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Water Politics in the Israeli-Palestinian Conflict: A Path Forward?

A Capstone Project Submitted in Partial Fulfillment of the Requirements for the Renée Crown University Honors Program at Syracuse University

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and Renée Crown University Honors
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Honors Capstone Project in Political Science

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Abstract

Hope for an imminent two-state solution to the Israeli-Palestinian conflict is at an extreme low. The failure to reach a comprehensive peace agreement has precluded progress on cooperative water management. A new agreement on water could benefit both sides and help protect important water resources from environmental degradation, yet no talks have occurred outside of more difficult comprehensive negotiations. This has resulted in a humanitarian disaster in the Gaza Strip, lower quantities of quality drinking water for all Palestinians, and impediments in economic development. This paper argues through literature review and polling data that a new approach for negotiations is needed. Then, through interviews with experts, this paper recommends that starting a new round of negotiations with a separate track on water that is not contingent upon a final status agreement could be a path forward. Such an agreement could improve the lives of citizens on the ground, while simultaneously serving as a trust-building step between the two sides.
Executive Summary

The outlook in solving the Israeli-Palestinian conflict seems to be at a turning point. Surrounding the latest round of negotiations, led by Secretary of State John Kerry, was a palpable sense that this could be the last chance for success of two-state negotiations led by the United States. The negotiations failed without so much as a framework agreement, and neither government currently seems interested in returning to negotiations. The challenge to the international community now lies in finding alternative methods to attempt to find a solution to the conflict, as well as bettering the lives of citizens on the ground.

In the context of the breakdown of hope in the two-state solution, the issue of water has been neglected. Water is an issue that, relative to other issues such as borders, settlements, and refugees, is de-politicized and does not elicit emotional responses from either side. However, there is a sense that progress on the water issue has been held hostage by a failure to make progress in the overall peace negotiations. The result is a decrease in living standards and economic opportunity for Palestinians, especially in the Gaza Strip.

Water is an area where Israelis and Palestinians have been able to cooperate, at least at a minimum level. Following an interim agreement on water in 1995, as part of the Oslo II stages of negotiations, a set of institutions were created to increase cooperation on water resources between Israel and the Palestinian Authority. The agreement allocated water rights from the Mountain Aquifer, which lies primarily in the West Bank. 79% of the water was allocated to Israel and 21% of the water was allocated to the Palestinians. The agreement did not cover other water resources. This temporary agreement was supposed to last for 5 years and be renegotiated as part of final status negotiations, but has not been revisited since this
time. The most important of the institutions is the Joint Water Committee. The JWC is a committee that is comprised of an equal amount of Palestinians and Israelis. It has to approve all new water projects in the West Bank, with the inherent idea that both sides will have veto power over each other’s proposed water projects. As a result, it hoped to force the two sides into cooperation on water projects.

While the JWC sounds like an equitable institution, there are complications in the fact that it only has jurisdiction on water from the Mountain Aquifer in Palestinian territory. The Mountain Aquifer is the only source of water for the Palestinians, yet is only important for Israelis in supplying water to settlements in the West Bank. The bulk of Israeli domestic water needs are supplied from different sources. In addition, the Palestinian Authority needs additional permits from the Israeli Civil Administration (a military government administration) for water projects in Area C of the West Bank. Area C is the area of the West Bank which is under full Israeli military control as stipulated by the Oslo Agreement, which was agreed to by the two sides in 1993.

While the set of water institutions has functioned, at least partially, cooperation on the committee broke down in 2010. Palestinian members of the JWC complained that Israeli members tied any approval of Palestinian projects to the successful approval of water projects for Israeli settlements in the West Bank. The Palestinians view these settlements as illegal and a major obstacle to peace. The Palestinian frustration caused by this tactic was compounded by widespread difficulties and delays in obtaining any sort of permit for water projects over a long period of time. The JWC has not convened since 2010.

The results are a water shortage for many Palestinians. Citizens of the West Bank consume water at a lower rate than Israelis, as well as Israeli settlers in the West Bank. They
also face limited access to piped water, especially during the summer months, when prolonged periods of no access to water from pipes are common. In the Gaza Strip, the situation is more serious. The coastal aquifer, the one fresh water resource available, is at a high susceptibility for pollution by salinity due to its proximity to the coast. The natural potential for pollution is exacerbated by over-pumping and ineffective governance by the Hamas government ruling in Gaza, as well as by damage to water infrastructure as a result of Israeli-Hamas wars. 90-95% of water in Gaza is currently deemed unfit for consumption by World Health Organization standards, and the aquifer is projected to be completely unfit for consumption as early as 2016. Israel pumps water into the Gaza Strip in order to ease the humanitarian crisis.

Israel, meanwhile, complains of illegal, un-permitted Palestinian drilling into water resources, which could pollute key water sources. They also maintain that they follow all voluntarily signed agreements between the two sides. There are also complaints about the failure of the Palestinian Authority to govern their water effectively, including leaky pipes and a failure to treat wastewater effectively. In addition, Israelis point to the improvement in water consumption for Palestinians since 1967, the year when Israelis gained control of water resources in the West Bank, and to their efforts in training the Palestinian Authority on managing water systems.

The breakdown of cooperation between the Palestinian Authority and Israel is best symbolized by the failure to supply the Palestinian city of Rawabi with water. Rawabi is the first planned city in the West Bank, an initiative of Palestinian-American businessman Bashar al-Masri. The city was designed to be a symbol of Palestinian ability to develop a functioning economy, and was purposely designed to not be a symbol of resistance against
Israelis. Many prominent Israeli politicians, including President Reuven Rivlin and Defense Minister Moshe Ya’alon, agreed that providing water to the city was in Israel’s interest. However, the city failed to gain water access for over a year after residents were supposed to start moving in, to the detriment of the Palestinian economy. The final approval for water access required the direct action of Prime Minister Benjamin Netanyahu.

In this paper, after displaying the need for water reform, I then argue that prospects for a two-state solution have broken down due to a variety of factors. These include the increasing prevalence of Israeli settlement construction, the continued difficulty of dealing with a Palestinian government in which two competing parties have control over different geographical areas, and the re-election of the Israeli Prime Minister Benjamin Netanyahu.

Given the great need for a new water deal, as well as the lack of any prospects of obtaining a peace solution, I argue that negotiators should look into water negotiations for two reasons. The first is the obvious need for increased water access for Palestinians. The situation is most dire in Gaza. The inability of citizens to access water, exacerbated by the Israeli-Hamas war of summer 2014, threatens to develop into a humanitarian disaster. Reaching a deal on water would also help to ensure the long-term vitality of important water resources. The coastal aquifer in Gaza could incur irreversible damage by 2020 if current over-pumping is not remedied. In the West Bank, illegal drilling by Palestinians and over pumping of the Mountain Aquifer threatens to damage the water quality of the aquifer, which would affect both Israelis and Palestinians.

In determining the best manner of obtaining a new water deal, I originally hoped to conclude that a new deal could be reached by stand-alone negotiations on solely water. However, in interviewing experts on the topic, it became clear that the current political
situation is not conducive in holding a water summit between the governments. Instead, this paper advocates a two-pronged approach.

The first step is a set of temporary measures to ease the humanitarian disaster in the Gaza Strip. This includes Israel allowing construction materials to enter Gaza to repair infrastructure, as well as to build massive desalination plants. Israel will also need to ensure a consistent electricity supply in order to operate wastewater treatment and desalination plants. The second step will require a fundamental shift in the political situation. When, if at all, there again comes a time when the international community leads two-state negotiations between two parties that are committed to reaching an agreement, I argue that the negotiations should be structured differently. At the beginning of negotiations, a separate discussion track should be established that focuses solely on water. This would be held simultaneously as the classic two-state, final agreement negotiation track. A new water deal should be focused on expanding cooperation on water resources to all sources that are available to Israelis and Palestinians, not just ones that are important to Palestinians. This will prevent Israelis from forcing Palestinians to recognize settlements in order to access water for their citizens, as well as create conditions that will increase mutually beneficial environmental cooperation. The implementation of a new water agreement should not be contingent upon a final status agreement.

In the end, although this is not the ideal method of obtaining an agreement, the political situation requires creative solutions. A new water agreement could have a positive effect on the lives of citizens of both sides, mostly Palestinians. In addition, a new water agreement could potentially serve as a trust building exercise between the two sides, and spur both sides to cooperate on the larger, more difficult political issues.
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Introduction

The latest round of American-led negotiations to reach a two-state solution have once again failed. This failure to reach a secure agreement follows similar failures in 2000 at Camp David, the Road Map negotiations under President Bush culminating in the Annapolis conference of 2007, and then another round of failures early in the Obama administration. The peace process has been rumbling on since the Madrid Conference of 1991 and the historic Oslo Accords of 1993, yet in over 20 years there is still no sense of finality.

Attached to the most recent round of negotiations was a palpable sense of fatality: this could be the final chance for an American-led peace process to be successful. There are several reasons for the pervasive sense of a coming paradigm-shift in the conflict. The first is the old adage about insanity: trying something again and again while expecting different results. But aside from this obvious trope, there are changing conditions on the ground that point to a desire to move away from a similar negotiation strategy. The most obvious is the Israel-Hamas war over the summer of 2014, a violent conflict that caused large amounts of death and destruction in the Gaza Strip. The war contributed to the overall degradation of the relationship between the two sides. The Palestinian Authority has recently signed the Rome Statute and joined the International Criminal Court, threatening to make complaints against Israel for war crimes. Such a move would certainly cause complications for Israeli leaders wishing to participate in peace negotiations. Meanwhile, Israeli settlement construction makes drawing a map that would provide a contiguous Palestinian state more difficult. Beyond this, the
recent re-election of Prime Minister Benjamin Netanyahu shows that the Israeli
city is not currently seriously interested in a two-state solution.

Observers and political actors are beginning to examine new methods
which will help bring an end to the conflict. There is a lot of talk regarding
“internationalizing” the conflict, with many voices claiming that America has lost
the ability to be considered an unbiased mediator.\(^1\) The BDS (Boycotts,
Divestments, and Sanctions) movement is the leading face of a growing call for
Palestinians to turn to non-violent resistance against Israel, in place of a new
intifada. The movement is gaining popularity both worldwide and in America.\(^2\)

Meanwhile, cooperation on water between the Palestinian Authority and
the Israeli government has broken down. The challenge of allocating water
resources between the two peoples began in 1967, when Israeli forces took
control of the West Bank and Gaza Strip, as well as the Golan Heights from Syria.
As part of this territorial capture, they gained control to the mountain aquifer in
the West Bank and the Coastal Aquifer in the Gaza Strip. The situation remained
the same until the Oslo agreement of 1993, and the follow up Oslo II agreement
of 1995. The deal allocated specific amounts of water to each side, and was
supposed to be a temporary deal lasting five years. It also noted the legitimacy of
Palestinian desire to eventually own and control their own water resources. Due to
the failure of progress in the Oslo peace process, the deal has not been revisited in
the 20 years since the agreement.

The Oslo II agreement of 1995 created several institutions to facilitate
cooperation on water infrastructure development between the two sides. From
1995, the time of their inception, until 2010, the institutions were a symbol of the possibility of functional cooperation between the two sides. However, in 2010, the Joint Water Commission, the most prominent of the new institutions, ceased to meet. Israeli members of the JWC had made the approval of Palestinian projects contingent upon the approval of water projects made for Israeli settlements in the West Bank. In 2010, Palestinian members of the JWC announced they would no longer approve any of these projects, and the commission broke down.

As a result of the dysfunction, the supply of water to Palestinians falls well short of the supply of water to Israelis. In the West Bank and East Jerusalem, residents routinely face periods when there is no water running through their pipes, especially during summer months. Many Palestinians still have no access to the water grid at all. They are then forced to buy expensive water delivered by truck from the Israeli water company Mekerot. West Bank Palestinians consume about 70 liters of water a day, falling short of the minimum 100 liters a day recommended by the World Health Organization. In the Gaza Strip, the situation is worse, and rapidly deteriorating. The sole domestic water source in Gaza is the coastal aquifer. The aquifer, as a result of its proximity to the ocean and over-pumping by the Hamas-led government, is highly contaminated by salty water. An estimated 90% of the water is unfit to drink by humans. The aquifer could be entirely unusable by as early as 2016. Israel has recently announced that it will double the amount of water it pumps into Gaza each year.

Despite the recently bleak turn the water situation has taken, Israel and the Palestinian Authority have shown an ability to cooperate on the issue in the past.
Water is not an extremely emotional issue that deals with core identities, such as Jerusalem or the fate of Palestinian refugees. This makes striking a deal between the two sides immeasurably easier. In addition, the severity of the situation, especially in Gaza, mandates a shift in water relations between the two sides.

This paper examines the relationship between the decreasing confidence in reaching a two-state solution on both sides and the breakdown of cooperation in water institutions. I argue that there is a correlation between the breakdown of cooperation on water and a declining faith on both sides that a two-state deal will be reached. This degradation in confidence is marked by several key political events, including Hamas gaining power in Gaza, the re-election of Prime Minister Benjamin Netanyahu, and the several Israeli-Gaza conflicts. Polling data also suggests that the publics on both sides have low faith in an agreement being struck, especially in the short term.

One goal of this paper is to examine ways in which the issue of water can be separated out from the overall peace process. The idea that water has been held hostage by the peace process is advocated by groups such as environmental NGO Friends of the Earth Middle East.\(^3\) With a broken water management system that has no hopes of reform due to stagnation in overall relations between the Israelis and Palestinian, Palestinians are often desperate for water. This leads to conditions which make important water resources vulnerable to pollution, which would hurt both Israelis and Palestinians. In return, this paper then examines if reaching a deal on water could spur the two sides to greater cooperation.
I ultimately come to recommend a two-pronged approach to work on improving the issue of water. What is immediately needed is emergency steps taken by the Israeli government and the international community to prevent a humanitarian catastrophe in Gaza, as well as prevent irreparable damage to the Coastal Aquifer. I then argue that, given the current political situation, a stand-alone water deal without the context of two-state solutions is unachievable. However, if two-state negotiations are to be resumed, I argue that the international community should begin the push for a water deal, which is not contingent upon a final status agreement. Comprehensive two-state negotiations would have to serve as a vehicle to achieve a new water deal. In return, the successful completion of a water agreement could serve to build trust between the two sides, helping to push forward the two-state negotiations.

In this paper, I first detail the political framework for managing water in its current state. Then I examine the performance of this framework in terms of the functioning of water institutions, actual water usage, and cost of water. Context is provided through the examination of Israeli water history and attitudes, as well as water relations with other states. I use the case study of Rawabi as a poignant example of how failure in water cooperation has negatively affected the Palestinian economy. Shifting, I then argue that two-state, American-led negotiations have broken down, and do not have any realistic prospects of succeeding in the near future. This leads me to the argument that an alternative method of negotiations could be a separate water deal between the two sides.
It is important to note that I am not suggesting the concept of a solely “economic peace.” Any water negotiation should be followed by subsequent movements toward increasing Palestinian sovereignty.

The Current Framework

The last comprehensive water agreement between the Israelis and Palestinians was reached in 1995 during the Oslo II negotiations. This agreement was temporary in nature and was intended to be re-negotiated at the end of a five year period. It divided up water resources stemming from the Mountain Aquifer, which lies primarily in the West Bank. At the time of the agreement, Israel was allocated rights to 483 of the 679 million cubic meters of water produced yearly by the aquifer. Palestine was allocated the rights to 118 MCM of water produced by the aquifer, and the right to develop 78 MCM more. This leaves Israel with the rights to 71% of the water produced by the aquifer, while Palestine has the rights 29% of the water.4

The agreement did not include Palestinian water rights to any other sources of water, including the Jordan River, the Dead Sea, or the Sea of Galilee. The coastal aquifer is the only domestic source of water in the Gaza Strip, and is solely managed by the local government.5

The mountain aquifer is divided into three regions: the Eastern aquifer, the Northeastern Aquifer and the Western Aquifer. The Eastern aquifer has an annual recharge of 172 MCM. At the time of the agreement, Israelis were allocated 40
MCM of water, while Palestinians were allocated 54 MCM, and an additional 78
MCM to be developed. The Northeastern Aquifer has an annual recharge of 145
MCM. Israelis were allocated 103 MCM and Palestinians were allocated 32
MCM per year. The Western aquifer, the largest sub-aquifer, has an annual
recharge of 362 MCM. Israel was allocated 340 MCM and Palestine was
allocated 20 MCM per year.\(^6\)

**Mountain and Coastal Aquifers**

![Mountain and Coastal Aquifers](http://infohost.nmt.edu/~lynnek/w10sp/modLoader.php?mod=07&sec=5&pg=4)

An interesting aspect of the water deal between the Israelis and the
Palestinians is the concept of the rights of owning the water. In the interim
agreement between the two parties, the Israelis state, “Israel recognizes the
Palestinian water rights in the West Bank.” However, they pushed back the issue
of ownership of these water resources to a permanent status agreement, which has
never been reached. Palestinian water officials have spoken about their desire to
obtain increased ownership of the water sources that lie in the West Bank. When future discussions of water take place, Palestinian leaders are likely to work toward owning their water territories, along with the general aim of controlling their own territories. In the Gaza Strip, however, Palestinians were granted complete control and ownership over water and sewage systems, with the exception of projects designed to serve Israeli settlements, which have since been evacuated.

The Oslo II water agreement is also guided by principles of coordination between the two sides in a manner that would maximize water benefits for all. In order to do this, the agreement shifted responsibility of managing Palestinian water and sewage resources from the Israeli military government to the new Palestinian Authority. This was significant because water was the first agreement reached under the Oslo II phase of negotiations, and signaled a general shift in transferring responsibilities to a Palestinian political entity, rather than an Israeli military government in the occupied territories.

In order to manage the water infrastructure of the West Bank, the Oslo II agreement set up several new institutions. On the Palestinian side, a Palestinian Water Authority was created with the mission of increasing water supply to Palestinians. The PWA is run by the Palestinian National Authority, a governing body also created by the Oslo treaties. They were to be responsible for the planning and implementation of all new water projects in the West Bank and the Gaza Strip. Following the agreement, one main strategy of the PWA was to seek foreign aid in order to assist in their efforts to provide Palestinians with an
increase in quality water supply. Of the $2.5 billion of aid pledged to the Palestinian Authority, $385 million was directed for use in water and sanitation projects. $58 million of this money was from the United States Agency for International Development. Along with this money, USAID also provided a significant amount of technical support and knowledge, largely through hiring American contractors to help design and implement the projects.¹⁰

In addition to the PWA, another institution named the Joint Water Committee was created to coordinate water projects between the Israelis and the Palestinians. The JWC is comprised of 6 members, with 3 Israeli members and 3 Palestinian members. Any proposals for new water projects on the Mountain Aquifer have to be approved by the JWC. The idea of the committee is that Israelis and Palestinians were to come to consensus on each other’s water projects, ensuring that water resources were managed in a manner that was beneficial to both sides.¹¹

In addition to the JWC, the Oslo II treaty set up at least five Joint Supervision and Enforcement Teams to monitor and ensure water regulations and project guidelines were being followed throughout the West Bank. Each JSET team was assigned to have at least two members from both the Israelis and the Palestinians. Interestingly, in the initial agreement, each side was instructed to travel in separate vehicles unless otherwise agreed upon. This signal of pessimism in the agreement exemplifies the difficulty of getting officials from both sides to work together in such close proximity.¹²
How the Oslo Water Agreement Has Functioned

The most obvious fault in the water section of the Oslo II treaty is the fact that it was never designed to last for more than a temporary period of 5 years. Coinciding with the breakdown of the Oslo process following the assassination of Israeli Prime Minister Yitzhak Rabin, the supposedly temporary agreement was never re-negotiated. The water allotments to both Israel and Palestinians are based on the populations of 1995, not accounting for approximately 20 years of population growth. The concept of Palestinians “owning” their water, which was recognized by Israel in the Oslo II treaty as a legitimate desire, was never revisited. Instead, all of the water contained in the Mountain Aquifer is technically owned by Mekorot, Israel’s national water company. Ownership of the water resources from the Mountain Aquifer was transferred in 1982 to Mekorot from the Israeli government, which had acquired the aquifer during the 6 Day War of 1967.13

The Joint Water Commission has received mix reviews. Friends of the Earth Middle East, an NGO dedicated to working with environmental issues in the area, states that “the joint water committee is the only committee of 5 final status committees that had some semblance of working.”14 The committee has found some success in working cooperatively to approve water projects for both Israelis and Palestinians. In the context of the situation of water management pre-Oslo, it is encouraging that Palestinians have been given some control in the
process of developing and managing water resources in the area that they
officially govern.

However, the JWC process has been criticized in many manners, mostly
from the Palestinian side. One of the primary faults of the process is that any
water projects involving work in land which is designated as Area C under the
Oslo accords, which contains somewhere between 72-74% of the territory in the
West Bank, requires an additional permit process. Since the area is technically
controlled by the Israeli military, any water resource projects are required to
obtain additional approval from the Israeli civil administration, following
approval by the JWC.15 The PWA claims that Israel requires the additional step to
slow down water development. They claim that Israel has, in effect, a double veto
on any Palestinian water projects in Area C, and that “Israel uses ICA permits to
make it virtually impossible for Palestinians to drill new wells in Area C – where
the best water extraction points are located.”16

In addition, there are several qualms about how the JWC works. In the
Western Aquifer, the largest and most plentiful region of the Mountain Aquifer,
not a single Palestinian well project has been approved. For projects that do get
approved, the PWA complains of complicated, delayed permit processes which
require several permits in order to complete one project: for example, a permit to
build a road to get to the worksite, as well as several permits to complete the
work.17

Another major flaw in the JWC process is the seeming reality that
approval of Palestinian water projects has been contingent upon the approval of
water projects in the West Bank that benefit Israeli settlements. The PWA claims that Palestinian members of the JWC are forced to approve Israeli settlement projects on Palestinian land in order to provide more usable water for their constituents. In a 2013 study by researcher Dr. Richard Selby, he found that the approval rate for drilling wells that benefit Israeli settlers was 100%, while approval for drilling wells that benefit Palestinians was 66%. Similarly, 100% of projects building water supply networks for Israelis were approved, while 50-80% of Palestinian water supply networks were approved. 96% of wastewater treatment plants for Israelis were approved, compared to 58% of such projects for Palestinians. According to the PWA, in 2010 the Palestinians refused to approve water projects that benefitted Israeli settlers in the West Bank. Both Dr. Selby and the PWA claim that following the stoppage of approval for settlement water projects, the Israeli members of the JWC refused to approve Palestinian water projects. The work of the JWC came to a stalemate.18

Dr. Selby’s study found that a total of 174 water projects for Palestinians were approved, totaling a capacity of 167,950 cubic centimeters, compared to 28 settler projects approved for a total of 132,250 cubic centimeters of water. At the time of the study, the Palestinian population was seven times that of the Israeli settler community in the West Bank. Another disparity between the water projects of the two groups was the waiting time for approval of projects. An average wait time for approval of Palestinian water projects was 11 months, compared to a 2 month wait time for Israeli projects.1920
Dr. Selby asserts that the reason for the disparities found in the JWC is based upon the unequal power each side has in the committee. Palestinian water supply in the West Bank is entirely dependent on the Mountain Aquifers. To access this water, Palestinians have to apply for permits to the JWC. In theory, Palestinians have veto power over construction of Israeli water infrastructure as well. However, the Israelis can access water without approval from the JWC from several other sources, including the Jordan River, the sections of the Coastal and Mountain Aquifers which are inside the Green Line, and various smaller aquifers in Israel proper. The only need for Israel to apply for JWC approval is to build water projects designed to benefit settlements in the West Bank. This power asymmetry has resulted in the differences seen in project approval, construction, and water supply on both sides.21

Palestinians also feel that Israel refuses to consider new projects that could help to ameliorate what they feel is a water shortage for Palestinians in the West Bank. An example of this is a Palestinian proposal for project at the Al-Fashkha Springs, a set of springs on the western coast of the Dead Sea that the PWA claims are a southeastern end of the Mountain aquifer. The PWA states that these springs have a flow of 100-110 MCM of water each year that could provide substantial help in supplying water throughout the West Bank. However, they have been unable to access this resource due to the refusal of the JWC to approve any projects at this site.22

Palestinians in the West Bank also have complaints regarding their water supply that do not involve the JWC process. A common accusation against Israeli
forces is the destruction of small-scale, largely single-home water-storage tanks that families rely on for drinking and bathing water. The international charity organization Oxfam has stated several times that cisterns, large plastic containers used to collect rainwater, often serve as a target for Israeli soldiers. Bullets from the soldiers break holes in the cisterns, rendering them useless. There have been several examples of Israeli forces systematically destroying cisterns in villages that depend on them for water supply. In 2003, Oxfam claimed that Israeli forces destroyed a cistern in the village of El Boursh because they needed the land to build a wall. This cistern would have served half the village. More recently, in August 2012 the Israeli Defense Forces was accused of destroying four water cisterns, as well as two houses and six stables, in a small seven-family village named Zenuta in the Southern West Bank. The United Nations Office for the Coordination of Humanitarian Affairs states that 46 cisterns were destroyed in 2011. There are numerous tales of Israelis destroying cisterns, often built with international funding, for a lack of building permits that are largely inaccessible to Palestinian families.

The Israeli government has repeatedly insisted that they follow all international agreements, and are charitable with aiding in developing water resources in the West Bank. In a May 2013 statement, the Israeli Water Authority made several rebuttals to a report by Palestinian Human Rights Non-Governmental Organization Al Haq that claimed that Israelis use water as a political weapon. These arguments include:
• Israeli usage of the Mountain Aquifer is lower than the pre-1967 era while Palestinian usage of water has surged during this period

• Settlers in the West Bank consume less water than the amount of water that Israel transfers to the West Bank

• Palestinians consume 190 MCM of water per year compared to 118 MCM per year when the initial water agreement was signed

• 95% of Palestinians are connected to the water grid today as compared to less than 10% pre-1967

• Palestinians living in West Bank cities have higher access to water resources than most Arab neighbors

• The JWC is an institution that was agreed upon by both sides in which both sides have equal veto power

• Israel holds trainings for Palestinians on wastewater treatment, reclamation and desalination

• The Palestinian Authority states that they lose 33% of water throughout their network, which is not influenced by Israeli actions

• The Palestinian Authority does not treat its wastewater, going against the 1995 water agreement

• If the PA reduced water losses and treated their wastewater, the amount of water available to Palestinians would increase by at least 60 MCM per year
An overarching claim of the Israeli refutation is that the Palestinians are not actually interested in improving Palestinian access to water resources, but instead are focused on turning the water issue into a political one.27

**Actual Usage and Costs**

While there is debate as to who is at fault for water usage discrepancies, it is very obvious that there are stark differences between the amount of water used by Israelis and Palestinians. The aforementioned Al Haq report of April 2013 states that Palestinians living in the West Bank, Gaza and East Jerusalem consume an average of 73 liters of water per day. They contend that Israelis consume an average of 300 liters per day. The minimum average water consumption per day recommended by the World Health Organization is 100 liters per day. Al Haq estimates that Israeli settlers in the West Bank use six times the amount of water as Palestinians living in the West Bank, despite the fact that there were 500,000 settlers at the time of the report compared to 2.6 million Palestinians.28

Israeli Human Rights Organization B’Tselem published a report in March of 2014 detailing what they viewed as “Discriminatory Water Supply.” They state that of the 118 MCM of water pledged to the Palestinians under the Oslo II Accords, they only access approximately 73% of that amount. This results in Israelis accessing 86% of the water available in the Mountain Aquifer, while the Palestinians are only able to use the remaining 14% of the Aquifer. The
organization also estimates that there are roughly 113,000 Palestinians in some 70
villages throughout the West Bank that are not connected with the water grid at
all. The average water consumption of these 113,000 people varies between 20-50
liters a day, less than half of what is recommended by the World Health
Organization. The Israeli Water Authority estimates that Israelis consume an
average of 173 liters of water per day.29

Palestinians in the West Bank who are connected to the water grid also
often face the prospect of having to obtain their water from alternative sources.
B’Tselem describes how the Palestinian Water Authority often does not have
enough water to supply to all of its citizens. It instead has to turn to rolling water
supplies, rotating through villages.

In addition, Palestinians in East Jerusalem also face the potential of long
water outages, even though their water supply is controlled by the Israeli Water
Authority. One notable example of a long-term water outage began in March of
2014 in four Palestinian neighborhoods in East Jerusalem: Ras Shehada, Ras
Khamis, Dahyat A’salam and the Shuafat Refugee Camp. For three weeks in
March, the four neighborhoods were not able to access water at all.30 As of
January 2015, the four neighborhoods were still facing continuing problems in
gaining consistent access to water from their pipes, a problem lasting over 10
months.31 This is compared to Israeli neighborhoods in the same city, which have
not faced any notable disruptions over the same period of time. 80% of the
residents of these four neighborhoods live under the poverty line, yet are forced to
turn to expensive alternatives such as bottled water in order to obtain enough
water to subsist on.

In the Gaza Strip, the situation is dire. Gaza only has one domestic water
source, the Coastal Aquifer, which can be accessed by both Israelis and
Palestinians on different ends. In a February 2014 report, B’Tselem detailed that
90% of water in the Gaza Strip was not suitable for drinking, or even agricultural
uses. Approximately 180 MCM of water are pumped from the aquifer yearly, yet
the annual recharge of the aquifer is approximately 50-60 MCM. This drastic
over-pumping causes great damage to the aquifer, especially given its proximity
to the ocean. Brine and salt water seeps into the aquifer, making it unsafe to
drink. The United Nations Environmental Program has estimated that if current
pumping rates continue, the Coastal Aquifer may be entirely unfit for supply
drinking water by 2016, and the damage could be irreversible by 2020. A long-
term plan is needed to entirely eliminate the need for pumping water from the
Coastal Aquifer in order for the Aquifer to provide any amount of clean drinking
water to the citizens of Gaza in the long-term.

The over-pumping problem is compounded by the lack of effective
sewage treatment facilities, as well as a failure to construct and operate large-
scale desalination plants. According to B’Tselem, only 25%, or 30,000 cubic
meters per day, of wastewater is treated effectively. The other 90,000 cubic
meters per day that is not treated can seep into the coastal aquifer as well as the
Mediterranean Sea, contributing to the degradation of Gazan water supplies. A
large problem in attempting to effectively treat wastewater is the need for constant
electricity supply. Gaza often suffers from electricity blackouts, rendering it near impossible to effectively treat the required amount of wastewater.\textsuperscript{34}

Desalination plants are often looked to as the only short-term practical solution in easing the imminent water crisis. In March of 2014, the European Union and the United Nations Children’s Fund (UNICEF) launched a project to build a desalination plant that could provide drinking water to 75,000 people in the Gaza Strip. It is expected to begin generating drinkable water in 2016.\textsuperscript{35} Environmental activists claim talks about a large scale desalination plant began in 1996, yet due to political difficulties construction did not begin until this time.\textsuperscript{36}

In the absence of large-scale desalination plants, many Gazans are forced to purchase water from small-scale, private desalination companies. The water from these companies, which are often run illegally, is not well-regulated. It is often not adequately desalinated, or is contaminated by other pollutants. This contaminated drinking water leads to negative health consequences for the residents who drink the water, including kidney disease and osteoporosis. Similar to the process of treating wastewater, desalination requires a large supply of energy, which is not readily available in the Gaza Strip.\textsuperscript{37}

The existing water problems in Gaza have been highly exacerbated by the three wars with Israel since 2007. Prior to the wars, access to piped water was already intermittent at best. B’Tselem described the situation prior to the war: although there was improvement in increasing access of Gazan homes to the piping system, “Households receive running water for only six to eight hours at a time: 25% of households on a daily basis, 40% every other day, 20% once every
three days, and the remaining 15% (in Gaza City, Rafah and Jabaliya) only one
day out of four.”

During the war of summer 2014, bombing in Gaza damaged water
infrastructure on a wide scale. Damage to water pipes, sewage treatment plants,
and electrical production plants severely restricted access to water for citizens of
Gaza. Oxfam International, a global anti-poverty group, reported that during the
war \( \frac{3}{4} \) of Gazan citizens, or 450,000 people, had no access to running water. At
least twenty-six wells, which already had highly saline water, and six purification
centers were damaged during the war. Due to the lack of usable water, there were
widespread reports of negative health consequences. In addition to effects from
dehydration, a lack of water for bathing purposes led to an outbreak of skin
diseases and other infections. Extensive damage done to the wastewater
treatment system, including pipelines and treatment plants, led to the presence of
an estimated 15,000 tons of solid waste in the streets of Gaza.

In August 2014, following the war in Gaza, the Palestinian Water
Authority published a report detailing the damage caused to the water system due
to bombing. The Damage Assessment Report estimated that 34.343 million US
dollars’ worth of visible damage was done to the water system in Gaza as a result
of the war. In addition to the obvious damage, the DAR also estimated the cost of
water services that had to be provided to the residents of Gaza as a result of
interrupted water service. In the first six months following the war, an estimated
30.826 million US dollars would have to be spent in order to restore the water
system to at least a semi-operational state. To fully restore the water and
wastewater systems that were damaged by the war, the estimated cost is 32.96 MUSD. Finally, the PWA estimates a cost of $620 million in developing a long term, sustainable water system that can deliver an adequate water supply to the citizens of Gaza, along with a governance system to maintain it.42

A troubling aspect of water maintenance during Operation Protective Edge for the PWA was the safety of their workers. The PWA claimed that they coordinated with the International Committee of the Red Cross in order to carry out the needed repairs to the water system without violence against their workers. However, the PWA states that seven technicians working for the Coastal Municipalities Water Utility and Municipal Water Departments of local governments were killed by Israeli bombs while attempting to carry out repairs to water systems. This violence led to reticence on the part of the PWA in sending out technicians to attempt to make needed repairs to the water system during the war.43

Israel has displayed a strong interest in maintaining a supply of adequate drinking water to the Gaza strip. In March of 2015, Israel announced that it would begin pumping 10 million cubic meters of water into the Gaza Strip each year. This doubled the previous amount of 5 MCM that Israel pumped into Gaza each year.44 Doubling the water supply was advocated by many groups, such as noted American liberal-pro-Israel advocacy group J-Street, who urged the Israeli government to increase the amount of water available to Gazan citizens. J Street says that Israel has three water pipelines running into Gaza, yet one is entirely shut off. J Street urged Israel to double the amount of water they supplied to Gaza
by turning this water on. In addition, J Street urges Israel to increase the amount of electricity supplied to the Gaza Strip in order to better treat their wastewater and cut back on the amount of sewage seeping into the streets, a problem which they claim affects Israel as well.45

**Rawabi: A study in Dysfunction**

In 2008, following the Palestine Development Conference, Palestinian businessman Bashar Al-Masri began formulating a project to create the first planned city in the West Bank. The city was named Rawabi, and was planned to be built between Ramallah and Nablus in Area A (under jurisdiction of the Palestinian Authority). Al-Masri, the owner of a company named Masser International which works in real estate and finance, raised funds in part from Qatari real estate companies as well as the Qatari royal family.46 The United States Agency for International Development was also involved in providing funding for the project, pledging $5 million for the building of roads and retaining walls.47

The city was designed to be a symbol of a self-sufficient Palestinian State. It includes many Western-style amenities, such as an amphitheater, schools, playgrounds, a country club, a technological park and more. There were plans to import a water purification system from Israel to produce water that could be used for irrigation and in local homes. When asked about his motivations for building
the city, Al-Masri stated the following: “The Palestinian state will be established. It’s just a matter of time. The question is only when and what kind of state it will be. Will it be like those countries in Africa that subsist off donations and aid, or will we be a progressive state, home to corporations that are traded on the Nasdaq? Our preference is obvious, which is why Massar is investing in Palestine.” The Palestinian Authority pledged support for the project, committing to build transportation, electricity, and water infrastructure, as well as providing basic services such as education, health and security.48

Al-Masri faced criticism from the Palestinian Boycotts, Divestments and Sanctions movement for the planned construction of Rawabi. The movement saw the construction of Rawabi as too tied to normalization with Israel, abandoning what they saw as the spirit of Palestinian resistance. For example, they decried the donation of 300 trees to Rawabi from the Jewish National Fund as well as the involvement of certain Israelis in providing counsel to the city, such as a chief legal adviser who was previously a senior advisor to Israeli Prime Minister Ariel Sharon. In response to the criticism, Al-Masri stated that no Israeli construction companies were used, but the Israeli companies provided some of the raw materials. While city administrators accepted the lowest bid possible for most of the raw materials, they claimed that they refused to work with any companies that were involved with the construction of Israeli settlements in the West Bank.49

The city is designed to eventually hold 40,000 residents when entirely finished50, and hold 25,000 in the first phase of construction.51 600 Palestinian citizens were planning on moving in by the end of 2014. The city is planned to
contain 25,000 housing units. Architecturally, the city more closely resembles Israeli settlements than traditional Palestinian cities, another concern for Palestinian activists concerned with Rawabi’s normalization implications. Most of the early purchasers of Rawabi housing units were middle and upper-middle class Palestinians, although Al-Masri maintains that Rawabi is open to Jews and Christians as well as Muslims. Most of the planned early residents of the city were married couples and families, although there was a significant number of singles who were largely interested in purchasing housing units in Rawabi for investment purposes.

While investors were expected to be able to move in around mid-2014, the administrators of Rawabi faced a major issue: working with Israeli institutions to provide the city with running water. At first there was a delay in reaching a deal between the Israeli and Palestinian Water Authorities on the topic of Rawabi. This step was seemingly the most difficult obstacle to overcome in the long process of attaching the city to the water grid, and once a deal was reached in early September 2014 it seemed as if the water access was imminent. However, following this approval, right-wing Israeli settler groups began decrying the city’s access to water. These groups had opposed the construction of the city all along, stating that it represented a security threat due to the ability of a citizen of Rawabi to be able to see a large chunk of the Israeli coast, including the cities of Tel Aviv and Ashkelon. This discontent increased following Operation Protective Edge, in which the extent of the tunnels built by Hamas in the Gaza Strip was revealed. Right-wing groups were also wary of Rawabi’s funding ties to the Qatari
government, which they viewed as a staunch enemy. The delay in water access continued, and Al-Masri was forced to stop continuing construction on a city which was already supposed to be housing residents.\textsuperscript{55}

Pressure coming from the right-wing settlement groups resulted in the delay of approval from the Israeli Civil Administration, the military authorities responsible for government administration in the West Bank. However, in January of 2015, Israeli Coordinator of Government Activities in the Territories Major General Yoav Mordecai announced approval of water access for Rawabi. Once again, it seemed as if water was finally coming to the planned metropolis. Al-Masri released a newsletter to the apartment holders of Rawabi, where 639 units were completed and ready to be inhabited. Yet, once again, a significant stumbling block was presented in the form of Israeli Minister of National Infrastructures, Energy and Water Resources Silvan Shalom. Shalom, a member of Prime Minister Benjamin Netanyahu’s Likud party, had come under pressure from right-wing settler groups to halt the project, which he had capacity to do as the head official of the Israeli water sector.\textsuperscript{56}

Minister Shalom stated that the approval of water access for Rawabi was contingent on the approval of the Joint Water Council. However, the Joint Water Council has not met since 2010 amid Israeli insistence that approval of Palestinian water projects was contingent upon approval of new projects for Israeli settlements. Shalom deemed that the approval by the JWC was necessary, claiming that by bypassing the committee he could “jeopardize the foundations” of the water institution. Meanwhile, Attorney Dov Weisglass, main legal advisor
to Al-Masri and former senior Advisor to Israeli Prime Minister Ariel Sharon, claims that not a single water project to an Israeli settlement was held up over the 5 year period of JWC inactivity. In addition, there were also reports that if Rawabi water were to be approved without the reconvening of the JWC, the Israeli government gave assurances to the settlement group the Yesha Council that they would approve several water projects for settlements in the West Bank.57

The continued delay in water access had significant negative economic effects. Al-Masri claimed that he invested almost the entirety of his wealth into the city, and was at risk of personally becoming bankrupt. Weisglass stated that over 500 construction workers were laid off as a result in the halt in construction. He also threatened a massive lawsuit against the Israeli government if they ultimately failed to establish the water connection to Rawabi and the project went bankrupt. The Palestinian Authority was depending on the project as an economic boost to the surrounding areas, providing services and generating quality jobs. There were also the large amount of families and investors who had purchased housing units and were expecting to move in that were caught in limbo waiting for Israeli water approval.58

The approval of water to the system became a large political issue, and gained support from unlikely Israeli sources. Defense Minister Moshe Ya’alon, also of the Likud party and a noted right-wing politician, gave his blessing and was involved in the Maj Gen Mordechai’s approval of the project.59 President Rueven Rivlin, who has previously spoken out against the establishment of an independent Palestinian state, stated that Israel should provide water to Rawabi,
noting that Israel is providing water to the settlements in the West Bank. He also went as far as to add that “Rawabi is in the interest of Israel.”

Finally, in late February 2015, Prime Minister Benjamin Netanyahu personally intervened and ordered that Israel connect Rawabi to the water system. Ahead of Israeli elections, it is speculated that Netanyahu saw the failure to approve water access for Rawabi as an embarrassing issue, especially in his relations with the American government. Beyond the Obama administration, Netanyahu also faced questions from American Jewish interest groups regarding what they saw as the failure of Israel to support a peaceful Palestinian attempt at domestic economic development. In addition, Israeli defense agencies were afraid that the failure to support the opening of Rawabi could increase the likelihood that the Palestinian Authority would take the step of cutting off security cooperation with Israel. Despite all of these reasons to approve the Rawabi water project, the JWC never successfully reconvened to approve the project, and Netanyahu had to intervene himself.

This, ultimately, is what Rawabi represents. The breakdown of a water system created by Oslo II that had previously, at least to a degree, represented an area where Israel and Palestine could demonstrate an ability to functionally cooperate on governance issues.

**Israeli Attitudes towards Water and Relations with Other States**
In the traditional early Zionist attitude, water was treated as a resource to be valued. Early Zionist visionaries pictured Israel as an agricultural state that tied the people to the land. Because the land was situated in an arid, desert region, efficient use of water was necessary for the flourishing of an agricultural state. Early Israelis, therefore, treated water as a scarce resource which was to be valued and reused at all costs. The government in the early period of the state of Israel had a large role in expanding agriculture as a means of building a state. They also, therefore, had a large hand in regulating water usage as well as discovering new water resources. Israelis worked at developing technology and methods which would increase water efficiency and allow them to reuse as much water as possible. These technologies include drip irrigation, treating and reusing sewage water, and desalination of water from the Mediterranean Sea.63

Included in this plan was the need to develop a well-functioning, widely encompassing set of government institutions which oversaw the management and allocation of water resources. Part of these early water institutions were two important corporations which were partially owned by the government and were under the authority of the Israeli Water Commission Administration. One corporation, Tahal, was placed in charge of the overall planning of Israeli water supply. The other, Mekerot, was placed in charge of the construction of all irrigation and supply projects for Israeli water systems. These corporations, as well as other groups which hoped to exploit water systems, all had to get permits
for projects from the Israeli Water Commission. The Israeli Water Commission is under the Ministry of Agriculture.64

The more prominent corporation today is Mekerot, which is currently in control of all water resources in the Mountain Aquifer. Mekerot was founded in 1936 by the Jewish Agency and the Histadrut Labour Federation. Over time, the Israeli government acquired some stake in the company, which has also traditionally been largely co-owned by organizations such as the Jewish National Fund.65 Today, it continues to operate as a partially-government-owned company with exclusive rights to Israeli-controlled water resources.66

An early example of Israel’s international involvement in water affairs is the so-called Johnston Plan, negotiated by American Special Envoy Eric Johnston at the direction of President Dwight Eisenhower. The plan was negotiated at the request of the United Nations Relief and Work Agency for the Palestinian Refugees and was an effort to reduce tensions and outbreaks of violence that were prevalent between Israelis and Arabs in 1953. Johnston formulated a plan and used shuttle diplomacy to reach an agreement with an Arab Technical Committee formed by the Arab League as well as an Israeli team of technical representatives. Although the Arab Technical Committee approved of the plan, it never actually gained political approval at a higher level with the Arab League. However, both the American and Israeli governments functionally operated as if the plan were accepted until the war of 1967. The plan divided the resources of the Jordan River and its main tributary, the Yarmouk River, between Lebanon, Syria, Jordan, and Israel according to irrigation need. It did not address groundwater resources.67
Concurrently at this time, planning of an Israeli project named the National Water Carrier began. The planning for the Carrier started in 1949, diversion of water in order to feed the Carrier started in 1951, major construction on the Carrier started in 1953, and the project was completed in 1964. The project was designed to carry water from the water-dense Northern region throughout the country, specifically to the more arid Southern region of Israel. The water used in the carrier included water diverted from the Jordan River. This diversion sparked tensions and small conflicts with Syria, leading to the conditions that necessitated the negotiation of the Johnston Plan. The National Water Carrier is a symbol of the Israeli attitude towards water at the time: the challenge with water resources is delivery-based, and the solution is building infrastructure that can deliver existing water resources to needed areas.68

By the Arab-Israeli war of 1967, it seems that a shift in the way Israelis viewed their challenges facing water had occurred. As Israeli domestic water use increased, and was projected to increase even further, Israelis went from being primarily concerned with the distribution of water to being primarily concerned with acquiring a higher amount of total water resources. The extent to which water played a role in provoking the war of 1967 is of contention.69 However, water resources clearly played an important role in the war from an Israeli perspective. At stake in the war were water resources from both the Jordan River and the Mountain Aquifer in the West Bank.

At the time, many journalists noted the importance Israelis attached to obtaining ownership of water rights in the Mountain Aquifer in the West Bank,
which before the war was a territory belonging to Jordan. Before the war, Israelis pumped water from the part of the Aquifer that lays inside the Green Line, but did not have ownership of the entirety of the aquifer. A majority of the access and recharge points of the aquifer are located in the West Bank. In addition to this issue, Israel was interested in gaining further access to resources of the Jordan River and its tributaries. Jordan and Syria began the construction of the Maqarein dam in the West Bank, a project which intended to divert the waters of Jordan River for use in the two countries in accordance with the Johnston plan. This development is thought to have scared Israelis, who had been utilizing the resources of the Jordan and Yarmouk rivers, of an impending water crisis.70

There is some discussion as to whether or not the Arab-Israeli war of 1967 was a “water war” or not. There have been claims that the war started over the beginning of construction of the Muhkeiba dam, another project designed to divert water from the Jordan River. Regardless of the veracity of this statement, it is obvious that water was an important factor in both the fighting of the war, as well as in its aftermath.71

As a result of the war and the comprehensive Israeli victory, Israel gained access to ownership of the water of the Mountain Aquifer. Israel had feared that by failing to gain control over the Mountain Aquifer, it could lead to the increased salination and degradation of this important resource. Israel also gained increased water access from the Yarmouk and Jordan rivers at the expense of Jordan and Syria. By gaining the Golan Strip from Syria, Israel increased its access to tributaries of the Jordan River and the Yarmouk River, as well as to Lake
Tiberias. Israel prevented Jordan from building structures that would divert water from the Yarmouk River, and also gained access to the Jordan via the Jordan River Valley in the West Bank. As a result of these gains, Israel, by the 1990s, consumed water resources from the Yarmouk and Jordan rivers at a greater rate than called for by the original Johnston plan.72

Until the 1990’s, Israel had a virtual status quo in their water resource situation. A few notable changes took place. In 1982, ownership of the water infrastructure in the West Bank was transferred from the Israeli military administration to Mekerot.73 In 1973, Mekerot began to construct the first desalination plant in Israel. This idea had long been considered by Israeli officials, and the gradual increase in the amount of water available through desalination has eased the sense of water scarcity.74

In the 1990s, Israel’s water relations with its neighbors began to change. One agreement, as previously detailed, was reached with the Palestinian Liberation Organization as part of the Oslo II Accords. In addition, Israel reached a water agreement with Jordan in 1994, as part of the two countries’ comprehensive peace treaty. This treaty served to mostly restore the allocation of East Bank water in the Johnston treaty back to Jordan, greatly increasing its water supply while having only a small negative effect on Israel’s access to water. Notably, bilateral negotiations between Israel and both Syria and Lebanon were held in order to attempt to increase water access for both countries from the Jordan river basin, similar to the negotiations held with Jordan. However, an
agreement was not struck between Israel and either country, and the post-67 water usage norms in those countries have remained the status quo.\textsuperscript{75}

This treaty remained the status quo for water access between Jordan and Israel until recently. In December of 2013, Jordan, Israel and the Palestinian Authority signed a preliminary agreement on water resources. The agreement included the construction of a new desalination plant in Aqaba, Jordan that would desalinate water from the Red Sea to produce freshwater that would be used in Jordan and Israel. The brine from this project would then be pumped into the Dead Sea via a pipeline in an attempt to reverse the trend of falling water levels in the Dead Sea. In addition, Israel would send additional fresh water from the Sea of Galilee to Jordan, while Palestinians would have the chance to buy some of this water from Israel. At the time of the agreement, the head of the Palestinian Water Authority, Shaddad Attili, claimed that the agreement did not significantly affect Palestinians, and he signed on as support for the Jordanians.\textsuperscript{76} Palestinian approval of the project was necessary due to its geographic proximity to the Dead Sea.

Mr. Atilli’s analysis proved to be correct. In February 2015, a final agreement was reached between the parties. Following the final treaty, an advisor to the Israeli National Infrastructure, Energy and Water Minister stated that the Palestinian aspect of the water treaty would be dealt with separately.\textsuperscript{77}

Despite its shortcomings, what the latest Israeli-Jordanian water deal represents is promising. In Israel, despite traditional cultural attitudes of saving water, the sense of a water shortage has slowly eased. This is due to Israeli
technological advancements throughout many years in desalination, wastewater treatment, agricultural practices, and other demand side conservation tactics. This increase in water supply has the potential to allow Israel to supply additional water aid to their neighbors, as they have in both Jordan and Gaza. These new water deals could serve to be a beacon of cooperation in a region where positive relations between governments can be difficult to find.

The Breakdown of the Two-State Solution

A key reason this paper recommends exploring the issue of water separately from a comprehensive peace deal is the bleak outlook of a peace deal being completed. The peace process between Israelis and Palestinians was jolted by the Oslo Agreements of 1993, and has been ambling forward since that time. For the purposes of this paper, I examine recent events and conditions that lead me to assert that the prospects of a comprehensive peace deal are dim at best. Long-term challenges include reaching final-status agreements on borders, the fate of Israeli settlements, the status of Jerusalem and agreements on the rights of Palestinian refugees. However, I only analyze particular obstacles that represent the difficulty of reaching a two-state agreement at current time.
Settlement Construction

One of the main obstacles in pursuing a negotiated two-state agreement is continued construction and existence of Israeli settlements in the West Bank. Settlement construction has been fairly consistent in the West Bank since 1991, throughout the duration of peace negotiations between Israelis and Palestinians. In a 2010 study, Neve Gordon and Yinon Cohen found that Israeli settler migration to the West Bank has continued unimpeded throughout the various peace negotiations since 1991, regardless of which political party is in control of the ruling coalition. The only stark downturn in settler migration occurred in 2001, most likely due to violence resulting from the second intifada. Gordon and Cohen found that the settler community in the West Bank grew from 89,800 in 1991 to 311,100 in 2010. The natural growth rate for the settler community would have resulted in a population of 166,336, suggesting that 144,764 of the increase came as a result of migration into the settlements.78

![Figure 1: West Bank Settler Population, 1991–2010](image)
More recently, Israeli settlement growth has been increasing in intensity under Prime Minister Benjamin Netanyahu. Since he has been elected in 2009, the settler population has been growing at twice the speed of the rest of the Israeli population, growing 24% from the beginning of 2009 until the beginning of 2014. At that time, an estimated 355,993 Israeli settlers were residing in the West Bank. An estimated 80,000 of these settlers are residing in isolated settlements deep in the West Bank, unconnected to the network of settlements close to the 1967-border. There is debate on the nature of the settlement growth under Netanyahu. Some, such as Israeli anti-settlement group Peace Now, claim that his administration has aided settlement construction in outposts deep inside the West Bank. Other observers view the large majority of Netanyahu’s settlement construction as taking place inside existing settlement blocs, which would, in all likelihood, be part of any negotiated Israeli state.
During the recent American-led peace negotiations, the American government repeatedly expressed their frustration at what they viewed as settlement construction that harmed the chances of reaching an agreement on a peace deal. In January of 2014, during negotiations, the Israeli government was asked by the American government to delay the announcement of new settlement construction projects to after a planned visit from Secretary of State John Kerry, sparing great embarrassment. It seems that Israeli leaders planned the announcement of new settlement buildings to coincide with the four planned releases of groups of Palestinian prisoners, a pre-condition of Palestinians entering negotiations. This suggests that Netanyahu had an interest in keeping the right-wing base of his coalition happy, at the expense of a possible agreement with the Palestinians. Following the breakdown of negotiations, and the Gaza war of the summer, Israeli settlement construction has continued with vigor. Part of
this settlement construction includes work in East Jerusalem, an especially contested area. Palestinians claim that East Jerusalem must be the capital of any future state, while Israelis desire Jerusalem as the undivided capital of a state for the Jewish people.84

What this continuous settlement construction suggests is an attempt by multiple Israeli governments to change the factual situation on the ground in the West Bank to establish as wide a footprint as possible, increasing their leverage in future peace negotiations. Even Prime Minister Ariel Sharon’s 2004 settler evacuation and disengagement from the Gaza Strip has been suggested by many observers as a political ploy to consolidate their holding on territories in the West Bank.85 Recently, many key stakeholders have expressed their fear that the settlements will prove to be an obstacle that is too difficult to overcome in peace negotiations, especially following Netanyahu’s declaration that he does “not intend to evacuate any settlements.” Martin Indyck, the leader of the American team during the most recent peace negotiations, claimed the settlement construction had a “deeply damaging effect.”86
As explained by Gordon and Cohen and a lengthy report in the *New York Times* by Jodi Rudoren and Jeremy Ashkenas, there is a fear that as settlement growth continues to expand it will be increasingly difficult to produce a map that provides a contiguous area of Palestinian sovereignty in the West Bank. In a 2005 paper, Ghazi-Walid Falah argues that Israelis are pursuing a deliberate strategy of “Enclavisation” in the West Bank and Gaza Strip. He claims that Israel’s goals are...
to isolate and surround Palestinian cities and villages to a degree which makes political control over the space unachievable for Palestinian governments. In addition, he goes as far to argue that the Israeli elite political class’s ultimate border goal is the inclusion of all of mandatory Palestine.87

As Israeli settlement construction unilaterally changes the facts on the ground, it erodes trust between Israel and both the Palestinian Authority and the United States, its two partners in negotiations. It also pushes the Palestinian Authority to pursue unilateral moves to try to enhance its negotiating position. These steps include appealing to the UN for statehood, or threatening to submit a complaint to the International Criminal Court claiming the construction of Israeli settlements in the West Bank constitute war crimes.88 All of these developments are viewed as negative by negotiators who hope to achieve a negotiated two-state settlement between the two sides.

The Hamas-Fatah Split

In January 2006, Islamist party Hamas won internationally-monitored Palestinian elections over their main rival and traditionally dominant Palestinian political party Fatah. In June of 2007, following several missteps by Fatah and the American, George W. Bush-led administration, Hamas took military control of the Gaza Strip, leaving Fatah in power in the West Bank.89 There have not been elections since 2006, and the power split between Hamas and Fatah remains, despite several stated attempts at forming Palestinian Unity Governments.
The split between Fatah and Hamas represents a challenge in overcoming successful negotiations, especially given Hamas’ traditional reluctance to accept negotiations with Israel as legitimate. If Israel and the Palestinian Authority were to come to an agreement that nominally led to an end-of-claims settlement, there is no indication that Hamas would sign on. Given that Hamas is in control of a sizeable share of Palestinian land and population, dealing with the split is a significant obstacle in achieving a negotiated settlement. Adding complexity to the split is the physical separation, in a sense enclavisation, of the two territories, allowing them to be governed entirely separately from one another.

Hamas’ inflammatory language and attitude toward Israel results in Israeli refusal to negotiate with the group, a key problem of any negotiated settlement. Hamas’ charter denies the right of Israel to exist, and claims that the entire land of mandatory Palestine must be liberated from Zionist colonizers. Despite recent claims from leaders of Hamas that the charter is outdated and they will not follow it strictly, there have been repeated claims by several leaders that Hamas’ ultimate goal remains liberating the entire land of Palestine. Some Israeli-oriented voices, such as the Washington Institute for Near East Policy’s Ehud Yaari, advocate attempting to reach a *hudna*, or long-term armistice, with Hamas. He argues that such an agreement could be a moderating influence on Hamas, which already has internal voices pushing for reconciliation with Israel. Regardless of the possibility of reaching a temporary political agreement with Hamas, it will be near-impossible for Israel to reach a comprehensive negotiated settlement with their
traditional enemy, as shown by Benjamin Netanyahu’s recent reaction to the Hamas-Fatah Unity Government.\(^9\)

**Failed Negotiations, and a Telling Israeli Election**

In July of 2013, Secretary of State John Kerry began a new round of Israeli-Palestinian negotiations. Prior to the talks, Secretary of State John Kerry stated the following regarding a two-state solution: “I think we have some period of time—in one to one-and-a-half to two years—or it’s over.” He also stated that he feared a third intifada if peace talks were to fail again.\(^2\) While talk of supposed last chances is often attached to peace negotiations in the conflict, it seems that this time there was a real sense of urgency when observers claimed that the two-state solution may not be achievable again in the near future if this round of talks were to fail. The reasons for this negative feeling about the future were numerous. They included longevity concerns regarding PA President Mahmoud Abbas, who was 77 at the beginning of negotiations. Israeli President and former Prime Minister Shimon Peres called Abbas the “best peace partner Israel could hope for,” and there is a sense of fear about the nature of any political leader who will inevitably have to replace him.\(^3\) Similarly, the Palestinian public is growing increasingly wary of what they view as corrupt Palestinian Authority rule, and political support for the PA may run out soon. One reason for shrinking support for the PA is a growing belief among Palestinians that peace negotiations with Israelis will prove fruitless, based on history of negotiations since Oslo.\(^4\)
Yet another major reason is the growing Israeli settlement enterprise in the West Bank threatening to make constructing a sensible border plan a real challenge. For all these reasons, Kerry put a strong emphasis on the need for a deal during these negotiations.

Even getting the two sides to the negotiating table proved to be a difficult task. Abbas wanted a settlement freeze in return for entering negotiations, which the Netanyahu government was unwilling to cooperate on. Ultimately, Kerry got the Netanyahu government to agree to release eighty Palestinian prisoners through four stages over nine months in exchange for Palestinian participation in negotiations. Netanyahu, on his end, was wary of entering negotiations, but felt pressured by the looming possibility of international isolation and a desire to maintain positive relations with the United States. He also traditionally had positive relations with Kerry, which helped him agree to enter the negotiations. Kerry, however, was unable to extract any agreement on settlement construction slowdown from the Israelis.95

Ultimately, the talks proved to be a failure, despite massive effort by Kerry and the American team. With reaching a deal seemingly impossible by the nominal April 29th deadline, Kerry pushed to reach a framework agreement. However, the gaps on many issues were too far apart to forge an agreement between the two sides, including the presence of Israeli security troops in the Jordan valley, the status of East Jerusalem, and the fate of Israeli settlements in the West Bank. Notably, however, the Americans did gain valuable concessions from Netanyahu on the issue of borders (getting him to acknowledge pre-1967
borders as a guideline for negotiations) and accepting fault and providing compensation for refugees.\textsuperscript{96}

The talks broke down in the short-term for several reasons. The Palestinians, upset at what they saw as American attention and efforts focused disproportionately towards the Israeli side, grew frustrated with many developments. Each phase of prisoner releases was met with the announcement of new settlement projects, a move which greatly irked Palestinian lead negotiator Saeb Erekat. Then, it was revealed that a miscommunication had occurred between Kerry and Netanyahu. The fourth batch of Palestinian prisoners to be released was actually dependent on Israeli Knesset approval, surprising Secretary Kerry. The Knesset insisted upon having a vote because the prisoners in this batch were Israeli citizens, which potentially made their release more dangerous and politically tricky to deal with. As Israel deliberated about whether to release the prisoners, Abbas signed documents to have the Palestinian Authority join fifteen United Nations Conventions, yet notably refrained from taking the consequential action of joining the International Criminal Court.\textsuperscript{97} The talks seemed to get slightly better until April 23rd, when the PA, frustrated with the prisoner issue and not optimistic about achieving a favorable agreement, announced they were forming a unity government with Hamas. Israel, despite Hamas pledges that they eschew violence and favor negotiations with Israel, ended their participation in the talks, and the negotiations came to an abrupt halt.\textsuperscript{98}

In the aftermath of the breakdown, blame was thrown toward both sides in the negotiations. Palestinian negotiators were accused, including by right-wing
Knesset member Danny Danon, of not being concerned with the actual negotiations. Instead, critics said they were only focused on achieving the prisoner release that was stipulated by pre-negotiation agreements. Critics of the Israeli side, meanwhile, also claimed Israel was not interested in reaching an agreement. They claimed that Netanyahu never intended to sign a peace deal, and only used negotiations as a distraction while settlement construction continued. Others did not go this far, but still pointed to Israeli settlement construction as the main factor in the failure to achieve an agreement.

Following the failure of negotiations, three Israeli teenagers were kidnapped and killed in the West Bank. The Israeli government alleged the heinous crime was carried out by members of Hamas. Following collective punishment measures in the West Bank, Hamas began firing rockets towards Israel, leading to a 50 day war. While the war was obviously catastrophic in terms of human cost, this paper does not provide an in-depth report. Instead, the main takeaway from the Gaza war (other than damage to water infrastructure) for this paper is the further deepening of the conflict, which represents the security challenges that would be presented by a two-state comprehensive agreement.

Following the war, Israeli elections were held in March 2015. Fearing strong polling results by the Zionist Union party led by Isaac Herzog and Tzipi Livni, incumbent Prime Minister Netanyahu made a calculated gamble. He appealed to fears among Israelis of an increase in Arab voter turnout, due to the formation of the Joint List, a new cooperative venture between several Arab parties. Most tellingly, he reneged on his previous rhetorical support for a two-
state solution, stating, “I think that anyone who is going to establish a Palestinian state today and evacuate lands is giving attack grounds to the radical Islam against the state of Israel.” The elections resulted in a clear victory for Netanyahu and his Likud party. This vote showed the current thoughts of Israeli voters. The voters chose a leader who, in emphasizing a traditionally security-based narrative, explicitly spoke out against the creation of a Palestinian state. Following the win, Netanyahu claimed that he does not actually oppose a two-state solution, yet his reconciliatory comments were not accepted by the American government.

What the election of Netanyahu symbolizes is clear. Israeli voters were given a choice largely between two governments: one primarily right-wing and the other center-left. The center-left party advocated returning to the negotiating table with the Palestinians and attempting to forge a peace. The right-wing leader stated that he had no intentions of pursuing a two-state solution, and urged Israelis to vote for him to ensure their security. The Israeli public picked the right-wing leader in Netanyahu through elections, showing that, overall, there is no strong popular sentiment toward pursuing a peace deal any time soon. Even more incriminating, Netanyahu beating the latest-available polling data suggests that he probably gained seats at least partially due to his late comments regarding the two-state solution and security.

The popular Palestinian mindset at the current time is mixed. In a landmark survey in June of 2014, during a time of immense tension following the kidnapping of three Israeli teenagers in the West Bank, a majority of Palestinian citizens did not advocate a two-state solution. At this time, only 31% of
Palestinians in the West Bank and 22% of Palestinians in Gaza advocated a two-state solution as a means of ending the occupation. Another important snapshot of Palestinian opinion are the latest polls from the Palestinian Center for Policy and Survey Research. Their most recent polls were conducted in late March 2015, following the Netanyahu election victory. There are many notable findings. 16% of survey respondents supported an unconditional return to peace negotiations, 42% favor returning to negotiations if it meant an Israeli settlement freeze, and 36% oppose returning to the negotiations no matter what. Looking at the recent reconciliation attempts between Hamas and Fatah, 42% were optimistic about the efforts while 54% were pessimistic about the efforts. A slightly encouraging sign is that a slight majority, 51%, supported a two-state solution, while 48% opposed it. However, 60% said that such an arrangement was no longer practical due to Israeli settlement growth. 82% of respondents believed that Israel’s long-term goals include annexing the West Bank and Gaza Strip, while either expelling the population or denying them basic rights. Most of these signs point to a Palestinian public that had mixed feelings about the ultimate desire for a two-state solution, yet is fairly unanimous in the opinion that there is not a realistic chance of achieving it soon.
Why Water Cooperation Broke Down: Looking for Explanations

As previously stated, water cooperation through the Joint Water Commission broke down in 2010. In looking for explanations as to why this cooperation broke down, I studied political events and polling data in the years leading up to the failure of the JWC. As I briefly argue, I believe the most logical explanation for the failure is a low belief on both sides that a two-state solution was obtainable, especially in the short term.

Almost every major political event during the period of 2006-2010 had negative effects on the state of the relationship between the Israelis and Palestinians. First, in 2006, Hamas won free and fair elections. Following political competition, Hamas seized control of the Gaza Strip in June of 2007. As previously detailed, this political separation of the two powers (especially with the violent nature of Hamas) has proved to be a difficult obstacle in reaching a peace agreement. 2007 also saw the resumption of Israeli-Palestinian negotiations with the Annapolis conference hosted by President George W. Bush. Despite early optimism, it quickly became clear to some observers that this new round of negotiations would likely not produce a peace agreement. The mood in Israel around this time shifted, as shown by the figure below. In January of 2006, 37% of Israelis thought that relations with Palestinians were getting worse. However, by July-August of 2007, that number had skyrocketed to 59%.
The bad news continued in 2008 with the first in a series of Israeli-Hamas armed conflicts. The bloodshed was not fatal in terms of Israeli negotiations with the Fatah-led Palestinian Authority, but served to create further instability and uncertainty in the political situation. In 2009, Benjamin Netanyahu was re-elected as Prime Minister. At the time there was a negative feeling about what his election meant for the peace process. Shlomo Brom, Research Associate at the Institute for National Security Studies in Israel, stated, “Netanyahu doesn't believe in the feasibility of a two-state solution and thinks permanent status solutions are a waste of time.” In January of 2009, newly elected President Barack Obama appointed well-respected former Senator George Mitchell as his new Special Envoy to the Middle East, tasked with restarting negotiations between the two sides. However, his resignation in 2011 showed the frustration he felt in his failure to make any progress.
The seemingly negative nature of these developments was concurred by polling data, especially on the Israeli side. While both Israeli and Palestinian support for the concept of a two-state peace solution remained stable between 2008 and 2011, it seems as if faith was lost in the belief of the possibility of a peace agreement in the short-term. This added to the consistent negativity surrounding the possibility of any sort of agreement.

The largest attitude change in this period is the decline in Israeli belief in the ability of American leaders to help negotiate a successful peace agreement. In 2006, 55% of Israelis had belief that President Bush could lead negotiations that would result in a fair peace deal with the Palestinians. However, by 2010, that number dropped to 33%. Palestinians had negligible belief in President Bush consistently throughout this period.114

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<td>Palestinians</td>
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Concurrently, Israelis slowly started to put less importance on reaching a peace agreement with Palestinians. 70% of Israelis in 2006 believed that reaching a peace deal was “very important” to ensure economic prosperity in the country, yet this number decreased to 57% in 2011. Similarly, the respondents who answered “very important” on the topic of the personal safety and security fell
from 81% to 71% during this time period. This overall shift suggests Israelis slowly started to put less urgency on reaching a peace deal with the Palestinians.\textsuperscript{115}

Adding to these dynamics is the general low belief that a peace deal could ever be reached. In a 2012 survey, 64% of Jewish Israelis, 68% of West Bank Palestinians, and 76% of Gaza Strip Palestinians all believed that a permanent peace between the two sides would not be achieved.\textsuperscript{116}
Overall, I argue that there is a correlation between these notable shifts in both political events and attitudes, coupled with a low overall belief in the possibility of peace, and the breakdown of functioning in water institutions.

**Expert Interview Summary**

In order to get a sense of the feasibility of a new water agreement, I interviewed four experts in Israeli-Palestinian relations: Dr. Hani Al-Basoos – Professor of Political Science at the Islamic University in Gaza, Ghaith Al-Omari – Senior Fellow at the Washington Institute for Near East Policy, Shira Kronich – Associate Director at the Centre for Transboundary Water Management: Arava Institute for Environmental Studies, and Dr. Nimrod Goren - Mitvim – The Israeli Institute for Regional Foreign Policies. Please see the appendices for transcripts of each interview.

Overall, the largest takeaway from all of the participants is a lack of hope in achieving anything in the current political situation (with the slight exception of Dr. Al Basoos). Given the breakdown of peace negotiations led by the Americans, followed by the Gazan war of the summer of 2014, each participant felt as if there would be no major deal reached on water, or any issue, without a significant shift in the political situation. This adds to the challenge of finding a method of negotiations in which the two sides could engage on the issue of water.
Ultimately, the opinion of experts led me to believe that a stand-alone water agreement could not be reached on its own. However, this does not mean that a new water agreement needs to be contingent upon a final status agreement. Particularly drawing from the interviews with Dr. Goran and Ms. Kronich, I was led to the idea that if a new round of negotiations is to be commenced, a team of negotiators on both sides should be specifically devoted to reaching a new water deal. The successful implementation of a new water deal should not be contingent upon a comprehensive agreement being reached between the two sides.

Dr. Al-Basoos stressed the necessity of changing the situation in Gaza, and described the current situation as extremely dire, with most water being too salty to consume. In the next few years, he expects the water problem in Gaza to grow to the point where it will be an extreme challenge for both the local and the Israeli governments. He thinks that water should be a humanitarian issue and that a political agreement on water should be based on the livelihoods of people, and not relegated to a final status agreement. While examining the potential for cooperation between the two-sides on water, he points to cooperation on other economic activity as well as Israel opening checkpoints to buy food in Gaza as a sign that cooperation is possible. A possible short-term solution in Gaza that he points to is the creation of a major desalination plant, yet he cites the expansive costs and the need for Israeli approval of these proposed projects as a potential stumbling block. If a new deal were to be reached, he believes it should be based on population needs. However, he believes that Israel would want to control water resources at a proportion similar to which they control land.
Mr. Al-Omari was very negative about the current political situation, and does not picture any agreement being reached in the near future. He believes that both sides will hold back on all issues, including water, to barter with in a final status agreement. In addition, he believes that it would be difficult to reach a water deal before a deal on permanent borders is struck, which would surely take place in a final status agreement. He stated than an interim deal may be possible, but not in the current political climate. If an interim deal were to be struck, he believes both sides would have to be strongly cajoled by the international community. He does see the need for a new agreement on water, based on the amount of time that has passed since the Oslo agreement.

Ms. Kronich was also very pessimistic about reaching a water deal. She stated that the work she does is attempting to find interim solutions on the water issue, and yet she cannot see a situation on a new deal that could function on a state-to-state-level. Any action that is taken, she says, would probably be more unilateral, temporary actions on behalf of the Israelis, which she rightly points out is not exactly something to be optimistic about. One interesting need that she mentions is the need for Gaza’s water distribution infrastructure to be rebuilt, and that a simple increase in allocation by the Israelis would not be enough. If an interim agreement is reached, she feels it would be a disservice to the kind of post-conflict methodologies that should be used in terms of giving Palestinians more autonomy in accessing their water resources. In talking to Israeli government officials, she does feel that they realize the potential for humanitarian disaster in Gaza, and will allow the construction of a large-scale desalination
plant. In the future, she can picture a time when the desperation of Palestinians to access water will be part of the impetus of Palestinian officials to move toward a final status agreement.

Dr. Goren’s comments shed some light on how a possible water deal could be reached. While he agrees with the general consensus that the current political situation is not amenable to any sort of significant deal, he states that deals on issues that are not highly politicized, such as water, can be reached in the context of high-level final status agreement negotiations. While these negotiations are not in session, he states that there is no context for these smaller issues to be worked on. However, he thinks that a large round of negotiations could provide a platform for dedicated teams from each side to work on specific issues, such as water. Dr. Goren believes that any new negotiations would look different than the old system, with the EU playing a more prominent role alongside the US. While there are no negotiations currently ongoing, he still thinks temporary fixes for the water issue are possible.

Conclusions and Policy Recommendation

The need for a revamping of water agreements between Israelis and Palestinians is clear. In the West Bank, residents face intermittent access to water at exorbitant prices. Their limited access to water forces them to pay more for clean drinking water, hurts their health, and stifles their economic opportunities.
The Joint Water Commission, once a symbol of cooperation between the Israelis and the Palestinians, has ceased to function for the past 5 years. In addition, the JWC is flawed in the sense that it gives Israelis veto power over Palestinian access to important water resources, yet Palestinians do not have veto power for water resources that are important to Israel. These conditions have led to Palestinians consuming water at a much lower rate than Israelis.

In Gaza, a water crisis is imminent. Despite the Israeli announcement that they will pump an additional 5 MCM of water a year into the Gaza Strip, totaling 10 MCM, more needs to be done. The infrastructure to deliver water throughout Gaza is in disrepair after the summer war. 90% of water from the Coastal Aquifer, the only domestic source of water, is unfit for human consumption. The aquifer may be unusable by as early as 2016, and the damage could be irreversible by 2020.

Meanwhile, any prospects of striking a comprehensive peace deal in the near future seem nonexistent. The failure of the Kerry-led round of peace talks, followed by the Gazan war, the movement of the Palestinian Authority to join the ICC, and the re-election of Prime Minister Netanyahu seem to preclude an agreement being reached without a major shift in the political dynamics between the two sides. As a result of the continued failure to make political progress, the de-politicized issue of water has not been addressed since 1995, to the detriment of human needs and proper water management.

In researching the issue and talking to experts, I was hoping that I would come to the conclusion that a complete overhaul of the situation should be
undertaken right away, separate from final status negotiations. However, as shown by interviews with experts on peace negotiations and the water management, the political situation at the moment is toxic, and not conducive to pursuing a large-scale agreement on any topic. Taking political realities into account, this paper instead advocates a two-pronged approach. The first is a series of temporary measures designed to ease humanitarian suffering, especially in the Gaza Strip. The second solution is a theoretical proposition if the political context shifts to a point where there are two sides interested in striking a comprehensive peace deal. In this situation, I advocate taking a slightly different approach than what has historically been the norm in negotiations towards a peace agreement.

At present time, the water situation in Gaza and some parts of the West Bank is in need of immediate attention. If there is no significant action taken, the situation in Gaza is threatening to devolve into a humanitarian catastrophe. The Coastal Aquifer is consistently over-pumped and water distribution networks are severely damaged. Currently, many Gazans are forced spend a significant amount of their monthly incomes on water from private desalination plants, which provide water that is not adequately regulated. One of the only feasible solutions to the current problem is the construction of at least one large-scale desalination plant, such as the one currently being constructed by UNICEF and funded by the EU. There are several reasons from a Palestinian point of view to be hesitant of such an agreement, including fears of perpetuating the occupation, further isolation from the West Bank, and environmental consequences. However, if the
alternative is an ongoing humanitarian water crisis and continued over-pumping of the Coastal Aquifer, a desalination plant should be pursued.

An important aspect of ensuring the success of this new desalination plant, as well as the utilization of currently dormant desalination plants in Gaza, is maintaining an adequate electricity supply to run the desalination plants. In addition, electricity is needed to adequately operate wastewater management plants.\textsuperscript{119} Israel must ensure that an adequate amount of electricity is supplied to Gaza to run both the desalination plants as well as the wastewater management plants.

Yet another challenge in ensuring adequate water supply is the need for the delivery of construction materials to Gaza to rebuild damaged water infrastructure. Israel fears that construction material meant for peaceful purposes will be exploited by Hamas to build tunnels into Egypt.\textsuperscript{120} Hopefully, UN monitoring restrictions on the construction materials, as well as a realization by Hamas that they may face significant domestic discontent if the situation in the Gaza Strip does not improve, will ensure that construction materials are used for the correct purposes. I argue that if this is the risk that Israel faces in repairing damaged infrastructure, it is worth taking in order to prevent the deepening of the Gaza water crisis that could produce dangerous, unstable conditions. The deplorable water conditions could ultimately contribute to the outbreak of further war.

While temporary solutions are not ideal, they are necessary to ease the suffering in Gaza, as well as preserve the future feasibility of the Coastal Aquifer
as a usable water resource. The good news is, as evidenced by the additional supply of water and Ms. Kronich’s interview, Israeli officials seem to be taking the water crisis in Gaza seriously. However, the struggle for Gazans to access adequate drinking water has been a long-standing problem, and not much has been done to alleviate the situation. Significant efforts by Israel, as well as funding by the international community, will need to be taken.

While the first prong of my proposed plan seems somewhat obvious, the second suggested plan is a significant departure from how water and peace negotiations have operated in the past.

As I have argued before, two-state negotiations over the past twenty-plus years have reached a stalling point. Faith in reaching an agreement in this manner is extremely low. Political developments have resulted in a situation with several significant impediments in reaching a deal. I also argue that cooperation on water issues has broken down as a result of the lack of confidence in an imminent two-state agreement.

What is needed is alternative methods of seeking an agreement, on both water and comprehensive peace negotiations. Despite decreasing support for a two-state solution, polling data indicates that it is still the desired solution to end the conflict. According to a polling project done by the Zogby Research Services, 47% of Palestinians state the two-state solution is desirable, while 40% of Palestinians think a solution is undesirable. Support is great among Israelis, with 74% stating a two-state solution is desirable, and 23% stating it is undesirable. The difficulty in obtaining a two-state solution is shown by the confidence each
side has in the other’s interest in pursuing a two-state solution. Just 26% of Israelis think that Palestinians are interested in a two-state solution, while 59% are not confident. Similarly, 28% of Palestinians believe that Israelis are interested in a two-state solution, while 68% are not confident. This suggests that there needs to be trust-building actions taken by both sides.

In order to jump-start the peace process and change the pattern of failures in peace negotiations, I argue that the international leaders of negotiations should push a different structure of negotiations. First of all, I argue that negotiations for the sake of negotiations should not be pursued. The continued failure of negotiations, as shown by polling data, decreases the credibility of third parties, as well as of each side, in their ability to deliver a peace agreement. Negotiations should only be started if a shift in the political situation occurs at some point in the near future that would be more amenable to striking a deal. This would most likely be due to degradation of the situation (potentially based on lack of water resources for Palestinians) and a resulting increased domestic pressure, pressure from the international community, or significant leadership change on one or both sides. In addition, the composition of the leaders of negotiations should change. Both sides have shown a distrust in the Americans’ abilities to deliver a satisfying deal. As suggested by Dr. Goren, the EU, the Arab League and the UN could play a significantly larger role in any new round of negotiations.

If these conditions are met (no small feat), and the two sides meet again in peace negotiations led by an international coalition with the stated goal of a two-
state solution, I argue that negotiators should consider holding a negotiation track focused solely on the issue of water. In my proposed method of negotiations, an agreement on water would not be contingent on a final status agreement. Based on previous cooperation and the need for reform that could potentially benefit both sides, I believe that water is the optimal topic to begin with. The water track of negotiations would be held early in the negotiations, simultaneous to the beginning of larger political negotiations. However, it would have an earlier deadline date than the overall track.

If a water deal is reached within the context of larger negotiations, it could serve as a trust-building measure between the two sides to push the tougher political negotiations forward. If a water deal is reached without the completion of a final status agreement, the water deal would at least serve to improve the state of people’s lives on the ground, improving upon a process which has not yet served to improve the lives of the people. In addition, it could help to prevent environmental degradation of key water resources.

Palestinians would obviously be inclined to negotiate on water due to their lack of access to water resources. The challenge for the international community would be properly incentivizing Israelis to reach an agreement on water. The natural motivations of Israel would largely stem from two desires: the first is the desire to avoid groundwater pollution from Palestinian illegal well-drilling and over-pumping. The second is the desire to prevent instability resulting from the inability of Palestinian citizens to access clean drinking water (especially if the situation further deteriorates). The international community, particularly the
United States, could also play a significant role in pressuring the Israelis to negotiate on water. Selling Israel on positive aspects of the water deal will be important.

A potential model for the type of agreement that could be pursued is found in a report by Environmental NGO Friends of the Earth Middle East in November of 2010. The framework they propose is based on a more dynamic model of agreement than the Oslo framework. Joint cooperation on water is extended to all water resources between the two sides, rather than just the resources of the Mountain Aquifer. Water allocation is based on changing population and environmental realities, updating the Oslo Agreements which have not accounted for 20 years of population growth. They propose replacing the Joint Water Commission with two bodies, a Bilateral Water Commission and a dispute-resolution body they name the Water Mediation Board. These boards would consist of an equal number of Israelis and Palestinians, as well as members of a third party.

While this agreement does not necessarily need to be the framework for a new water deal, the principles of the deal resemble what a deal should be based on. The ultimate goal, if a water agreement is pursued as part of a two-state solution, is to end the mechanisms by which Israelis can affect Palestinian access to key water resources, without Palestinians having the same power. A truly cooperative, dynamic water management regime would also encourage greater environmental protection of water resources.
While this strategy of reaching an agreement is less than ideal, the broken state of relations between the Israelis and Palestinians mandates creative solutions from the international community. Unfortunately, I have come to believe through research on this paper that, given the current political situation, it is not possible to reach a water deal without the context of larger negotiations. While the necessary conditions I propose to enter negotiations are seemingly difficult to reach, I believe (and hope) the continued, yet shrinking, public support for a two-state solution, changing demographics, growing international pressure, and the lack of clear alternative options will eventually push the two sides earnestly to the negotiating table. In addition, humanitarian concerns based on the lack of Palestinian access to adequate drinking water could be an important factor in bringing both sides back to the table.

If both sides agree to new negotiations, I argue that in order for the negotiations to have a chance of being successful, new strategies will have to be pursued in order to avoid the repeated failures of the past. While there are several options for new strategies, I argue that starting with water makes sense for multiple reasons: it is not highly politicized, the two sides have shown the ability for some type of cooperation in the past, there is the ability for joint cooperation to be beneficial for both sides (especially given environmental concerns), and the potential opportunity to positively affect the lives of citizens on the ground.
Notes


http://www.washingtonpost.com/world/middle_east/israel-to-let-water-flow-to-west-bank-development-at-center-of-political-feud/2015/02/27/d1b598de-be84-11e4-bdfa-b8e8f594e6ee_story.html


73

http://www.nytimes.com/2011/05/14/world/middleeast/14mitchell.html


122 See Ms. Kronich’s interview


124 See Dr. Goren’s interview

Appendix A

Dr. Hani Al-Basoos: Associate Professor of Political Science at Islamic University - Gaza

ZZ: Do you believe that a water deal separate from a comprehensive peace deal between the Israelis and the Palestinian Authority is possible?

HB: Yes, it is possible. But taking into consideration the political situation now, it is not realistic now, but it may take time. It is a question of will, not if it is possible or not. The water issue has been one of the most problematic to the Israeli side. There is a large shortage of water in Gaza, maybe not as bad in the West Bank because of the large water resources and the lower population density. Water consumption is much less in the West Bank, and the water is much more pure. In the West Bank there is definitely the possibility of a deal, given the assistance of Mekerot. In Gaza the possibility is much less, given that Gaza is a coastal area, the water in Gaza is highly mixed with sea water that makes the water unfit to drink. Desalination technology is not available to cleanse the water. Clean drinking water is not available to all people, instead they have to buy from desalination companies, which costs money. Demand for these will only grow over the next few years because clean water resources are running out, so there is a need for an agreement with the Israeli side, because clean water could be a way for Israel to provide people with a source of life. There is a need for a political agreement on water, even if it is separate from a two-state solution. Water is needed because of the lack of technology and clean water resources. People are not feeling this need now, because you can buy water in cities, but in a few years the demand will increase. Politicians are not really aware of the situation because they are looking at political issues and confrontation with the Israeli side rather than the needs of the people, which include water. The agreement will need to be done with the PA, rather than political factions. Maybe the West Bank is not as dire, but it is definitely needed in the West Bank. There was talks of a major desalination station in the Mediterranean, but it is very expensive and requires Israeli approval, like any projects in Gaza. This agreement needs to be away from politics, because it concerns the livelihoods of people. Despite the fact, that water has been and Final Status Issue, and to me this is not fair. It is too important and needs to be dealt with separately.

ZZ: Do you think that such a deal would be an effective political move for both the Israeli and Palestinian governments?
HB: I don’t think it will be effected, because it is not a security issue, not a major border confrontation, it is about everyday needs for both populations. It is something that is an issue for both peoples, we share both the sources of water. You can look in the West Bank with settlements and Palestinians side by side sharing water. Palestinians do not have the ability to dig down in the ground, yet Israelis have this water. For the Israeli side, it should not be political, it should be humanitarian, based on social and life needs. It should not be up to debate, an agreement should come sooner rather than later.

ZZ: Do you think that such a deal has the potential to lead to increased cooperation between Israelis and Palestinians on other issues?

HB: I think so, yes, cooperation could begin with water economy, and other aspects of public services, especially economy and water issues. Economy-wise there has been cooperation on both sides. Even in Gaza, Israel has opened up checkpoints for people to buy food and other goods from Israel and the West Bank and bring them to Gaza. In the West Bank, same thing. This is called Economic peace. When it comes to water, this is not up to debate, it should be a humanitarian issue.

ZZ: Do you have a sense of what the content of would contain?

HB: I think it should be based on sharing the water resources based on the needs for both societies. This should be the basis, but I don’t think the Israeli side would accept, because the size of the land shared between the Israelis and the Palestinian side, you see Palestinians having control of about 10% of the whole area, while Israel controls 90% of mandatory Palestine. If it is based on land, Israel will have 90% of water with Palestinians 10%. If it is based on population needs, I think it would be more 50/50, or even 40/60, because the Palestinians in the WB and Gaza are about 4 million while Israelis are 6 million. But I don’t think Israelis will agree with this, because you see where the PA has control it is only 10% of the land. But I don’t think even the water resources have been used completely based on the side of the land, but a little more on need. You see this in Israel, with Tel Aviv and Jerusalem and other places where the water is used in these cities. You see water resources available in other areas, but they are not used. This would take some work on areas that are not populated. But this goes back to the political question of how the water would be shared.
Appendix B

Ghaith Al-Omari: Senior Fellow at The Washington Institute for Near East Policy

ZZ: Do you believe that a water deal separate from a comprehensive peace deal between the Israelis and the Palestinian Authority is possible?

GO: If you want to look at this substantively, well actually, let me take a step back. First of all, politically speaking, it is very hard to see that, because the Palestinians and Israelis tend to hold back on these issues until they reach to produce a formula for final peace negotiations. So to have a complete agreement would be unlikely. Secondly, so this is politically speaking. Now, substantively speaking, any final water agreement would be dependent on a borders agreement. Because allocation of water resources is based on what resources are under your territory and what resources are under the other country’s territory. So it would be difficult to have a final water agreement until there is a final borders agreement. So the question that is in my head about this is, is there a deal that is possible that is interim in nature? And that, I think, substantiually is possible but politically is unlikely.

ZZ: Do you have a sense of what such an interim deal would look like?

GO: Actually, I’m not sure, this is not my issue. A lot of the substance would come down to the technical issue of how you allocate water rights, and in this, international law is not very clear. I think that, with international law being unclear, I think it is unclear what any interim deal would look like.

ZZ: Do you believe that a deal separate from a comprehensive peace deal on any subject would be possible or desirable for either side?

GO: I actually think that given that … I think anything that could be agreed on at this point, would have both sides, the Palestinian and the Israelis. But you have to keep in mind that certain issues are interlinked. And accordingly would be dealt with in a package deal. However, I think it’s important to identify issues that have been agreed on in the past that can be renegotiated and rethought on the interim aspects of these deals. Oslo was negotiated about 20-some years ago, and I think it’s there are differences since then that should be taken into account.

ZZ: Politically selling to their own sides?
GO: I actually think the two sides, left to their own devices, would not reach a deal. With both sides, there is no political incentive to negotiate. This is where they need to have the international community push them to a deal.

Appendix C

Shira Kronich: Associate Director at the Centre for Transboundary Water Management

ZZ: Do you believe that a water deal separate from a comprehensive peace deal between the Israelis and the Palestinian Authority is possible?

SK: I don’t think so.

ZZ: Do you think that’s because the nature of water politics itself, or do you think that’s a reflection of the politics of the situation?

SK: I’m not able to say from my experience that a solution is possible that is not part of a comprehensive agreement between the states. I don’t see a water agreement being reached outside of kind of the mechanisms that are forced on the situation, some sort of management by the Civil Administration and the Joint Water Council that theoretically works but doesn’t actually, practically allow projects to move forward. Even if, I just feel very contradictory, because the work I do is about finding interim solutions, but I don’t think that a water agreement at a government or state level between the two states would be reached between the two-states before a final status agreement. I think it’s a justice issue, it can’t be ignored, I think reparations need to be made about the lack of water supply and access to water resources for the Palestinians, but I can’t imagine an agreement outside a final status agreement.

ZZ: Is there any issue that you think a comprehensive deal could be reached on, or do you think that it is the nature of the political situation as it is now that a new deal won’t be reached until a final status agreement is reached?

SK: It’s tough for me to compare, because I don’t work as deeply in other fields, but I think there is an added political element to the water agreement. I think that other comprehensive agreements, as you call them, can be made in a more bilateral approach between both riparians or both states to jointly decide on management is potentially possible in other fields before a comprehensive solution just because of its practically necessary because of the practicality of it,
but with the water because it effects development, but so do other environmental issues.

No I don’t think so, I think all solutions which will be found in the interim would be more unilateral than bilateral. We can develop interim solutions that promote food security, water security, livelihood security but I think they’re all temporary and a compromise on what can be done if we move towards post-conflict development and methodologies that have more autonomy on the Palestinian side.

ZZ: Do you see Israel, any time soon, taking any of these unilateral actions, in respects to water, such as they did with Gaza?

SK: I hope to be wrong in that we’ll see the results on the ground looking different than those agreements or statements, but the reality on the ground in Gaza in terms of the water situation is very dire, separate to kind of those claims. So I’m not sure if those will be effected, I’m waiting to see when this new water is supplied, how it is distributed when the infrastructure has been so desperately taken apart. The situation in Gaza with water needs very serious investment in infrastructure in terms of a massive desalination plant. I think anything other than that is a very Band-Aid solution.

ZZ: Do you see, in the future, UNICEF announced a massive desalination project which is supposed to be online in 2016, do you think that that desalination plant will come online or are you optimistic about any other desalination project?

SK: I think the Israeli government, from the water sector perspective, so these are the Israeli government officials that I have more interaction with other than what is reported in media, I think that they recognize that something very substantial needs to happen very soon. So I am slightly more optimistic about it, but it’s hard to call it optimistic, because the government and the political situation has allowed it to become so dire that there isn’t any other solution than to invest in massive infrastructure for Palestine, specifically in the Gaza Strip. So I do actually think that we have no other solution and a large-scaled desalination plant will be built in Gaza and, like you said, allocations will increase, because distribution systems are so malfunctioning that they can’t rely on the quantities they used to, and will have to increase the quantities. So, it is kind of as a result of things getting much worse that it requires a universal kind of decree, so I’m not sure that we can claim that that’s a positive response to the situation.

On the other hand, I’m hearing from mainly Palestinian sources that this will be part of the impetus towards a more final status agreement, because we can’t keep the status quo as an interim solution. So maybe, in the end, similar in Gaza, the desperation of the situation will force forward a political agreement.
Appendix D

Dr. Nimrod Goren: Chair, Mitvim – The Israeli Institute for Regional Foreign Policies

ZZ: Do you believe that a water deal separate from a comprehensive peace deal between the Israelis and the Palestinian Authority is possible?

NG: And you’re talking about a big water deal or just things along the way?

ZZ: Both I’m examining a big water deal, and that right now seems pretty impossible with the political situation, but also an interim deal in the short term as well, whatever you think is possible.

NG: You can get some reach some understanding on some ad hoc issues, but the higher level water strategic issues will be related to the higher political issues eventually, they are not moving forward without progress on the official negotiation track. What is going forward is usually involving both sides and also Jordan, so it’s not merely bilateral but it’s in a regional umbrella, in Israeli-Palestinian-Jordanian projects. There’s the project on the Dead Sea, on issues that are less politically divisive.

ZZ: Do you think that reaching a smaller deal would be an effective political move for both the Israeli and Palestinian governments in selling to their domestic constituencies?

NG: I think it’s mostly for the Palestinians to benefit for the deal, because they have the greater need. I don’t think Israel is willing to give up what the Pals are asking for, because they don’t want to benefit the Pals while they are pursuing international actions. So with some issues, not necessarily water, mutual agreements reached before the political progress is sometimes conditioning. Agreements to give the Palestinians taxpayer money, or other issues, may change Palestinian policy in the international arena. Part of the Palestinian society, I think the will among the population is to see a political revival. It’s not only about the here and now, but also to see hot it leads to a more significant change in terms of politics. For example, the city of Rawabi, the fact that it is not connected to water, the basic aspects of the water issues are not moving forward, and are being tied down to Palestinian movements internationally. So, the prospects to move forward on the bigger issues is not there at the moment.
ZZ: Do you think that a deal on a smaller issue, such as water, could lead to enhanced trust and progress on the bigger political situation?

NG: I think it can be done only in a different political context. If we are talking about smaller steps that should help trust and confidence building measures to assist in more difficult negotiations, that makes sense. But now, you even do not have a negotiation process going on, then the smaller issues cannot be a substitute. For example, at the current time, which you do not even have bilateral negotiations going on, the ability to move forward on the smaller issues is less so than if you have negotiations that are not going anywhere because within the context of political negotiations you can have teams working on the smaller issues. Having some sort of negotiation process on the final status issues gives legitimacy to make progress on the smaller issues. Once you don’t have the final status agreement negotiation going on at all then the smaller issues are frozen. Because there is no legitimacy for either side to move forward on those issues. Or no context that makes sense to move forward, and the culture on between the sides becomes very combative. It turns into a zero-sum-game, and then they do not look for areas of cooperation but rather it’s one side wins over the other. So, one of the answers is to find a way to make progress on the bigger political issues and then make progress on the smaller ones.

ZZ: So in starting the progress on the big issues, do you think that the best way to move forward is an internationalization of the conflict, with a bigger role for the EU? Or do you think it will be classic United States-led? What do you think is the best way to change the political context?

NG: The prospect for renewed negotiations is not high at the moment, because the leadership on both sides are not interested. The expectation now if for the IC to take some steps. The question is whether the IC would be led by the US as before if will the EU a bigger say? I think it will be a US dominated process that gives the EU more space. Because, it’s a bit convenient for the Americans to have the Europeans, for example, put more pressure on Israel. It is something that the American administration, even, perhaps behind closed doors encourages the Europeans to do because they cannot do it themselves. So it’s better for US diplomacy to have EU label settlement products, a move which the US could never. So it’s like the leading from behind thing. The US is very much there, but sometimes it’s more convenient to have a European, like the French for example, draft the UN resolution and not the US. It has to be a more combined effort now, it can’t just be the Americans it also has to be the Arab League, the Arab Countries, the Europeans, and the Americans, and the UN is coming a much more important vehicle for which this international coordination can be carried out.