pdf.
[345] Caponera, 'Patterns of Cooperation in International Water Law', 563.
[346] Mark Zeitoun and Jeroen Warner, 'Hydro-Hegemony–a Framework for Analysis of Trans-Boundary Water Conflicts', *Water Policy* 8, no. 5 (2006): 444.
[347] 'Convention on the Law of the Non-Navigational Uses Of International Watercourses'.

> of Israel and shall not lead to its entering into relations therewith that are governed by its provisions.[348]

Following this statement, Israel made an objection on 15 July 1998:

> In view of the Government of the State of Israel such reservation, which is explicitly of a political nature, is incompatible with the purposes and objectives of this Convention and cannot in any way affect whatever obligations are binding upon the Syrian Arab Republic under general international treaty law or under particular conventions. The Government of the State of Israel will, in so far as concerns the substance of the matter, adopt towards the Syrian Arab Republic an attitude of complete reciprocity.[349]

The ideological and political hostility between the two countries was an obstacle to cooperation. It is additionally important that it coincides with the period when Israel was having peace talks with the neighboring countries, in which water was directly or indirectly addressed. Israel mainly had cooperation efforts with the Palestinian Authority and Jordan. Particularly, the 1990s were crucial in determining the water relations between Israel and Palestine and Israel and Jordan. One can point out the Oslo Accords or the Israel-Jordan Peace Treaty of 1994 to explore the current water politics between these countries.

Oslo II Accord, or the Interim Accord, has an article for water allocation and management: Annex III, Article 40: Water and Sewage, which has two important implications; first, dividing the water supply from the aquifers in the West Bank and Gaza between the Palestinian and Israeli sides; and second, establishing a cooperation mechanism for this purpose, which is the Joint Water Committee (JWC).[350] The article is presumed to be controversial and unfair to the Palestinians for several reasons. To begin with, the allocation of the water supply seems significantly in favor of the Israeli side. This indicates that the Palestinian side received approximately one-quarter of what

[348] 'Convention on the Law of the Non-Navigational Uses Of International Watercourses'.
[349] 'Convention on the Law of the Non-Navigational Uses Of International Watercourses'.
[350] 'Israeli-Palestinian Interim Agreement on the West Bank and the Gaza Strip', accessed 31 January 2025, https://content.ecf.org.il/files/M00261_TheIsraeli-PalestinianInterimAgreement-EnglishText.pdf.

was designated for the Israeli side.[351] According to the Interim Agreement, the allocation of aquifers is shown in the following table:

Table 5.1. Allocation of Aquifers between Israel and the Palestinian Authority[352]

	Eastern Aquifer	**North-Eastern Aquifer**	**Western Aquifer**
Israeli Users	40 mcm	103 mcm	340 mcm
Palestinian Users	54 mcm	42 mcm	22 mcm
Remaining	78 mcm	-	-
Total	172 mcm	145 mcm	362 mcm

Source: Israeli-Palestinian Interim Agreement on the West Bank and the Gaza Strip

A second issue was regarding the management of JWC. According to the World Bank (2009), even though the modus operandi of the JWC was based on a consensus of both sides that have the same amount of representatives, it did not work in the intended fashion given that Israel had more of the veto power.[353] Referring to the imbalance of power, the World Bank stated that, ‘’This fundamental asymmetry – of power, of capacity, of information, of interest – in the JWC puts in question its status as a genuinely “joint” institution.’’[354] Another issue was regarding the fact that Israel was taking unilateral action without the consent of the JWC.[355] According to Amnesty International, JWC was perceived to be a successful project as it remained even after the dissolution of the peace process; contrastingly, JWC maintained and empowered the existent system of Israeli dominance over Palestinian resources as the continuation of the occupation.[356]

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[351] ‘Israeli-Palestinian Interim Agreement on the West Bank and the Gaza Strip’, 163; ‘WEST BANK AND GAZA ASSESSMENT OF RESTRICTIONS ON PALESTINIAN WATER SECTOR DEVELOPMENT’, iv, accessed 31 January 2025, https://documents1.worldbank.org/curated/es/775491468139782240/pdf/476570SR0P11511nsReport18Apr2009111.pdf.
[352] ‘Israeli-Palestinian Interim Agreement on the West Bank and the Gaza Strip’, 163.
[353] ‘WEST BANK AND GAZA ASSESSMENT OF RESTRICTIONS ON PALESTINIAN WATER SECTOR DEVELOPMENT’, 51.
[354] ‘WEST BANK AND GAZA ASSESSMENT OF RESTRICTIONS ON PALESTINIAN WATER SECTOR DEVELOPMENT’, 51.
[355] ‘WEST BANK AND GAZA ASSESSMENT OF RESTRICTIONS ON PALESTINIAN WATER SECTOR DEVELOPMENT’, 47.
[356] ‘TROUBLED WATERS – PALESTINIANS DENIED FAIR ACCESS TO WATER’, 33–34.

In contrast, the 1994 Jordan-Israel Bilateral Peace Treaty poses a more positive picture. Article 6: Water, Paragraph 1. States that:

> The Parties agree mutually to recognize the rightful allocations of both of them in Jordan River and Yarmouk River waters and Araba/Arava groundwater in accordance with the agreed acceptable principles, quantities, and quality as set out in Annex II, which shall be fully respected and complied with.[357]

Annex II further details the matters of allocation, storage, quality and protection, and cooperation via the establishment of a Joint Water Committee between two parties.[358] Haddaddin suggests that the crisis between Israel and the Palestinians negatively impacted the relations between Israel and Jordan; nevertheless, the water annex has continued to be implemented by both parties, which was a major factor in preventing a water crisis in the Jordan Valley.[359] Thus, water collaboration between Israel and Jordan was made possible even through the historical conflicts.

The Israeli-Syrian relationship regarding water should not be ignored as well. Even though Syria has never recognized Israel as a sovereign state, towards the end of 1999 there was a possibility of peace talks between two countries. The beginning of peace talks were launched at a summit meeting on 15 December 1999 between President Bill Clinton, Prime Minister Ehud Barak, and Syrian Foreign Minister Farouk al-Shara; however, the intended intensive negotiations in 2000 were suspended and failed to be fruitful for Israeli-Syrian diplomatic relations.[360] As expected, the future situation of the Golan was a serious obstacle between the two parties. While the Syrian side favored the borders to be set prior to the Six-Day War, for Israel this was not the best outcome. Shuval (2000 614) argues that Israeli politicians undoubtedly had security-related

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[357] 'TREATY OF PEACE BETWEEN THE STATE OF ISRAEL AND THE HASHEMITE KINGDOM OF JORDAN', 396, accessed 4 February 2025, https://peacemaker.un.org/sites/default/files/document/files/2024/05/il20jo941026peacetreatyisraeljordan.pdf.

[358] 'TREATY OF PEACE BETWEEN THE STATE OF ISRAEL AND THE HASHEMITE KINGDOM OF JORDAN', 456–59.

[359] Munther J. Haddadin, 'The Jordan River Basin: A Conflict like No Other', in *Water and Post-Conflict Peacebuilding* (Routledge, 2014), 259–61, https://www.taylorfrancis.com/chapters/edit/10.4324/9781849775809-18/jordan-river-basin-conflict-like-munther-haddadin.

[360] 'Israel and Syria Resume Peace Negotiations', www.gov.il, accessed 3 February 2025, https://www.gov.il/en/pages/israel-and-syria-resume-peace-negotiations.

concerns in response to Syria's demands.[361] Retreating from Golan Heights would mean both loss of strategic military advantage and 'water security' due to the vital water sources.[362]

Turning to more recent developments, it could be said that Oslo II is still in force determining the Israeli-Palestinian water relations, Israeli-Jordan water cooperation is still the most promising one with a few disputes, and Syria and Lebanon are still major security concerns for Israel due to political and terror-related reasons.

A recent project is called the *Red Sea-Dead Sea Water Conveyance Project* between Israel, Palestine, and Jordan. The main purpose of the project can be summarised as:

> The project is expected to produce 65 MCM/year of desalinated water for Aqaba (Jordan) and Eilat (Israel) and discharge up to 235 MCM/year of mixed brine and seawater to the Dead Sea. Part of a landmark regional water-sharing initiative between Jordan, the Palestinian Authority and Israel, it aims at producing desalinated water from the Red Sea for selling to Israel and Jordan, while releasing of water by Israel from Lake Tiberias for selling to Jordan.[363]

However, the project came to a halt after 2016 due to 'bureaucratic hurdles, financing difficulties and environmental objections, compounded by Israel's lack of a functioning government for two years' and Jordanian sources stated a lack of interest by Israel.[364] Although, it can be further claimed that the political disagreements in recent times led to this failure. Accordingly, the diplomatic relations between Israel and Jordan deteriorated with the Trump Administration's decision to move the embassy from Tel Aviv to Jerusalem in 2017.[365]

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[361] H. I. Shuval, 'Are the Conflicts Between Israel and Her Neighbors Over the Waters of the Jordan River Basin an Obstacle to Peace? Israel-Syria as a Case Study', in *Environmental Challenges*, ed. Shimshon Belkin (Dordrecht: Springer Netherlands, 2000), 614, https://doi.org/10.1007/978-94-011-4369-1_47.
[362] Shuval, 614.
[363] 'Signature of a Technical Cooperation Agreement between the Hashemite Kingdom of Jordan, the EIB and the Agence Française de Développement', European Investment Bank, accessed 3 February 2025, https://www.eib.org/en/press/all/2016-116-red-sea-dead-sea-project.
[364] ToI Staff, 'After Years of Delays, Jordan Said to Nix Red Sea-Dead Sea Canal with Israel, PA', 17 June 2021, https://www.timesofisrael.com/after-years-of-delays-jordan-said-to-nix-red-sea-dead-sea-canal-with-israel-pa/.
[365] Hassam Hussein, 'Is the Red Sea-Dead Sea Canal Project Still Happening?', Jordan Times, 18 January 2018, https://jordantimes.com/opinion/hussam-hussein/red-sea-dead-sea-canal-project-still-happening.

Turning to Lebanon it can be said the Israeli-Lebanese relations have never been positive. After two years of the Israeli withdrawal from Southern Lebanon, the Wazzani Springs crisis occurred in 2002. Wazzani Springs is a major source of the Hasbani River; and thus, crucial for Israeli water security. The conflict arose due to the construction of a pumping station in the area to supply water to the water-scarce villages close by.[366] Israel claimed that the Lebanese Authorities began the pumping without prior consultation and this could potentially lead to war.[367] Former Prime Minister Ariel Sharon stated that this could be understood as a cause of war, while the head of Mekorot Uri Saguy suggested 'war or forceful confrontation' based on the claim that Israel's water rights and security were being deprived.[368] It is visible that due to Israel's concerns of national security predominantly against Hezbollah, transboundary issues are difficult to cooperate with and easy to turn into conflicts. This development was highly concerning to the point that the UN, the EU, and the U.S. came up with a joint project through the EU's Rapid Reaction Mechanism (RRM) to reduce the tension between Israel and Lebanon.[369] The main principles of the project is defined as:

> The overall objective of the project was to contribute to the reduction of tension between Israel and Lebanon over the sharing of the water resources of the Wazzani springs and the Hasbani river. The project's specific objective was to provide objective information on volumes of water being extracted from the springs and the Hasbani river and to offer a technical overview of the parameters affecting the usage of the water resources of the Hasbani basin.[370]

While the dispute was not resolved completely, it was highlighted that ''concerted international response'' helped prevent a military confrontation.[371]

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[366] Nicholas Blanford, 'Heightened Israeli-Lebanese Tensions Over Jordan's Headwaters', Middle East Report Online, 30 September 2002, https://merip.org/2002/09/heightened-israeli-lebanese-tensions-over-jordans-headwaters/.
[367] Washington Post Foreign Service, 'River Runs Through Mideast Dispute', *Washington Post*, 2 October 2002, https://www.washingtonpost.com/archive/politics/2002/10/02/river-runs-through-mideast-dispute/06342e84-a169-4b30-b098-6a002dc6d4ec/.
[368] Nicholas Blanford, 'Heightened Israeli-Lebanese Tensions Over Jordan's Headwaters'.
[369] 'RRM End of Programme Report – Wazzani Springs Dispute', accessed 21 February 2025, https://www.un.org/unispal/wp-content/uploads/2004/01/6d44261ed50b1a0e85256e51006a826e_Full%20text.pdf.
[370] 'RRM End of Programme Report – Wazzani Springs Dispute', 2.
[371] 'RRM End of Programme Report – Wazzani Springs Dispute', 3.

To conclude this part it can be said that regardless of the outcome of the water management process, it is clear that in the abovementioned treaties, water is consistently mentioned thoroughly highlighting the importance of water resources for Israel although the treaties were originally intended to address the hostile political situation between Israel and Palestine and Israel and Jordan. Subsequently, for Israel, these treaties were an assurance for both state security and stability and water security in the long run. A noteworthy aspect is that the cooperation efforts are clear among Israel, Jordan, and Palestine. However, in regards to Lebanon and Syria, Israel has no direct water cooperation initiatives; rather there is ongoing hostility due to Wazzani Springs and Golan Heights. Both for Syria and Lebanon, the conflictual situation arises from the fact that there is no formal recognition and thereby diplomacy. In light of this extremely strained scenery, politics turn into armed conflicts. The previous and existing conflicts make it impossible for any type of cooperation over water sources and ultimately endanger water security for Israel.

5.2.2.2. Israel's Control over Water Resources

An important concept that is appropriate for the Israeli case is 'hydro-hegemony', a concept that was proposed by Mark Zeitoun and Jeroen Warner.[372] The authors' key claim is that water control, or hydro-hegemony, is not achieved by wars or armed conflicts, but rather sustained through strategy.[373] The authors suggest that regarding the transboundary water resources there could be only two types of interaction, either competition or cooperation, and the relations between these states are defined by a pendulum where competition and cooperation are on the two edges.[374] As the hydro-hegemon establishes the nature of the interaction among the riparian states[375], this could result in ''positive hydro-hegemony'' where each state benefits to a certain extent with the hegemon as the absolute winner[376]; or ''negative hydro-hegemony'' where the hegemon denies the rights of the other states, the allocation of water supply is inequitable, and resource capture is a preferred method.[377]

[372] Zeitoun and Warner, 'Hydro-Hegemony–a Framework for Analysis of Trans-Boundary Water Conflicts'.
[373] Zeitoun and Warner, 436.
[374] Zeitoun and Warner, 443.
[375] Zeitoun and Warner, 452.
[376] Zeitoun and Warner, 437.
[377] Zeitoun and Warner, 439–40.

In this framework, Israeli water politics seem to be suited for this discussion. For example, the emphasis on inequitable water allocation is ideal to explain the Israeli-Palestinian water dispute. It was previously mentioned that the Oslo II divided the water supply coming from the aquifers in an inequitable way. According to Amnesty International, the Coastal Aquifer provides insufficient water for the Gazan population, but Israel prohibits water transfers from the West Bank to Gaza.[378] This is a clear indication of a power asymmetry between the two sides since they do not have the same amount of control over the supposedly shared water resources. Palestinians have been prohibited from obtaining water from the Jordan River since 1967, they are forced to buy water from Mekorot, the Israeli Water company.[379] A reason why Palestinians have to buy water is due to the fact that the current water policy is based on the Oslo II, which was supposed to last only for five years but was still in effect while the population grew rapidly.[380] The average consumption of water a day per person is 247 litres for Israelis and 82.4 litres for Palestinians; thus, the Palestinian quota is lower than the amount recommended by the World Health Organization which is 100 litres.[381] In the West Bank, the ratio of Israeli settlers to Palestinians is 22.8 as of 2021[382]; nevertheless, Israelis utilized ten times as much water as Palestinians in the West Bank in 2020.[383] The power asymmetry shows itself not only in the form of consumption of the water supply but also in generating and protecting it. To give an example, Palestinians are obliged to acquire permission from Israeli authorities before drilling new wells or rehabilitating old ones, which will then be monitored and controlled by Israel.[384]

The second important point is regarding ‘’resource capture’’. Resource capture can occur through ‘’land acquisition, land annexation or the construction of large-scale

[378] ‘TROUBLED WATERS – PALESTINIANS DENIED FAIR ACCESS TO WATER’, 4.
[379] ‘PCBS | The World Water Day; on March 22nd, 2024’, accessed 1 February 2025, https://www.pcbs.gov.ps/post.aspx?lang=en&ItemID=4716.
[380] ‘Parched: Israel’s Policy of Water Deprivation in the West Bank | B’Tselem’, accessed 1 February 2025, http://www.btselem.org/publications/202305_parched.
[381] ‘Parched’.
[382] ‘Number of Settlers in the Settlements and Palestinian Population in the West Bank by Governorate, 2018’, accessed 31 January 2025, https://www.pcbs.gov.ps/Portals/_Rainbow/Documents/SETT4E-2021.html.
[383] ‘Parched’.
[384] ‘TROUBLED WATERS – PALESTINIANS DENIED FAIR ACCESS TO WATER’, 21.

hydraulic works".[385] Considering that the West Bank, Gaza, and Golan Heights were all acquired/annexed after the 1967 war, this statement is a good example of Israeli water politics. While Israel had access to critical aquifers with the Palestinian territories, the Golan is an important source for Hasbani and Jordan Rivers as mentioned. Turning to hydraulic projects, the role of Israeli desalination could be pointed out. In the simplest terms, Israeli capacity to create water supply paves the way for dependency for other countries and populations like the Palestinians that have fewer resources, which then can deepen existing power asymmetries. Another example could be the West Bank Wall or the 'Separation Barrier' is important for water access although not a large-scale hydraulic project. The Wall has been under construction since 2005, following the Second Intifada, and its track falls entirely beyond the 1967 Green Line, entirely on West Bank land. In her article, Julie Trottier (2007) explores the wall's impact on both water resources and local power dynamics.[386] Above all else, she underlines that the barrier or the fence was built with a specific security framework in mind; that is the role of the barrier as a 'reminder' of the fragile and victimized position of the Israeli people due to the Palestinian 'terror' and it was to eradicate the feeling of unsafety.[387] Paradoxically, she claims that the existence of the Wall only maintains the knowledge that the perceived threat is there perpetuating the notion of insecurity.[388] Turning to water access, the Wall has in some cases left Palestinian farmers houses to the East of the barrier, while their wells and irrigation networks to the West, making it difficult for farmers to access water resources and restricting irrigation.[389] Amnesty International further states that the Wall facilitates the appropriation of 'some of the most fertile and water-rich land in the West Bank'.[390] In this case, the hegemon has the power to change hydrology and the political outcomes that come with it through the construction of infrastructure projects.[391]

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[385] Zeitoun and Warner, 'Hydro-Hegemony–a Framework for Analysis of Trans-Boundary Water Conflicts', 444.
[386] Julie Trottier, 'A Wall, Water and Power: The Israeli "Separation Fence"', *Review of International Studies* 33, no. 1 (2007): 105–27.
[387] Trottier, 125.
[388] Trottier, 125.
[389] Trottier, 120.
[390] 'TROUBLED WATERS – PALESTINIANS DENIED FAIR ACCESS TO WATER', 52–53.
[391] Zeitoun and Warner, 'Hydro-Hegemony–a Framework for Analysis of Trans-Boundary Water Conflicts', 445.

In addition to this, securitization is defined as a tactic to reach consolidated control by portraying certain politics and projects as a security issue and further serving its own interests.[392] The Copenhagen School's Securitization Theory is related to a narrative of portraying an issue as a security one. In a similar fashion, securitization can help the hegemon to maintain the status quo in its favor. The Israeli case shows that the security ethos facilitates the normalisation of inequality and structural power asymmetry, which is visible in water politics. As stated in the previous chapter, the water claims of the Palestinian people, as an example, can be perceived as ingenuine rather than a legitimate demand. Therefore, securitization helps physical control over water resources and builds a narrative for the perception of a threat.

The core element of the *hydro-hegemony* is inefficient cooperation mechanisms that ultimately enhance the domination of one actor and power asymmetry. Another useful concept is 'environmental unilateralism' used by Itay Fischhendler, Shlomi Dinar, and David Katz (2011).[393] The authors suggest that this can occur in times of prolonged conflicts where alternative methods might be preferred such as environmental unilateralism where independent interests are pursued instead of collaboration efforts with other partners.[394] In this context, Israel has engaged in this policy concerning water originating from Palestinian sources.[395] It is suggested that unilateral measures can be opted where there are existing conflicts and power asymmetries.[396] Subsequently, transboundary issues may not be resolved properly. Israeli securitization makes Israeli water needs and Israeli water security prioritized over other's needs and security; thereby paving the way for unilateral decision-making. Alternatively, it can be argued that the other's water needs or security are the two factors that endanger Israeli security to begin with.

Within this context, it can be said that Securitization Theory might manifest itself in different forms in practice. Both concepts mentioned above contribute to explaining the

[392]Zeitoun and Warner, 445.
[393] Itay Fischhendler, Shlomi Dinar, and David Katz, 'The Politics of Unilateral Environmentalism: Cooperation and Conflict over Water Management along the Israeli-Palestinian Border', *Global Environmental Politics* 11, no. 1 (2011): 36–61.
[394] Fischhendler, Dinar, and Katz, 37.
[395] Fischhendler, Dinar, and Katz, 41.
[396] Fischhendler, Dinar, and Katz, 55.

Israeli case. Nevertheless, the environmental unilateralism concept is more suited for specific cases whereas hydro-hegemony is optimal for long-term control.

5.2.2.3. Israeli Militarization over Water Resources in the Eastern Mediterranean

Another form of securitization is militarization. It is important to note that using military means as a result of securitization is not an automatic process, but rather a preferred modus operandi. In any case, the securitization process can justify extraordinary measures. According to the Copenhagen School, ''In security discourse, an issue is dramatized and presented as an issue of supreme priority; thus, by labeling it as *security,* an agent claims a need for and a right to treat it by extraordinary means.''[397] It can be argued that when the perceived threat is related to identity, military measures might seem necessary for survival. Therefore, this part will exclusively focus on the military practices that are rooted in and justified under the securitization process.

The Israeli security discourse claims that the hostility of neighbors is permanent where there is always a risk for extermination. This simple logic paves the way for the prioritization of military institutions as the main pillars of the survival of the society, nation, and thereby the state. If the threat is against the Jewish people, and the State of Israel defines itself to be Jewish in nature, then the survival of the state is connected to the survival of its people. This is why militarization is an important step for securitization in Israel.

In Israel, it is seen that especially the threat of terrorism, mainly due to Hamas, is the major reason behind the militarization. Therefore, militarization is observable predominantly in the Palestinian territories. The Israeli army maintains control via military legal orders, military interference, and military occupation.

To begin with, one can observe the outcomes of the Oslo II Agreement once again. The Interim Agreement divided the West Bank into three zones: Area A, Area B, and Area C. Areas A and B have 95% of the Palestinian population while covering 40% of the West Bank; on the other hand, Area C is mostly inaccessible to the Palestinians.[398] The Palestinians in the West Bank are subject to Israeli Military Law while the Israeli

[397] Buzan, Waever, and Wilde, *Security*, 26.
[398] 'TROUBLED WATERS – PALESTINIANS DENIED FAIR ACCESS TO WATER', 22.

settlers are subject to Civilian Law.[399] The importance of this is due to some of the Israeli Military Orders that hinder Palestinian water access and infrastructure. Amnesty International underlines that these military orders were issued following the Six-Day War in 1967, accordingly;

> Military Order 92, issued on 15 August 1967, granted complete authority over all water-related issues in the OPT to the Israeli army,
>
> Military Order 158 of 19 November 1967 stipulated that Palestinians could not construct any new water installation without first obtaining a permit from the Israeli army and that any water installation or resource built without a permit would be confiscated,
>
> Military Order 291 of 19 December 1968 annulled all land and water-related arrangements which existed prior to Israel's occupation of the West Bank.[400]

These illustrate that the Israeli military has control over water sources in the West Bank. Since most areas in the West Bank are ''closed military areas'', the Palestinian right to access water has been denied; moreover, the Israeli army is engaging in the destruction of simple water infrastructures such as rainwater harvesting cisterns.[401] According to Amnesty International, ''The military orders imposed and maintained by Israel create substantial barriers to the availability and accessibility of water for the Palestinian population and are applied in a discriminatory manner between Israeli settlers and the Palestinians living in particular areas.''[402]

In addition, military operations and blockades damage water infrastructures and limit water access. For example, subsequent to Hamas's seizure of Gaza in June 2007, Israel instituted a blockade of the Gaza Strip. Considering Gaza's extreme dependency on international aid, the outcomes were appalling. The UN states that:

> Due to the closure of Gaza's border crossings, equipment and supplies needed for the construction and maintenance of water and sanitation facilities have been denied entry, which has resulted in the freezing of a number of projects to repair, rehabilitate

[399] 'TROUBLED WATERS – PALESTINIANS DENIED FAIR ACCESS TO WATER', 22.
[400] 'TROUBLED WATERS – PALESTINIANS DENIED FAIR ACCESS TO WATER', 15.
[401] 'TROUBLED WATERS – PALESTINIANS DENIED FAIR ACCESS TO WATER', 40–41.
[402] 'TROUBLED WATERS – PALESTINIANS DENIED FAIR ACCESS TO WATER', 95.

> and upgrade existing infrastructure, including water and sewerage networks and waste-water treatment plants…Even for those connected to the water network, frequent power outages mean that water is unable to be pumped to buildings and taps run dry: access to adequate quantities of safe water for both drinking and personal and domestic uses has been severely restricted for many people…[403]

The Blockade was followed by a military operation, for which Amnesty International states:

> Israel's recent military offensive in Gaza, operation 'Cast Lead', lasted from 27 December 2008 to 18 January 2009. During these 22 days, Israeli attacks caused some US$6 million worth of damage to Gaza's water supply and sewage and wastewater facilities and infrastructure. In northern Gaza, three water facilities were destroyed and the emergency sewage treatment plant was damaged, as well as water distribution networks.[404]

Indeed, there have been many military operations by Israel in Gaza. One of them, Operation Protective Edge was launched by the IDF on 8 July 2014 in order to 'bring security' to Southern Israel upon rocket attacks by Hamas.[405] OCHA states that:

> According to an initial Damage Assessment Report (DAR) by the Coastal Municipalities Water Utility (CMWU), 12 per cent of Gaza's wells have been destroyed or damaged during Israeli bombardments, particularly in Gaza City, Beit Hanoun and Deir Al Balah municipalities. Additionally, over 33,000 meters of water and wastewater networks were recorded as damaged: around half located in Khan Yunis, followed by Gaza Municipality.[406]

As seen above, most of the water-related conflict is a result of the Israel-Palestine conflict. In order to give a broader perspective, the Pacific Institute's study on the Water

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[403] 'Impact of the Blockade on Water and Sanitation in Gaza - WASH Advocacy Task Force - Fact Sheet 1', *Question of Palestine* (blog), accessed 5 February 2025, https://www.un.org/unispal/document/auto-insert-207194/.
[404] 'TROUBLED WATERS – PALESTINIANS DENIED FAIR ACCESS TO WATER', 65.
[405] '8.7-26.8.2014 Operation Protective Edge', IDF, accessed 5 February 2025, https://www.idf.il/en/mini-sites/wars-and-operations/operation-protective-edge/operation-protective-edge/.
[406] 'Humanitarian Bulletin Monthly REPORT June - August 2014', 25, accessed 5 February 2025, https://www.ochaopt.org/sites/default/files/ocha_opt_the_humanitarian_monitor_2014_10_03_english.pdf.

Conflict Chronology will be provided, in which water-related conflicts are classified based on countries, dates, and conflict types. Accordingly,

1. Between the years 2000 and 2020, Israel engaged in 22 conflicts with neighboring countries or non-state actors and in the occupied territories where water played an important role,

2. 21 of these conflicts were between Israel and Palestine, whereas only 1 was between Israel and Lebanon,

3. In 5 of the conflicts (Israel and Palestine), water was a weapon of conflict, in 2 of the conflicts water was the triggering force, and in 15 of the conflicts a water source or infrastructure was the causality of the conflict.[407]

5.2.2.4. Condemnation of Israel by the International Community

The international community has condemned Israel regarding its water politics. To put it simply, the most striking examples of illegitimate practices could be the destruction of water infrastructure and the denial of access to water. This is predominantly the case in Israel and Palestine. Therefore, the Oslo Accords led to the institutionalisation of the prevention of the right to water and sanitation.[408] Accordingly, Israel is prohibiting General Comment No. 15: Right to Water adopted by the UN in 2002:

> It is clear that discrimination in availability of and access to water rises to a violation of the right to water, and in particular the requirements outlined in General Comment No. 15 'to adopt or implement a water policy designed to ensure the right to water for everyone;' to avoid 'insufficient expenditure or misallocation of public resources which results in the non-enjoyment of the right to water by individuals or groups, particularly the vulnerable or marginalized;' and the requirement 'to take measures to reduce the inequitable distribution of water facilities and services' and 'to ensure that the minimum essential level of the right is enjoyed by everyone.'[409]

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[407] 'Water Conflict Chronology Timeline List', accessed 5 February 2025, https://www.worldwater.org/conflict/list/.
[408] 'Israel's Violations of Human Rights Regarding Water and Sanitation in the OPT - Report by Al-Haq and EWASH to CESCR - Non-Un Document', *Question of Palestine* (blog), accessed 8 February 2025, https://www.un.org/unispal/document/auto-insert-195880/.
[409] 'Israel's Violations of Human Rights Regarding Water and Sanitation in the OPT - Report by Al-Haq and EWASH to CESCR - Non-Un Document'.

The important point is that Israel is accused of using water as a weapon of war or a tool for collective punishment. For example, the blockade on Gaza was in fact an interference with water access. For Israel, the purpose was to eliminate the threat of Hamas yet in the end the whole population was denied a basic human right.

Condemnation is not only on water rights being based in a discriminatory manner but also on the exploitation of natural resources of the occupied lands. To give an example, UN General Assembly Res. 66/225 specifically is about the rights of the people in Palestinian territories and Golan Heights over their natural resources. Accordingly, it is stated:

> …Expressing its concern about the widespread destruction caused by Israel, the occupying Power, to vital infrastructure, including water pipelines and sewage networks, in the Occupied Palestinian Territory, in particular in the Gaza Strip in the recent period, which, inter alia, pollutes the environment and negatively affects the water supply and other natural resources of the Palestinian people…[410]

Therefore, Israeli military control over the water sources has been condemned as a violation of international law and human rights.

A recent example can be given from the ongoing war in order to provide a profound analysis. According to Oxfam, Israel systemically and deliberately destroys the water facilities, reducing the available water in Gaza by 94%.[411] This fact was additionally recognized by the ICJ on 26 January 2024.[412]

5.2.2.5. Securitization, Desecuritization, and Cooperation

It is shown that Israel either does not have or has limited cooperative relations with most of its Eastern Mediterranean neighbors. While extraordinary measures such as militarization or weaponization of water create more insecurity for Israel, the narrative

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[410] 'A/RES/66/225', accessed 8 February 2025, https://documents.un.org/doc/undoc/gen/n11/472/32/pdf/n1147232.pdf.
[411] 'Israel Using Water as Weapon of War as Gaza Supply Plummets by 94%, Creating Deadly Health Catastrophe: Oxfam', Oxfam International, 27 November 2024, https://www.oxfam.org/en/press-releases/israel-using-water-weapon-war-gaza-supply-plummets-94-creating-deadly-health.
[412] 'Summary of the Order of 26 January 2024 | INTERNATIONAL COURT OF JUSTICE', accessed 21 February 2025, https://www.icj-cij.org/node/203454.

can additionally affect the legitimacy of the attempted cooperation. Thus, this part will focus on how securitization hinders cooperation between Israel with its neighbors.

The Israeli case shows that securitization fosters hydro-hegemony and unilateralism. In this context, militarization seems to be the ideal method in order to maintain the status quo. Namely, the Israeli army is ready for conflicts and war. While the outbreak of a large-scale or total war due to water scarcity is unlikely, disputes and armed conflicts are very present in the region. It is seen that although the reason for the conflicts may not be primarily and directly water-related, scarcity of water in the region makes water a strategic tool in conflicts. The above examples show that military operations such as the case of the Litani River conflict or annexation of Golan Heights can be useful to prove this point. In addition, one can point out the military law Israel forced upon the Palestinian population in the West Bank. Militarization derives from the zero-sum rhetoric caused by the securitization process for maintaining the water security and interests of the state. Another point could be about how the *narrative* affects cooperation. That is, if the root cause of securitization originates from an *us versus them* feeling, then a governmental attempt to formally initiate cooperation over water scarcity could be subject to suspicion and opposition by the public and the parliament. Paradoxically, one actor skipping diplomacy and opting for a military modus operandi in the region is expected to cause further insecurity.

Therefore, it is plausible that securitization does not automatically create a situation, in which the perceived threats are eliminated. In order to prevent water-related conflicts, collaborative mechanisms should be opted for. It can be further stated that securitization might be an obstacle to this end. This notion is embraced by Israeli authorities as well. In the report *Israel: A Global Leader in Water Management and Technology,* it is stated:

> Natural water resources, which transcend political boundaries, can be managed in a cooperative, sustainable manner to maximize the prosperity of all players in the region; collaboration on water issues can truly serve as a bridge for peace in the Middle East.[413]

[413] 'Israel: A Global Leader in Water Management and Technology', 23.

In this context, if securitization is the process of framing an issue as a security problem, *desecuritization* is the reserve process. The Copenhagen School defines the concept as such:

> At best, security is a kind of stabilization of conflictual or threatening relations, often through emergency mobilization of the state. Although security in international relations may generally be better than insecurity (threats against which no adequate countermeasures are available), a secure relationship still contains serious conflicts—albeit ones against which some effective countermeasures have been taken. It is better, as Wæver argues, to aim for desecuritization: the shifting of issues out of emergency mode and into the normal bargaining processes of the political sphere.[414]

The important point is that the abandoning of extraordinary measures such as military operations, violence that is prohibited by international law, or weaponization of water is not the guarantee of instant and automatic cooperation. Security and insecurity are not opposite of each other; rather, desecuritization is the process of turning a securitized issue into an unsecuritized one.[415] Coskun (2009 101) claims that desecuritization paves the way for the reinterpretation of the perceived threat; and thereby; encourages trust and facilitates conflict resolution. [416] Indeed, the author claims that water management creates a 'window of opportunity' among adversaries for cooperation.[417] For example, the UN states that, ''One clear message from the record is that even the most hostile enemies have a capacity for cooperation on water.''[418] Another view is that the zero-sum mentality created by the securitization process can be overcome through

[414] Buzan, Waever, and Wilde, *Security*, 4; Ole Wæver, *Securitization and Desecuritization*, vol. 5 (Centre for Peace and Conflict Research Copenhagen, 1993), https://www.libraryofsocialscience.com/assets/pdf/Waever-Securitization.pdf.
[415] Bezen Balamir Coskun, 'Cooperation over Water Resources as a Tool for Desecuritisation: The Israeli – Palestinian Environmental NGOs as Desecuritising Actor', *European Journal of Economic and Political Studies* 2, no. 2 (2009): 101.
[416] Coskun, 101.
[417] Bezen Balamir Coskun, 'Cooperation over Water Resources as a Tool for Desecuritisation: The Israeli – Palestinian Environmental NGOs as Desecuritising Actor', n.d., 103.
[418] 'International Decade for Action "Water for Life" 2005-2015. Focus Areas'.

desecuritization, where water management would create the possibility of a ‘’win-win’’ situation with possible spill-over effects into other domains.[419]

Two examples are striking: the first is the role of desalination; and the second, Israeli-Jordanian water cooperation. In the first one, desalination is conceptualized as a way of reducing the zero-sum mentality as it creates a source of water supply for Israel.[420] However, while desalination creates the chance for Israel to trade with neighboring countries, there is a difference between the degree of cooperation between Jordan and the Palestinian Authority, as the cooperation with the latter is quite limited due to ‘’the larger Israeli–Palestinian conflict and the issue of access to water rights’’.[421] As for the Israeli-Jordanian water cooperation, although the potential risk of water wars in the region was frequently speculated, cooperation on water-related issues has been prioritized in the peace talks and has been generally on the positive side.[422] Historical disputes were crucial in shaping the security concerns; namely, while for Israel the Arab question is always present, Jordan had concerns for Israel’s territorial claims in the context of ‘‘Greater Israel’’ and regarding the ‘’Jordan Option’’ that is Jordan becoming the base for Palestinians.[423] Regardless, the Israeli-Jordanian cooperation can be the only one in the Eastern Mediterranean that is fruitful. Walschot suggests that the Red Sea-Dead Sea Canal Project constitutes a desecuritized initiative.[424]

Henceforth, it can be said that even though securitization and desecuritization do not automatically create the conditions for conflict or cooperation, they can be factors in determining the relationship between riparian countries and general water politics. In Israel, securitization appears to be not the suitable method when it comes to water politics as it causes more hostility in the region.

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[419] Maureen Walschot, ‘Desalination, Transboundary Water Desecuritization and Cooperation’, *Desalination and Water Treatment* 104 (2018): 42; Anthony R. Turton, ‘The Hydropolitical Dynamics of Cooperation in Southern Africa: A Strategic Perspective on Institutional Development in International River Basins’, *Transboundary Rivers, Sovereignty and Development: Hydropolitical Drivers in the Okavango River Basin*, 2003, 41.

[420] Alon Tal, ‘The Evolution of Israeli Water Management: The Elusive Search for Environmental Security’, in *Water Security in the Middle East*, ed. Jean Axelrad Cahan, Essays in Scientific and Social Cooperation (Anthem Press, 2017), 139, https://www.jstor.org/stable/j.ctt1jktqmk.11; Walschot, ‘Desalination, Transboundary Water Desecuritization and Cooperation’, 43.

[421] Walschot, ‘Desalination, Transboundary Water Desecuritization and Cooperation’, 43.

[422] Farooq Mitha, ‘The Jordanian-Israeli Relationship: The Reality of‘‘Cooperation’’’, *Middle East Policy* 17, no. 2 (2010): 115, https://doi.org/10.1111/j.1475-4967.2010.00442.x.

[423] Mitha, 119.

[424] Walschot, ‘Desalination, Transboundary Water Desecuritization and Cooperation’, 43.

5.3. Conclusion

It appears that Israel engages in collaborative water relations on a global level. Ultimately this is beneficial for Israel's image and its position as a ''leader'' in water technology and water management. Nevertheless, the same positive approach is not visible when it comes to regional dynamics. It is argued that this is mainly due to the securitization process, which affects the narrative that is engraved in the public mind and leads to militarization. It is suggested that wars and conflicts have had water-related consequences for Israel, the Six-Day War being the most influential one allowing Israel to occupy the West Bank, Gaza, and the Golan Heights, which are home to major water sources. Israeli control over these water sources is conceptualized, in light of Securitization Theory, with two concepts: hydro hegemony and environmental unilateralism. Both concepts are major obstacles to cooperation.

Conclusion

This thesis aimed to explain the relationship between water scarcity and national security with Israel as the case study.

In order to do so, first, the role of water scarcity in Israel and the wider Eastern Mediterranean was explained. The first chapter of the thesis focused on the technical part of water scarcity in Israel and the Eastern Mediterranean, while the second chapter aimed to give a general picture regarding the relationship between water scarcity and national security, to show the international debate on water security and resource competition. It is explained that the region is characterized by a transboundary water system. The main transboundary water source is the Jordan River, which is shared by Israel, Jordan, Lebanon, Syria, and Palestinian territories. Its tributary, the Yarmouk River, is shared between Israel, Lebanon, Jordan, and Syria. The Sea of Galilee is predominantly in Israel. The main groundwater sources in Israel are the Mountain Aquifer, Coastal Aquifer, and Western Aquifer, which are all shared with Palestinian territories. In this transboundary system, the region suffers from high water stress; that is low availability of natural water sources. This refers to inadequate surface and groundwater together with low precipitation. By simple logic, water scarcity is the result of an imbalance of demand and supply. Human factors such as population growth and urbanization are aggravating factors. The main water strategy of Israel has been to utilize the existing natural sources to the utmost; however, extreme dependence on the natural water sources has been putting Israel in a highly vulnerable position. This is why Israel has invested in high-water technologies such as desalination, wastewater recycling, and drip irrigation in order to create the water supply. Specifically, desalination has been the main water supply for Israel. Currently, there are five desalination facilities: Ashkelon, Palmachim, Hadera, Sorek, and Ashdod; which were all constructed in the last two decades. The contrast between Israel and the other Eastern Mediterranean countries is remarkable in this sense. Israel is at the forefront of water management and water technology compared to others in the region. However, an important point is made regarding how climate change affects the region's water sources. In other words, climate change results in lower precipitation and a decrease in the rainfall in the Jordan River and its tributaries. It diminishes groundwater availability,

which is detrimental due to the fact that Israel already exploits the aquifers. Additionally, it reduces the quantity and quality of the Mediterranean Sea, which Israel is dependent on for desalination technology. Thus, climate change furthers water scarcity, possible pollution in the water sources, and water-related diseases.

In this context, the water scarcity in Israel and the wider Eastern Mediterranean was not addressed as a predestined situation. Rather, it is proposed that climate change acts as an accelerator or a catalyst. This thesis tried to portray the water scarcity issue as a transboundary security problem, which is only worsened by climate change. It is explained that after the Cold War, the security debate began to broaden by including more topics in itself. With the rise of new threats that occurred with globalization and multi-polarization after the Cold War, the focus shifted to transboundary security threats that foster cooperation or conflict. For example, the growing environmental consciousness paved the way for environmental-related security discussions. Climate change is outstanding for these discussions. With the broadening of the security debate, the environment and/or its components can not only be security issues on their own i.e. the security of the planet but also could be sources of insecurity for states as well. As per water scarcity, climate change is expected to bring resource competition between states; thereby, causing interstate conflicts. There is no guarantee for water availability and the situation is getting more unpredictable due to climate change. The debate on resource competition is of high importance in light of climate change. As water becomes significantly scarce, it would eventually lead to disputes between the nations causing further regional tensions. Because in the dry regions of the world that already suffer water scarcity, the worsened situation might result in armed conflicts or even total wars over water resources. Thus, water scarcity can affect national security.

The third and the fourth chapters focused on security and security-related politics in Israel, by showing the contrast between theory and practice. In other words, the rationale behind water scarcity and national security was explained to move on with the water politics of Israel.

To begin with, it is claimed that Israel recognized water as a critical component for stability and progress; therefore, began to securitize water in the pre-state period. This was mostly made possible with the efforts of the early Zionists who formed the

relationship between water, agriculture, and national-building. Water has been a symbol for the Zionist movement and the early settlers in their aim of nation-building. Water has been designated as a valuable resource to transform the arid landscape into a productive and self-sustainable one. This was done not only in an attempt to form the foundation of a strong nation; but also to mark the differences between the Israelis and their neighbors. In this context, Israeli national security ethos, which has been pretty linear since the times of David Ben-Gurion, is rooted in the logic of the Iron Dome policy and fear of extermination and terror. From the times of the Yihuv, Israeli settlers had been afraid of the possibility that their new neighbors were to annihilate them. This fear is much integrated into the cognitive mind of the Israeli people given the history of Jewish people regarding numerous exiles, prosecutions, and the Holocaust. Thus, Israeli national security rhetoric is still influenced by the earlier times. Here, it is important to emphasize how perception plays an important role in shaping national security discourses. Copenhagen School's Securitization Theory explains how an issue can be reflected as a security threat and put on the security agenda. The theory emphasizes the *construction* of the perceived threat; that is the threat is urgent and existential. There are sectors of the theory that are concerned with different referent objects: political, military, economic, societal, and environmental. This thesis focused on the Societal Security Complex to explain the case of Israel. In the Societal Security Complex, a group or a society that is bound by an identity is facing an existential threat due to their given identity. The securitization process involves *speech acts*, which are securitizing moves done by the securitizing agents regarding the referent object. This thesis showed several speech acts by Israeli government officials on water scarcity being an existential threat to Israel and the Israeli people. Not only through speech, but this thesis additionally focused on certain TV campaigns that could be classified as examples of speech acts since they facilitated *hydro-hysteria*. One limitation highlighted is the fact that Securitization Theory asserts that in order for securitization to succeed a constant emergency mode is needed. Yet, in Israel security is routinized thanks to the national security discourse but the country is not in an emergency mode. The Zionist narrative that dominates the Israeli national security discourse constitutes the basis of the existential lens of the securitization of water.

In the last chapter, the security theory and practices in order to show the different water politics Israel follows at different levels were explored. Namely, the differences between the international and regional levels. On the international level, Israel has a cooperative approach to water politics with various countries in the world such as the U.S., European countries, India, and Kenya. Israel shares know-how and uses water diplomacy to increase its credibility and as an instrument of soft power. Moreover, Israel is a party in many environmental-related international treaties along with international water goals such as SDG 6. This shows the Israeli adherence to international norms. It can be argued that if principles designed by international treaties evolve into widely accepted norms and standards, then they might subsequently be adapted into regional contexts as well. Thus, international principles are expected to influence or be a model for regional frameworks. Yet due to the specific characteristics of each region, these principles might be more difficult to follow. Therefore, highlighting the differences between the international and regional contexts is important to understand the role of specific political dynamics in cooperation and conflict.

However, on the regional level, there is a completely diverse picture. For example, while the relationship between Israel and Jordan constitutes more of a positive example, the situation with Lebanon and Syria is hostile due to almost non-existent diplomatic relations. On the other hand, the Israeli-Palestinian conflict makes it quite difficult for water cooperation between the two parties. Although efforts and interests exist for water management in Israel, due to the securitization rhetoric it is difficult to establish effective institutions and regulatory mechanisms that could be a model. Therefore, water scarcity is not a sole and independent factor for lack of cooperation, but rather the existing security concerns and enmity are exacerbating factors. First, it is explained that Israel's territorial claims following the 1967 War (West Bank and Gaza, the Golan Heights, and Southern Lebanon) are home to critical water sources. Even if these occupied territories are not under the sovereignty of Israel, still Israel deploys military means to maintain control. Henceforth, this thesis argues that the reason for this negative relationship over water in the region is due to the securitization theory and related practices. It is further argued that securitization of water scarcity eventually becomes a catalyst for two things that hinder cooperation: control over water resources and militarization. In order to better explain this part, two concepts were introduced:

hydro-hegemony and environmental unilateralism. Hydro-hegemony refers to a state that is in the position of a hegemon due to its control over transboundary water resources. In this context, Israel is engaged in what is referred to as the negative hegemony. That is Israel is denying the water rights of others in the region such as the Palestinians. Negative hegemony is characterized by inequitable water allocation, power asymmetry, land capture, and inefficient cooperation mechanisms. This thesis aimed to prove this point by showing various examples of the region. For example, according to Oslo II, the ratio of the water allocation of aquifers between the Palestinians in the West Bank and the Israelis is ¼, in favor of Israel. Moreover, when Israel occupied the Golan and the West Bank, they not only occupied the land but also its resources. In addition, the Palestinian people in the West Bank are imposed by Israeli Military Law, where they have to ask for permission from the Israeli authorities if they want to dig wells or access water whereas the Israeli settlers are subject to Israeli Civil Law. Alternatively, the military operations in Gaza that damage the water infrastructure can be given as examples. This indicates a clear power asymmetry between the two parties. Moreover, when observing the Joint Water Committee between Israel and Palestine as well as Israel and Jordan, it seems like Israel has stronger veto power. On the other hand, environmental unilateralism is applicable in cases of prolonged conflicts such as the Israeli-Arab conflict and power asymmetries, when unilateral decision-making is preferred over multilateralism.

Therefore, this thesis argues that instead of securitization; desecuritization, which is the reverse process, could be opted for fruitful cooperation in the region. Both of these processes do not automatically lead to cooperation or conflict, but it is seen that Israeli securitization of water causes further insecurity in Israel. In this sense, desecuritization may encourage dialogue instead of armed conflicts.

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