

When Ambiguity in Treaty Design Becomes Destructive: A Study of Transboundary Water

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1. Introduction

Deliberate ambiguity in international agreements has become for many a tool to reconcile contradictions that are often passed off in memoranda of understanding and peace accords.¹ The use of ambiguities to defuse conflicts has also been seen in agreements pertaining to the settlement of transboundary environmental disputes, and to water in particular.² Ambiguity is often based on the premise that vagueness is required to bring treaties to closure and that the resulting ambiguity can be clarified at some time in the future.³ This “constructive ambiguity” assumption is the legacy of many great diplomats, including former US Secretary of State Henry Kissinger and Israeli statesman Abba Eban,⁴ who often wrapped controversial issues in the Middle East in language that could mean one thing to one side and something else to the other.⁵

The success of ambiguity in bringing disputes to closure can now be found in a range of disciplines. Indeed, there is general agreement that it is not to be dismissed as a random error in decision-making; rather, ambiguity is intentional and often desirable, as it has several merits besides defusing conflicts. Economists, for example, advocate its use because of its ability to reduce the high transaction costs often associated with negotiating and implementing contracts.⁶ Theories of rational choice promote ambiguity to address uncertainty by allowing players to change their attitude and preferences without the need to renegotiate treaties.⁷ Similarly, several studies in International Relations that examined the often-ambiguous stand of the US in its foreign policy concluded that ambiguity gives the superpower more flexibility to respond to dangerous

1. Klieman 1999; Ikle 1964; and Stone 1988.
2. Giordano 2002; and Dinar 2005.
3. Fischhendler forthcoming.
4. Eban 1983.
5. Isaacson 1992, 481–482.
6. Williamson 1985; and Hart and Moore 1988.
7. Fischhendler 2004.

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situations. Zhongqi and Benson and Niou,⁸ for example, argue that the US, in order to maintain the peace between China and Taiwan, deliberately made vague the level of its response to an unexpected move concerning the Taiwan Strait. Legal scholars also suggest that ambiguity and uncertainty in court sanctioning (such as in the size of a fine) may achieve greater deterrence than certain, predefined sanctioning.⁹

However, there are also indications that ambiguity may have detrimental implications, especially during the implementation phase of agreements. For example, Klieman,¹⁰ in his study of the collapse of the Oslo Accords between Israel and the Palestinians, has argued that the strategy of ambiguities, while lending support to the ratification of the agreements, also reduced the flexibility required to implement them. Several studies on water negotiations emphasize that settling a water allocation dispute based on contradictory resource-allocation principles is unproductive and may result in protracted disagreement.¹¹ Even the 1997 UN Convention on the Law of the Non-Navigational Uses of International Watercourses has been called into question due to its widespread use of vague and sometimes contradictory language.¹²

The aim of the present study, rather than exploring why agreements are ambiguous, is to determine when ambiguity might become destructive in the course of agreement implementation. In doing so, the study will identify the factors that drastically increase the cost of ambiguity, measured by a set of indicators calculated during the implementation process of an agreement.

It will be argued that the clarification of disagreements based upon ambiguity does not occur in a vacuum. Rather, it occurs in the context of prior assumptions, unforeseen external events and interest groups. Hence, each interpretation given to ambiguity is likely to have distributional implications that, if not accommodated, may cause controversy, which itself may then spill over into other high-political issues and possibly balloon into a conflict. The negative effect of increasing water scarcity coupled with decreasing political stability on the ability to clarify the ambiguities during the implementation phase of the Israeli-Jordanian water agreement is used as a case study.

The paper begins by identifying the early signals of ambiguity hazards. Section two outlines the methodology of the study. Section three discusses the Israeli-Jordanian case study itself. It reviews the history of the water conflicts between the two states over the Jordan River, and then identifies the main ambiguities and their role in bringing the water treaty negotiations to a close. Next, the paper reviews the attempts to clarify ambiguity in view of new background conditions and presents the evolution of a disagreement over ambiguity to a situation of conflict. Finally, a rudimentary model is presented, showing when and

8. Zhongqi 2001; and Benson and Niou 2000.

9. Baker et al. 2004.

10. Klieman 1999.

11. Shamir 2003; and Dinar 2005.

12. UNEP 2002, 5.

how ambiguity may become destructive in regulating the use of transboundary natural resources.

2. Early Signals of Ambiguity Hazards

Despite the vast literature on the merits of ambiguity, there are indications that incomplete agreements hold perils. Myers¹³ may have been the first to make such observations in his study on “treaty violation and defective drafting,” which warned that successful implementation of agreements often depends on parties accepting the same meaning and sense of agreements. Implementation problems are likely to erupt when one party, knowing its opponent’s interpretation of ambiguity, may state that it had in mind a different interpretation.¹⁴ Or, one side may exploit the ambiguity for future bargaining, a situation Ikle refers to as a pseudo-agreement. Indeed, we now know that nations often deliberately sign overlapping and even conflicting agreements concurrently in order to improve their negotiating positions in other ongoing processes, and even to circumvent obligations under other agreements.¹⁵ Abusing ambiguity to create loopholes in agreements may result in “institutional freeloaders,” who leave it to others to take costly actions (to reduce greenhouse gases or pollution in a shared lake, for example) on the pretense of a different interpretation of the treaty. It may also increase the uncertainty in predicting the different players’ responses to new events, as was found empirically in the Israeli-Palestinian case.¹⁶

Abbott and Snidel¹⁷ warned that these cases of treaty violation might characterize regimes based upon soft laws (themselves based on informal or oral agreements) that, although reducing the bargaining cost, may increase the post-agreement costs of managing and enforcing commitments due to differing interpretations. Likewise, Lipson,¹⁸ while stressing the merits of informal agreements, suggested that if disputes arise later it is often difficult to specify *ex ante* what was intended because of the vast ambiguity in the agreement and because domestic courts often refuse to recognize oral agreements. This, then, creates an incentive to avoid oral and ambiguous bargains. Hull and colleagues,¹⁹ in their study on negotiating environmental standards, added that even if agreements are not violated, their built-in ambiguity may leave the public skeptical of environmental professionals who ignored (or, worse, waived) the need for better-defined environmental standards.

Often it is the ongoing Middle East process that captures much of the attention on the use and misuse of ambiguity. Despite the many scholars who

13. Myers 1917.

14. Ikle 1964.

15. Rosendal 1999; and Young 2002.

16. Resnick 1998.

17. Abbott and Snidel 2000.

18. Lipson 1991.

19. Hull et al. 2003.

have stressed the positive side of ambiguity in the Middle East conflict,²⁰ others have highlighted its possible dark side. For example, Brynen,²¹ while studying the broad use of ambiguity in reconciling the conflicting options in the Refugees Working Group, noticed that it caused a tendency to lowest-common-denominator outputs and pronouncements. Maoz,²² exploring the effect of Israel's ambiguous nuclear policy on Middle East stability, also highlights the detrimental implications of that ambiguity. He found that not only does ambiguity not provide an effective deterrent against an all-out attack by an Arab coalition, it also prevents open discussion of the logical and operational pitfalls of Israel's nuclear policy. Finally, Lebow²³ described Kissinger's attempt to negotiate an Egyptian-Israeli cease-fire during the 1973 War without realizing that a procedure for cease-fire implementation had not been agreed upon. Lebow suggests spelling out agreements in detail, as was indeed done in the Israeli-Palestinian interim agreement.²⁴

To counter the adverse effect of ambiguity that would leave us in an intolerable state of "anything goes," Zahariadis²⁵ stressed the public policy constraints and inhibitions that will seek to obtain unambiguous arrangements. Yet, if ambiguity is still adopted, one of the tools that might be used to mitigate its adverse effects is the addition of mechanisms that can help to clarify the ambiguity or reduce the uncertainty associated with it. This may include conflict-resolution mechanisms or even just a joint committee that can set the floor for further negotiations. Another option is to condition progress in the implementation of agreements upon definitive, unambiguous actions by the other side. One example in the Israeli-Palestinian case is Israel making territorial withdrawals contingent upon the absence of attacks from the Palestinian side.²⁶

Even if these mechanisms are not included when international regimes come into existence, they can gain an independent life of their own, changing the rules of the game and initiating further steps to push issues forward.²⁷ These smaller steps (often called a gradualist approach) may permit new and more stringent mechanisms to manage uncertainty and ambiguity.²⁸ In other words, falling short of a final treaty that includes all of the necessary mechanisms to clarify ambiguity does not constitute a failure—it may even be considered a success when the longer-term perspective is taken. The case of the US-Canada regime to govern their transboundary waters is one example of this gradualist approach to allow regimes to evolve and to clarify ambiguity.²⁹

20. Pruitt 1997; and Isaacson 1992, 481–482.

21. Brynen 1997.

22. Maoz 2003.

23. Lebow 1996, 150–157.

24. Interview with Noah Kinarti, Head of the Israeli Negotiation Team in the Israel-Jordan Peace Talks. Moshava Kinneret, 10 August 2005.

25. Zahariadis 2003.

26. Resnick 1998.

27. Snidal 1996.

28. Abbot and Snidal 2002.

29. Fischhendler and Feitelson 2005.

However, these mechanisms, if included, do not necessarily guarantee the ability to clarify ambiguity since not all contracts are adjustable and the adjustment cost is often too high.³⁰ The case of the ongoing water conflict on the Rio Grande between the US and Mexico is one example. In this case, the option of treaty renegotiation or adjustment was blocked, as many of the resolved issues that once were contentious could be reopened.³¹

In order to understand when ambiguity becomes destructive, the next section aims to explain the methodology for identifying the factors that drastically increase the cost of clarifying the ambiguities in the Israeli-Jordanian water treaty, which is part of the peace treaty the two sides concluded in 1994.

3. Methodology: An Indicator Perspective

Following the neo-Malthusian premise that conflicts over natural resources can be expected as a result of resource availability,³² indicators are often used to predict how conflicts may erupt; indicators of the degree of scarcity or abundance of natural resources may be used to predict and model social and political conflicts.³³ Similarly, an indicator approach has been used in water governance studies, but surprisingly with more emphasis on institutional variables (rather than physical ones) as a cause of escalated tensions—for example, the capacity of existing institutions to absorb physical variability,³⁴ the relations between states and the ability to de-link the conflict over the natural resources from the general high-political conflict.³⁵

An indicator perspective is also used in this study to assess the cost of clarifying ambiguities. Costs are measured in terms of the seniority of officials involved, the types of issues linked to ambiguity, the types of diplomatic acts surrounding the controversy, and the nature of the forum in which the ambiguous issues are discussed. Table 1 presents these four indicators for assessing the cost of ambiguity and conceptualizes how they may vary. When ambiguity is discussed at the technical level by low-ranking officials, is unlinked to wider issues, takes place in the absence of diplomatic threats, and occurs in a forum specifically designed to handle it (left end of the table), it is assumed that ambiguity has a low cost. However, when the controversy around ambiguity involves officials at the most senior levels, becomes linked to high politics, is accompanied by hostile acts, and is discussed at a high-profile event such as a peace summit, the premise is that the cost of ambiguity increases dramatically (right end of the table).

Measuring the cost of clarifying ambiguity is based on the content analysis

30. Wernerfelt 2004.

31. Fischhendler et al. 2004.

32. Homer-Dixon 1991; and Gleick 1993.

33. De Soysa 2002; and Humphreys 2005.

34. Yoffe et al. 2003.

35. Wolf 1997.

of many of the protocols of the Joint Water Committee, which was set up as the forum to address disagreements, including the interpretation of treaty ambiguities, and on the correspondence between the main Israeli players. In addition, personal interviews with key policy makers, especially on the Israeli side, were conducted. This analysis will also help to show when ambiguity becomes destructive as the factors that drastically increase the cost of ambiguity will be identified. Special attention will be given to political and physical changes in the background conditions that affected the regime performance given the multiple ambiguities in the treaty to govern the shared water. Tracing how the players were affected differently by the new background conditions will also help us to understand how the resulting changes were construed differently as the causes of destructive ambiguity.

The story line of changes in the cost of ambiguity (based upon the indicators mentioned above) is depicted in Figures 2–5. By understanding the dynamic relationship between ambiguity in agreements and its long-term costs, it is possible to identify when ambiguity may become destructive.

4. Case Studies

4.1 Background to the Agreement

The Jordan basin drains an area of 18,000 km² [Figure 1]. The headwaters of the Jordan River start in southern Lebanon (Hasbani River), northern Israel (Dan River) and Syria (Baniyas River). These three spring-fed rivers merge at a point 6 km south of Israel's northern border to form the upper Jordan River. The upper Jordan empties into Lake Kinneret (the Sea of Galilee), the main storage reservoir in the basin. South of the lake the Jordan joins its main tributary, the Yarmouk River. The Yarmouk rises in Syria and Jordan and forms the international border between those two states. South of the confluence with the Yarmouk, the Jordan River flows through the Jordan Valley to the Dead Sea, where it forms the border between Israel and the West Bank, now partially under Palestinian control. The Jordan River, despite its relatively small water discharge, represents an important component of the water budget of the riparians. The Yarmouk, for instance, provides Jordan with almost 50 percent of its surface water that is used both for municipal use, in Amman, and for irrigation along the Jordan Valley.³⁶ The annual flow of the river varies from around 200 million cubic meters a year (mcmy) in dry years to up to 1000 mcmy in wet years, with an average of around 500 mcmy.³⁷ These fluctuations further increase the dependency of both sides on the river flow, especially in the case of Jordan whose economy is heavily dependent on agricultural production.

By 1951, three years after the establishment of Israel, Israel and Jordan

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36. Al-Kharabsheh and Taany 2004.

37. Exact 2005.

Table 1
Indicators of How Ambiguity Becomes Destructive

<i>Indicator</i>	<i>Costs of ambiguity</i>						
	<i>increase</i>	<i>destructive ambiguity</i>					
Level of involvement in ambiguity	Technical	Senior technical	Semi-technical	Ministerial	Senior-level ministerial	US media-tion	Prime ministers
Ambiguity-linked issues	None	Water	Low politics	High politics			
Nature of controversy around ambiguity	Request to settle the issue	Exchange of views	Official exchange of positions	Diplomatic threats	Negotiations broken down	Hostile acts	War
Forum addressing ambiguity	JWC—(body designated to clarify ambiguity)	JWC task force	Water peace team	Ministerial meeting	Senior-ministerial meeting	Peace summit	

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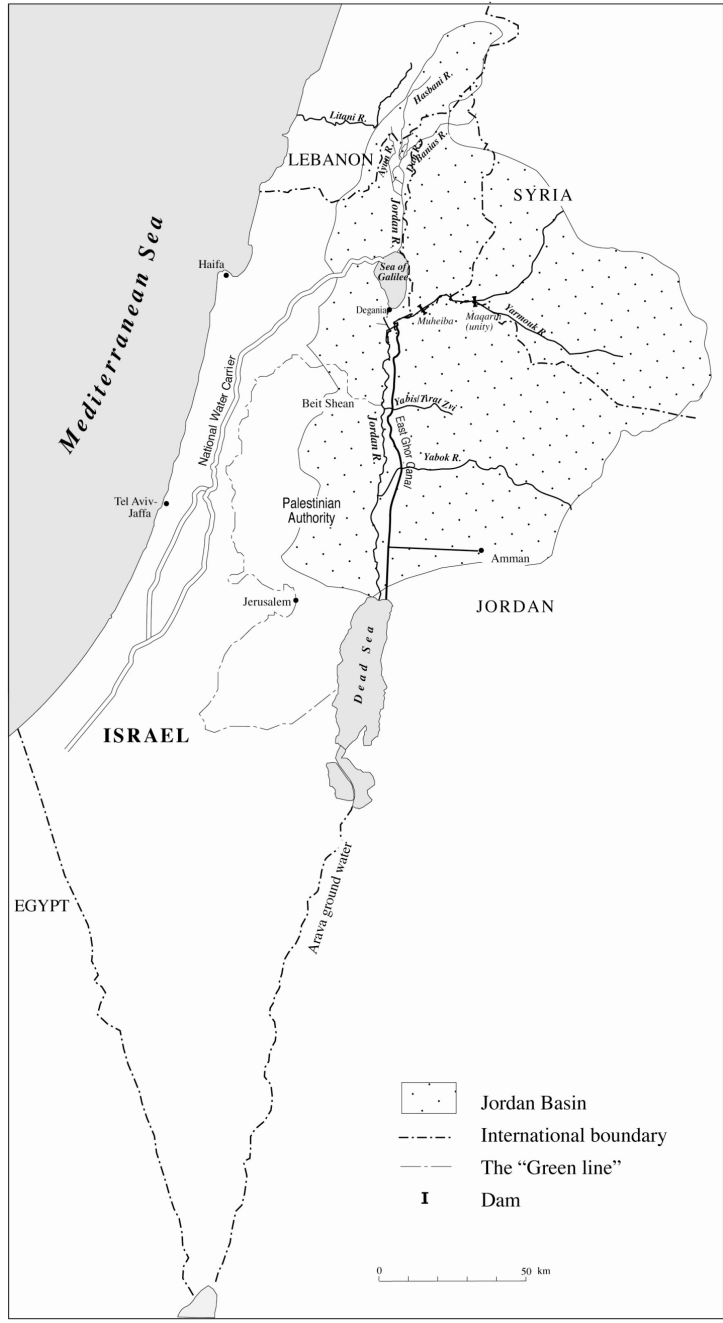


Figure 1
Main Geopolitical Units of the Jordan Basin

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each announced unilateral plans to develop the Jordan Basin. Israel planned the diversion of the northern Jordan River, through the construction of a carrier, to the Coastal Plain and Negev Desert.³⁸ Jordan opposed this out-of-basin water transfer and instead announced a plan to irrigate the Jordan Valley by moving the Yarmouk into a canal 75 km long (the Ghor Channel, later called the Abdullah Canal). As Israel started implementing its plan, a series of border clashes erupted between it and Syria. These clashes in 1953 escalated to an armed conflict.³⁹

Given the unilateral plans of the two states, US President Dwight Eisenhower appointed Eric Johnston as a special envoy to the region. His mission was to attain a regional agreement between riparian states Jordan, Lebanon and Syria on the division of the waters of the Jordan and Yarmouk rivers. Johnston proposed a water plan (often called Main Plan), but the countries involved quickly rejected it. In 1955 Johnston came back with a new plan that, although supported by Jordan,⁴⁰ collapsed when the Arab League failed to approve it.

In the aftermath of Johnston's failed mission, Jordan devised its Greater Yarmouk project. Jordan and Syria also began construction of a diversion plan to prevent the Jordan River headwaters from reaching Israel. Disagreements and lack of funding delayed this plan. Israel, meanwhile, proceeded with its plan to integrate all the country's water resources into a comprehensive countrywide network called the National Water Carrier, which was established in 1964. These unilateral water development projects created tension among the neighboring states and led to an exchange of threats. Between 1964–67, these political clashes developed into several military confrontations.

Despite the past friction, the Israelis and Jordanians often met to discuss and regulate the water sharing on the Yarmouk, which had to be frequently adjusted because of the Syrian abstraction of the flow upstream.⁴¹ Yet, as long as the high politics of the regional conflict over territory and refugees was not resolved, talks over water were never institutionalized into a treaty and were always restricted in their scope.⁴² A change in relations occurred when Israel and Jordan entered direct negotiations, following the Madrid Peace Conference in 1991.⁴³ Two parallel negotiating tracks—the bilateral and multilateral tracks—were established at the peace conference. The bilateral track was between Israel and each of its immediate Arab neighbors, with the aim of achieving peace treaties. The multilateral track focused on key issues that concern the entire Middle East and that might serve as confidence-building measures.⁴⁴ The bilateral negotiations between Israel and Jordan intensified the moment it became clear that Israel and the Palestinians were about to sign the Oslo I Accord. They concluded

38. Naff and Matson 1984.

39. Wolf and Ross 1992.

40. Nimrod 1966.

41. Haddadin 2001, 259.

42. Lowi 1993.

43. Shamir 1998.

44. Peters 1996.

three years later, with the signing of the Israeli-Jordanian peace treaty in October 1994; Annex II of the treaty pertains to the two countries' shared water along both the north and south border. The provisions of the treaty were to be implemented through a Joint Water Committee (JWC) that was established under Article VII of the Annex.

The next sections identify the ambiguity in dividing the border water in the 1994 treaty.

4.2 *Ambiguity in the 1994 Treaty and its Role*

Annex II to the treaty outlines the division of water along the Israel-Jordan border, including waters of the Jordan River and the Yarmouk River and groundwater in the Arava. The agreement provides Jordan with a water package of three components, each with 50 mcm.

The first component was to come from the Israeli use of the Yarmouk, which allowed Israel to pump an additional (20) MCM from the Yarmouk in winter, in return for Israel delivering to Jordan, in the summer, 20 mcm of water. Although it was clear that this exchange would be provided from Lake Kinneret, at Israel's insistence the lake's name was not mentioned in the treaty, so as not to allow Jordan to present itself as a riparian there. Instead, the treaty stated that the source would be "from the Jordan River directly upstream from the Deganya gates on the river" (Article I(2)(a)). Who was to bear the capital cost of these waters was also not specified, as Jordan did not want to share the cost and Israel assumed that it would be borne by the international donor community.⁴⁵

As part of the first component on the Jordan River, Jordan is entitled to an annual quantity of 10 mcm of water from the desalinization of saline springs now diverted to the river and not used. Since Israel was not sure that the source of this water would be desalinization, nor did it want to irreversibly bind itself to funding on this matter, the treaty stipulated that Israel's role is limited to exploring the funding of such a venture.⁴⁶

The second component of the package was based on the construction of two storage dams, one on the Yarmouk and the other on the lower Jordan. Disagreements on the storage location and capacity on the lower Jordan resulted in allowing Jordan to store a minimum average of 20 mcm of flood waters (Article I (d)), though the meaning of "minimum average" and the location of the storage were not defined by the treaty. This component also entitled Jordan to an annual quantity equivalent to that of Israel on the lower Jordan, as long as this would not harm the existing Israeli uses (Article I(c)). Again, how much water was actually available on the lower Jordan and the meaning of "not harm" were

45. Interview with Noah Kinarti, Head of the Israeli Negotiation Team in the Israel-Jordan Peace Talks. Moshava Kinneret, 10 August 2005.

46. Interview with Daniel Rizner, Legal Advisor of the Israeli Negotiation Team in the Israel-Jordan Peace Talks. Jerusalem, 1 September 2005.

not determined by the treaty. Nor was it specified how the water would be divided on both the Jordan and Yarmouk rivers during a drought, except in a mutual assistance clause—whose meaning was not defined (Article, 6(4c)). The absence of clear specification of the quantity of water available on the lower Jordan River and of the meaning of the term “no harm” has allowed Jordan to claim an increase of 40 mcmy in the water it receives from Israel,⁴⁷ while from Israel’s perspective no water was conceded to Jordan since its own existing use precedes that of its neighbor.⁴⁸

The third component of the package included the supply of an additional 50 mcmy of potable water to Jordan. This issue became a major obstacle to the agreement as the sides could not agree on either the water origin or how the cost of the additional water would be divided.⁴⁹ The assumption that the funding would be provided by the donor community resulted in leaving the source, the timing and the cost-sharing of the water to later negotiations, following the ratification of the agreement.⁵⁰

Along the southern border, in the Arava/Araba, the treaty allows Israel to retain the use of its existing wells on the Jordanian side of the border (Article IV (1)) and even to increase its abstraction rate by up to 10 mcmy over five years (Article IV (3)), conditional on not appreciably reducing the yield or quality of these wells (Article IV(1)). The period of Israel’s use of the wells, its existing uses, the meaning of “appreciably” and whether Israel is entitled to drill new wells were not defined. Similarly, the issue of whether the water Israel conceded to Jordan on the Yarmouk and Jordan Rivers were in return for the water Jordan conceded to Israel in the Arava/Araba was not addressed by the treaty.

Presenting many of the agreement details ambiguously allowed each side to bring a compelling agreement to its parliament in the face of strong internal opposition.⁵¹ Since it is often the domestic scene that determines the “win sets” of acceptable solutions,⁵² the ambiguity stymied much of the domestic opposition to the agreement.⁵³ However, subsequently, the same ambiguity left unclear the water source, time of water allocation, amount of water allocated and the cost-burden of water allocation (Table 2).

The next section examines when and how the ambiguity around the additional 50 mcmy became destructive.

47. “Jordan gets 215 cubic meters of Water,” *Jordan Times*, 19 October 1994.

48. Interview with Noah Kinarti, Head of the Israeli Negotiation Team in the Israel-Jordan Peace Talks. Moshava Kinneret, 10 August 2005.

49. Interview with Noga Blitz, Head of Water Supply Department, The Water Commission. Tel Aviv, 6 September 2005.

50. Interview with David Shatner, Member of the Israeli Negotiation Team in the Israel-Jordan Peace Talks. Tel Aviv, 15 August 2005.

51. Interview with Daniel Rizner, Legal Advisor of the Israeli Negotiation Team in the Israel-Jordan Peace Talks. Jerusalem, 1 September 2005.

52. Putnam 1988.

53. Fischhendler forthcoming.

Table 2
 Ambiguity in Water Allocation

Issue	Sub-issue	Facets of ambiguity in treaty			
		Water source	Time of allocation/ storage construction	Water allocated/ storage size	Cost-sharing
Water division	Allocation to Jordan from upstream Deganya Gate	-	+	+	-
	10 mcm desalinated water to Jordan	+	+	+	(capital cost)
	Jordanian water storage on the lower Jordan	+	-	-	-
	Division of water on the lower Jordan	+	+	-	(capital cost) not relevant
aspnum	Allocation during a drought	-	-	-	-
	50 mcm additional water	-	-	+	-
	Israeli use of Arava water	+	-	-	+

"+" clearly defined

"-" ambiguously defined

4.3 Attempts to Clarify the Ambiguities

Soon after the treaty was ratified and the Joint Water Committee began its operation, Jordan was looking to augment its water resources through implementation of the treaty. Of special concern was the provision of water to Amman, which suffered from acute water shortage. Yet, disagreements arose around the interpretation of many of the issues that had been left ambiguous, among them the location of the storage dam on the lower Jordan and the additional 50 mcmy.⁵⁴ On the former issue, Jordan wished the storage dam to be built in the confluence of the Jordan Basin and the Yarmouk, while Israel insisted that it be located further downstream to allow Israel to maintain its existing water uses.⁵⁵ Regarding the latter issue, Jordan wanted the water to be provided from Lake Kinneret with the cost borne by Israel. Israel, in contrast, stated that desalinated Mediterranean Sea water should be the source for the additional water and that Jordan would have to pay for it.⁵⁶ In the meantime, Jordan lay a pipeline that can deliver these additional 50 mcmy from Lake Kinneret to the Abdullah Canal and from there to Amman.

While Israel was negotiating with Jordan the source of the 50 mcmy, a coalition of the Israeli settlements that might be affected by the negotiations was established. The coalition, which included the Jordan Valley Regional Council and the area's Water Association, started to lobby Israeli politicians.⁵⁷ Their aim was to secure the remaining water on the Lower Jordan for their agricultural activities, which have no alternative water source. They also wrote to the Israeli prime minister and the Water Commissioner, expressing their concern that any agreement with Jordan might affect their water availability without their consent and involvement.⁵⁸

Both states, facing difficulties in treaty implementation domestically and internationally, had designated a task force to prepare a preliminary proposal with the aim of clarifying the ambiguities in the treaty. Israel also set up an internal Steering Committee comprised of water experts. The committee recommended a special session that would deal solely with the 50 mcmy issue and advised moving the negotiations to a higher level because of the deadlock on this issue.⁵⁹ As a year had passed since the treaty's ratification and no progress had yet been made on the additional water, both sides suggested that they each draft a position paper. The resulting papers, however, were no different than the two countries' original proposals.⁶⁰

Thus, no progress was made on developing the additional 50 mcmy or the

54. JWC 1995a.

55. Interview with Moshe Izraeli, Consultant to the Israeli Water Commissioner. Tel Aviv, 3 January 2006.

56. JWC 1995b; and JWC 1995c.

57. Interview with David Yaros, Former manager of Afike Maim Water Association. Jerusalem, 18 January, 2006.

58. Shachar and Shor 1995.

59. Steering Committee 1995.

60. JWC 1996a.

location of the storage dam in the north, nor was there any headway in Jordan's allowing Israel to increase its use of Jordanian groundwater in the south and to drill new wells.⁶¹ The Arava water is crucial for Israel since the region is beyond the reach of the Israeli National Water Carrier.⁶²

As the 50 mcmy issue affected other water issues on the peace negotiations agenda, a representative from the Ministry of Foreign Affairs was seconded to the Israeli team. At the same time, the Israeli Water Commissioner proposed a new option for the source of the 50 mcmy: to increase significantly the efficiency of water used by the Israeli fisheries industry in the Beit Shean Valley, which uses the majority of the remaining water on the lower Jordan. The water saved would be desalinated and delivered to Jordan. Israel has begun to evaluate the economic and hydrological feasibility of this option.⁶³ Yet, since the Israeli water administration had already designated the 50 mcmy of the lower Jordan water to the existing agricultural uses in the Beit Shean Valley,⁶⁴ the water users on the Israeli side objected to the reallocation of this water to Jordan.⁶⁵

Towards the end of 1996, the deadlock around the 50 mcmy in the north paralyzed any progress on water use in the south, in the Arava; the meetings of the Joint Water Committee became intermittent and less productive.⁶⁶ As result, the Israeli task force realized that it was vital to take a clear stand towards the treaty ambiguity and to present the Israeli interpretation to the upper political echelons.⁶⁷ Concurrently, the Prime Minister's Office urged the Water Commission to find a solution to what they now saw as a pending conflict.⁶⁸

4.4 *Changes in the Background Conditions*

Less than a year after the peace treaty was signed, the enthusiasm surrounding it started to fade. For Jordan, the lack of progress on the Palestinian, Syrian and Lebanese negotiation tracks, combined with Israel's intention to confiscate Palestinian lands in East Jerusalem, contributed to growing opposition to normalized relations with Israel.⁶⁹ As a result, already in 1995 significant opposition to the peace treaty was forged in the Jordanian parliament.⁷⁰ The deterioration in political relations gradually permeated the two countries' economic ties as well.⁷¹ Consequently, most of the joint economic ventures forged in the after-

61. JWC 1996b; and Steering Committee 1997.

62. Interview with Eliyahu Rosenthal, Member of the Israeli negotiation team to the Peace Agreement. Jerusalem, 28 October 2002.

63. Steering Committee 1996.

64. Water Commission 1996.

65. Interview with David Yaros, Former manager of Afike Maim Water Association. Jerusalem, 18 January 2006.

66. Haddadin 2001, 416.

67. Water Commission 1997.

68. Balkind and Ben Meir 1996.

69. Haddadin 2001, 415.

70. "A message from Amman to Israel: the disappointment from the Peace Treaty in Jordan grows," *Haaretz*, 20 June 1995 [Hebrew].

71. Tal 2004.

math of the peace agreement did not materialize.⁷² On the other side, on March 13, 1997 a Jordanian soldier killed seven Israeli schoolgirls on an excursion along the border, at Naharayim (Baqura on the Jordanian side). This extreme event was discussed in the Jordanian parliament due to the fear that it might further destabilize the relations between the two countries.⁷³

Jordan's high dependency on the Yarmouk meant that already in the 1970s it started to build reservoirs and irrigation canals, so as to fully utilize the water.⁷⁴ Yet, during the last century there has been a 20 percent decrease in water availability, attributed both to climatic changes and the growing use of the water upstream.⁷⁵ The decrease was especially noticeable in 1994–96: the annual flow in the lower Yarmouk dropped more than 50 percent compared to the average flow.⁷⁶ The flow reduction was even more drastic during the summer of 1996, when the water was badly needed for irrigation.⁷⁷ The drought also exacerbated the ongoing water crisis in Amman, whose residents often receive a supply only twice a week during the summer.⁷⁸ The water stress in 1996–97 and Jordan's difficulty in overcoming distributional obstacles (that is, the demand of farmers for irrigation water) put the Jordanian government under internal pressure to clarify its interpretation of the ambiguities,⁷⁹ especially in light of the lack of progress in identifying the source of the additional 50 mcmy and the location of the dam.⁸⁰ Meanwhile, the Israeli Water Commissioner advanced an over-abstraction water policy in order to provide the maximum amount of water for agriculture; in this way, Israel further entrenched the ambiguities in its own interoperations.⁸¹

4.5 Ambiguity Becomes Destructive

The futile attempts to find a breakthrough concerning the 50 mcmy coupled with the drought pushed Jordan to link water to other issues. Several days before a ceremony marking the 30th day of the murder of the girls at Naharayim/Baqura, Jordan acceded to Israel's request to upgrade its representation there—on condition that the two sides announce an agreement on the implementation of some difficult provisions in the water treaty.⁸² With this in mind, Jordan, on April 4, 1997, initiated a ministerial meeting between the Minister of Water and his Israeli counterpart, Minister of Infrastructures Ariel Sharon, in order to re-

72. Shamir 2004.

73. "Jordanian newspapers: The crime in Naharayim does not justify building Har-Homa settlement", *Haaretz*, 3 March 1997 [Hebrew].

74. Salman 2005.

75. Harza 1997.

76. Exact 2005.

77. Israeli Jordan Valley Water Association 2005.

78. Biswas and Bino 2001.

79. Balkind 2002.

80. Interview with Moshe Izraeli, Consultant to the Israeli Water Commissioner. Tel Aviv, 3 January 2006.

81. Feitelson et al. 2005.

82. Haddadin 2001, 417 and 420.

solve the outstanding water issues. Keen to prevent the controversy from escalating into a conflict, both sides agreed to finalize the 50 mcmy issue the following day.

Several hours after this ministerial meeting, an emergency meeting took place between the Ministers of Water and Foreign Affairs and the Deputy Prime Minister, on the Jordanian side, and, representing Israel, the Foreign Policy Advisor to the Prime Minister. The aim of the meeting was to ensure the immediate resolution of the water conflict, which would enable the upgrading of the level of Jordanian representation at the impending memorial ceremony. However, the meeting that took place the next day failed, ending acrimoniously.⁸³ To try to restrain a possible exacerbation of the situation, Ambassador Dennis Ross, the US mediator to the Middle East, was quickly called in.

The breakdown of the meeting did indeed quickly spill over to the general relations between the two countries. Crown Prince Hassan cancelled his participation at the girls' memorial service and at a meeting with the Israeli Prime Minister immediately after the service.⁸⁴ The only solution suggested by Jordan to the growing tension was that Israel find a way to resolve the dispute over the 50 mcmy.⁸⁵ Israel, in response, postponed the ceremony so that it could be conducted properly after the "mini-crisis" (as the Israeli Prime Minister put it) was resolved.⁸⁶

Finally, a day later, Prime Minister Benjamin Netanyahu, through the mediation of the US Ambassador, met with Jordan's King Hussein at a summit in Aqaba, where they discussed the additional water.⁸⁷ Netanyahu agreed that Israel would deliver to Jordan 25 mcmy for a period of three years, effective immediately, until a desalinization plant would be established.⁸⁸ In the meantime, the water was to be delivered from Lake Kinneret through further reducing the lake's levels.⁸⁹ The desalinization cost was to be divided equally between the two sides, though the US agreed to seek funds to support the Jordanian contribution.⁹⁰ Since the source for desalinization was to be brackish water used by the Beit Shean Valley farmers, it was agreed that the Israeli government would be compensated. A week later, King Hussein opened the floodgates that released the new water to Jordan.⁹¹

The water understanding was brought before the Israeli cabinet for approval and three weeks later was reinforced at another international ministerial

83. Haddadin 2001, 417–424.

84. Israel Line 1997a.

85. Israel Line 1997b.

86. Israel Line 1997a.

87. Israel Line 1997c.

88. Makovsky 1997.

89. Interview with Meir Ben-Meir, Israeli Water Commissioner for 1996–2000. Tel Aviv, 31 October 2002.

90. "Israel will desalinate 50 million cubic meter of water a year for Jordan from the Kinneret and the Gilboa springs," *Haaretz*, 25 May 1997 [Hebrew].

91. "King Hussein opened the floodgates yesterday to pump millions of cubic meters of water from Israel," *The Jerusalem Post*, 28 May 1997.

summit, in Aqaba, and in correspondence (known as the Aqaba Letters) between the Crown Prince and Ariel Sharon.⁹² Yet, the Israeli Ministry of Finance and the Ministry of Defense, which had been left out of the picture, criticized the high cost to Israel.⁹³

Figures 2 through 5 depict the story-line of how ambiguity became destructive, for each of the four indicators mentioned in Table 1. The figures indicate that ambiguity does not become destructive overnight. It took more than a dozen meetings and several years without progress in clarifying ambiguity before the costs became apparent. All figures also stress the importance of gradualism in when and how ambiguity becomes destructive: the level of involvement, the forums in which the issue was discussed and the nature of the controversy were gradually raised until ambiguity could not be resolved amicably. These findings suggest that there are early signals cautioning when ambiguity may become destructive. Yet, the drastic and rapid increase in the cost, as seen in all figures, also demonstrates that the moment ambiguity passes a certain threshold, the conflict tends to escalate very rapidly. When the level of diplomatic threats crossed the threshold, the result was a spiraling of hostile diplomatic acts; when the level of ministerial involvement crossed the threshold, the result was a peace summit between prime ministers.

4.6 *The Ambiguity Today*

After the interim agreement was achieved, a disagreement arose regarding who should be responsible for the construction of the desalinization plant and the cost sharing related to its management, as these issues were again left open to interpretation in the Aqaba Letters. Jordan wanted its contribution to the plant to be proportional to its GDP, while Israel argued that the cost should be equally divided.⁹⁴ When the three years of the temporary-interim agreement had passed and a new desalinization plant was still not built, the Israeli Ministry of Infrastructures notified Jordan of its intention not to deliver the additional 25 mcm of water that it owed, as stipulated in the Aqaba Letters. However, Israel soon withdrew this threat due to pressure from its Foreign Affairs Minister, who was concerned for both countries' international relations.⁹⁵ As a result, although the agreement was not renewed, Israel to date continues to provide these waters.

It is Israel now that seeks alternative permanent solutions to replace the 25 mcm provided to Jordan from Lake Kinneret. Israel is concerned with the water

92. "Israel will desalinate 50 million cubic meter of water a year for Jordan from the Kinneret and the Gilboa springs," *Haaretz*, 25 May [Hebrew].

93. "Distorted agreement with Jordan," *Haaretz*, 13 June 1997 [Hebrew].

94. Interview with Meir Ben-Meir, Israeli Water Commissioner for 1996–2000. Tel Aviv, 31 October 2002.

95. Interview with David Yaros, Former manager of Afike Maim Water Association. Jerusalem, 18 January 2006.

Figure 2: Nature of controversy around ambiguity

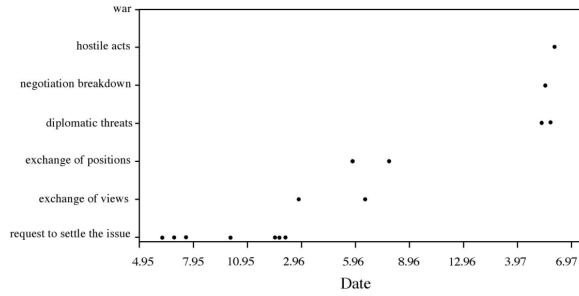


Figure 3: Level of involvement in ambiguity

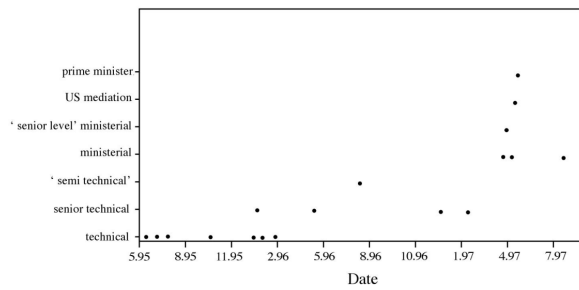


Figure 4: ambiguity - linked issues

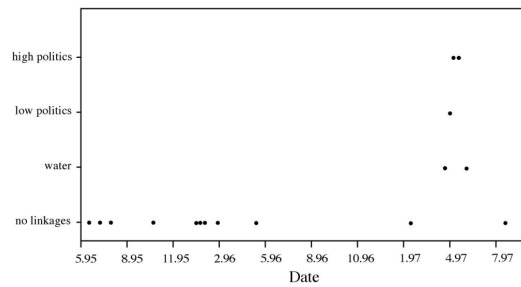
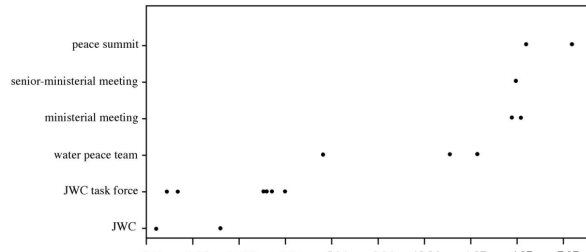


Figure 5: Forums addressing ambiguity



Figures 2-5
Story-line Indicators of Cost of Ambiguity

1 LINE SHORT
REGULAR
1 LINE LONG

scarcity issue that will inevitably resurface and adversely affect its fragile relations with Jordan. Furthermore, Israel is worried that the temporary solution described above may set a precedent for further negotiations between Israel and the Palestinians over water, and thus Israel may wish to terminate it.⁹⁶ Israel first suggested building a desalination plant on its shores that would provide both Jordan and the Palestinians with ample water at full cost recovery.⁹⁷ As Jordan rejected this solution, the option currently under discussion is that Jordan and Israel each provide around 30 mcmy of brackish water, to be desalinated at a plant in Jordan. Israel will assist Jordan to raise the money required from the donor community. Israel further suggested strengthening their bilateral water relations through a regional water fisheries system. Yet, this move was not encouraged by Jordan.⁹⁸ No solution to the pending controversy over the ambiguities has been found to date.

5. A Rudimentary Model for Destructive Ambiguity

In order to understand the processes by which ambiguity becomes destructive, a rudimentary conceptual model is proposed here (Figure 6).

The immediate result of ambiguity (Box 1 of Figure 6) is that there are requests to clarify it in order to implement an agreement; soon after treaty ratification, both Jordan and Israel requested to settle the ambiguities around the 50 mcmy and the Arava water, respectively (Box 2). As a result, policy entrepreneurs and interest groups offer different interpretations of ambiguity (Boxes 3 and 4).

However, clarifying ambiguity is not achieved in a vacuum. Rather, policy formulation and implementation are always set against a backdrop of existing assumptions (Box 4) and external forces (Box 5). Any Israeli interpretation of ambiguity had to consider the Jordanian premise that it would receive the additional water entirely from Lake Kinneret, and at no cost. In contrast, Jordan had to acknowledge the Israeli assumption that the additional water would be provided from other sources and that the donor community would bear, or at least share, the cost. Based upon these assumptions, each side undertook conflicting measures: Jordan has laid a pipeline that can deliver the 50 mcmy from Lake Kinneret, while Israel has designated the water that remains on the lower Jordan for agricultural uses in the Beit Shean Valley.

Any interpretation of ambiguity has to face further changes in hydrological and political conditions. During the dry years on the Jordan basin that followed the treaty ratification, the additional water has become more valuable to

96. Interview with Noga Blitz, Head of Water Supply Department, The Water Commission. Tel Aviv, 6 September 2005.

97. Interview with Jacob Keidar, Israel Multilateral Peace Talks Coordinator. Jerusalem, 25 June 2005.

98. Interview with Meir Ben-Meir, Israeli Water Commissioner for 1996–2000. Tel Aviv, 31 October 2002.

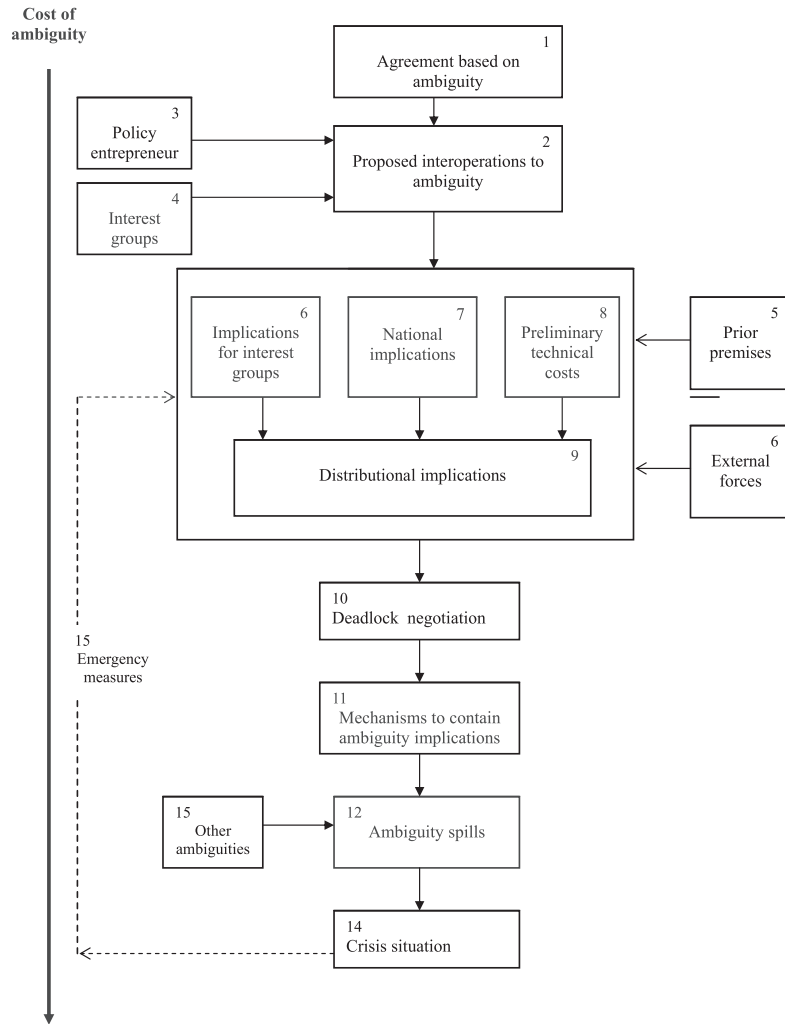


Figure 6
A Model for Destructive Ambiguity

both countries. Deterioration in their political relations has further contributed to the volatility of ambiguity in becoming a conflict, as the opposition to the treaty in Jordan increased pressures on Jordan to deliver the fruits of peace.

Hence, any proposed solution was likely to have some distributional implications (Box 9). These include implications for interest groups (Box 6), national implications (Box 7) and technical costs (Box 8). An example of these distributional implications was the Israeli farmers in the Beit Shean Valley, who

1 LINE SHORT
REGULAR
1 LINE LONG

were to incur the cost of intensification of their fishing ponds.⁹⁹ On the Jordanian side, it was the opposition to desalinization that considered this option too politically and economically costly. The distributional implications restricted the win-set of options available to both sides and, as a result, the negotiations often reached a deadlock (Box 10).

To reduce the perceived cost of a deadlock and to contain the conflict, the various measures built into the agreement to clarify the ambiguity were employed. That is, the JWC, the special task force and the mechanism of exchange of position letters were used to accommodate the adverse affects of ambiguity (Box 11). Yet, as these mechanisms could not necessarily absorb the new political and hydrological conditions, ambiguity started to spill over to other issues (Box 12). The first to be affected were those that were left ambiguous in the agreement (Box 13). Furthermore, utilization of the Arava groundwater was put on hold until progress was made on the 50 mcm³ front. The spillover effect also raised both the hierarchy of forums and level of governance issues that addressed the conflict around interpretations of ambiguity.

As the disagreement passed a threshold, the conflict looked set to escalate, and quickly. It was the threshold of diplomatic threats that was soon to manifest as diplomatic hostile acts and the threshold of linkages to low politics that soon was upgraded to high-political linkages. In such a situation, a crisis situation is often declared (Box 14). In this case, two peace summits were quickly arranged which, by interpreting ambiguity, provided temporary relief from the conflict over ambiguity.

In order to boost the political feasibility of an interpretation given to ambiguity, policy makers use a variety of mitigation measures (Box 15) aimed at satisfying pressure groups' demands (Box 15). The mitigation measures essentially rework the distribution of benefits and of the cost burden. In this case, it was granting the Beit Shean farmers water rights and financial compensation for the intensification of their fisheries activity.

6. Conclusion

Ambiguity is often adopted on the premise that it is required to bring conflict to temporary closure, with the hope that outstanding issues can be clarified in the future at a low cost. Yet, this study has indicated that, in the Israeli-Jordanian case, when the political and hydrological conditions are unstable the parties see the process of clarifying the ambiguities in their water agreement as much more complex than simply a matter on the bilateral relations agenda or a resource allocation issue. As a result, the cost of clarifying ambiguity at the implementation phase dramatically increases. The mechanisms built in the agreement to address instability could not contain the disagreement around ambiguity. The

99. Interview with Meir Ben-Meir, Israeli Water Commissioner for 1996–2000. Tel Aviv, 31 October 2002.

conflict then spilled over to other issues, which were also left open to interpretation. It was only US intervention and peace summits that provided a partial remedy to separate the water ambiguities from the broader regional relations that have re-intensified the controversy over ambiguity interpretation. Even today, as long as political relations between the two countries are uncertain, the win-sets of options available to permanently clarify the ambiguity are restricted and both sides seem to muddle through one ambiguous agreement to the next.

Given that ambiguities in formal agreements on a natural resource can become destructive when conditions change, one might advocate the use of soft laws to regulate the resource's use; such laws might be able to detach the ambiguities pertaining to the resource from the general regional conflict. Soft laws are located in the twilight zone between law and politics¹⁰⁰; unlike traditional hard laws, they do not create formally binding obligations. Instead, they record only previously agreed-upon principles and objectives, and "a considerable degree of discretion in interpretation is left to the participants."¹⁰¹ Examples of soft laws in the environmental arena include many of the FAO codes of conduct.¹⁰² Indeed, informal consultations previously characterized the Jordanian and Israeli water relations. Yet, it is important to bear in mind that soft laws, including those stemming from previous meetings between the Israelis and Jordanians, lack an enforcement framework.

The anatomy of resolving ambiguous agreements in this case teaches us that ambiguity does not become destructive overnight. It takes many futile meetings and often years until it becomes costly. This pattern of gradualism is also distinct in the evolution of forums and levels of governance that address the conflict around ambiguity. The pattern suggests that we should pay attention to the early signals that ambiguity may become destructive. Tracing these signals is crucial, since the cost of ambiguity is not linear. Rather, as noted, when a disagreement around ambiguity passes a threshold it can escalate into a serious conflict in a very short time.

In conclusion, ambiguity is a double-edged sword. Its use can be constructive in that it can help to bring a dispute to temporary closure. At the same time, it can leave unresolved critical issues, leading to a destruction of relations between parties during the implementation and management phases of agreements. This suggests that negotiators should not blindly heed the experts calling for the adoption of "constructive ambiguity" if the result could lead to a high cost of implementation. Rather, under conditions of high uncertainty, negotiations should also focus on developing and agreeing upon mechanisms to accommodate ambiguity in the face of unforeseen events. While this may stall the finalization of agreements, it may be preferable to the current options in many places—an inability to clarify the ambiguities and foresee their potential resulting conflicts.

100. Thürer 2000, 452–454.

101. Craik 1998.

102. Skjaereth et al. 2006.

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I LINE SHORT

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