

WHY STATES CO-OPERATE OVER SHARED WATER: THE WATER NEGOTIATIONS IN THE JORDAN RIVER BASIN

Anders Jägerskog¹
Deputy Secretary, PhD
Expert Group on Development Issues (EGDI)
Department for Global Development
Ministry for Foreign Affairs
SE- 103 39 STOCKHOLM
Sweden
email: anders.jagerskog@webaid.se

ABSTRACT

The focus of this paper is on foreign-policy decision-making in circumstances of water scarcity. It focuses on how the issue of water has been treated in the negotiations within the Peace Process between Israel and the Palestinians and Israel and Jordan respectively. It also analyses the implementation phase. The aim is to explain why and under what conditions co-operation between Israel, Jordan and the Palestinian Authority has occurred and how it has functioned in the water sector. Based on an overall actor-structure framework of analysis the factors identified as being important in affecting the process and outcome are identified. The development of a shared system of norms, rules and procedures (herein labelled a water regime) for how to manage the water resource are seen as a vital explanatory variable for the water co-operation in the Jordan River Basin. It is concluded that the water negotiations, both between Israel and the Palestinians and between Israel and Jordan have been intimately linked to the other issues on the negotiation table. Furthermore, it is concluded that water has been sub-ordinate to other politically more salient questions in the negotiations.

KEYWORDS: conflict, cooperation, Israel, Jordan, Palestine, water regime

¹ The views expressed in the paper are those of the author and not of the EGDI nor of the Swedish Ministry for Foreign Affairs.

INTRODUCTION

Water is the source of life. In many religions it is portrayed as something sacred—a gift from God. Water is required for almost all a society's activities, such as the very visible ones of washing and cooking, but also in less visible areas such as food production. While in certain areas access to clean water is plentiful, in many parts of the world this is not the case. It is therefore no surprise that increasing attention is being given to the importance of the world's water resources and aquatic systems.

Today, more than 45 per cent of the world's population lives in internationally shared river basins. The increasing pressure on the limited freshwater resources in places such as the Middle East and Southern Africa makes greater and deeper knowledge of how to manage transboundary waters essential. While it was previously assumed that shared waters could and would be a source of conflict and even war, it has been demonstrated more recently, through a compilation of a database at Oregon State University, comprising all the water agreements on international watercourses (<http://www.transboundarywaters.orst.edu/>), that states tend to find ways to reach agreement rather than to engage in violent conflict over shared water resources.

The aim of this paper is to analyse why and under what conditions cooperation between Israel and the Palestinians and between Israel and Jordan has taken place and how it has functioned in the water sector. It identifies the differences of opinions, obstacles to be overcome and how these have been addressed. Furthermore it draws some policy implications. While many analyses and textbooks on water in the Middle East have focused their attention on analysing the agreements on water *per se* in detail, this paper will focus on what has happened to the agreements after their signing. In order to put the analysis into a theoretical context, regime theory is used. The regime theory is applied within the overall framework of an actor–structure approach. This overall framework is not used as a specific analytic instrument but rather as a description of a general approach to the way in which particular changes from conflictual behaviour towards more cooperative behaviour have occurred.

ISRAELI-PALESTINIAN WATER RELATIONS

As stipulated in the Interim Agreement between Israel and the Palestinians, a Joint Water Committee was established after the signing of the agreement. This committee is supposed to implement the undertakings of the parties in Article 40 of the Interim Agreement, which deals with water and waste-water. It is to be composed of an equal number of participants from each side and to reach decisions through consensus, which means that each side has a veto. This is a much stronger tool for the Israelis as the projects that are discussed in the JWC are to do with the occupied Palestinian areas. Each side can call in experts to the committee as it sees fit. It should be noted that, while the actual decisions implementing the Interim Agreement are to be taken in the JWC, the committee is still under the political leadership of the State of Israel and the Palestinian National Authority. This means that when a sensitive water issue of political importance surfaces in the JWC it is passed up to a higher political level. This underlines the fact that water is very much connected to the politics in the region.

While regime theory is not an approach that encompasses all the issues at stake it does increase our understanding of the institutional aspects of the cooperative behaviour that the parties have engaged in within the JWC. A regime analysis deals with well-defined issues around which parties create and subscribe to means of self-regulation in the international arena. The JWC could be described as such a regime. Besides the bilateral JWC there is also activity on water issues within the multilateral track that was established at the Madrid peace conference in 1991. In a subgroup under the Multilateral Working Group on Water Resources a group, named Executive Action Team (EXACT), which involves Israelis, Palestinians and Jordanians have met under US auspices without interruption since 1992. This group has, by and large, focused on technical matters of importance for all parties and has refrained from discussing political issues. The members of the EXACT team have however been almost always the same people that have participated in the JWC. This has contributed to the building of trust between the parties (for more see: <http://exact-me.org/>).

As already mentioned, the JWC is to take decisions with regard to water projects in the West Bank by consensus. Palestinian

participants in the JWC have stated that there was an expectation that the Palestinians would be able to get approval for projects in the JWC without much problem so that implementation of the Interim Agreement could proceed. However, according to the Palestinians taking part in the JWC and its subcommittees, there have been delays in decisions with regard to decisions on permits to drill wells and so on (Jarrar, 2002; and Barghouti, 2002). At the same time it has also to be acknowledged that some of the implementation problems—for example, the building of a pipeline in Gaza to receive 5 mcm water from Israel per year—are a result of the fact that the Palestinians have not been able to build the transmission line in Gaza (Jarrar, 2002). While the Palestinians attribute many problems and delays in decisions regarding Palestinian projects to Israeli unwillingness, the Israelis maintain that they have hydrological reasons for turning down Palestinian proposals (Cantour, 2001). However, well-informed sources admit that Israel's refusals to agree on project proposals with the Palestinians are sometimes due to political rather than technical reasons.

A further reason, which is delaying the implementation of the Interim Agreement, is the fact that the protocols/minutes from the JWC meetings need to be signed by all four members of the JWC (two Israelis and two Palestinians). This is a lengthy process that can take months to finalize. While this can be seen as normal committee procedure it is also possible for either side to withhold a signature as a political tool. According to Ihab Barghouti at the PWA, the Palestinians have raised the problems of getting approvals for projects with their Israeli counterparts in the JWC, who are mainly technical people, and maintain that many of the problems were due to not them but rather to the political leadership. (Barghouti, 2002). Another problem for the JWC is that the Interim Agreement has an inbuilt ambiguity (Shamir, 2001). While it can be helpful when working towards an agreement to keep it ambiguous as regards particular points, the ambiguities become obstacles in the implementation stage, particularly if they involve politically sensitive issues.

Another impediment to implementation is the problem of Palestinian project funding. This problem is only minor since there are willing donors active in the Palestinians water sector. The ongoing al-Quds Intifada, which started in autumn 2000, has also had a negative

impact on the implementation of the agreement since there are various problems associated with the movement of PWA personnel as a result of closures, Israeli refusals to grant permits and so on (Jarrar, 2002). The Palestinians also highlight the fact that there is a difference depending on whether Likud or Labour is in power in Israel. According to Anan Jeusi, more project proposals are accepted in the JWC if Labour is in power in Israel than if Likud is (Jeusi, 2002). Thus, internal Israeli politics are intimately linked to what it is possible to do in the JWC.

Although various problems have hampered the implementation of the agreement, both parties acknowledge the importance of it being in place. Indeed, even in the midst of the tensions during the current Intifada, the work of the JWC continues. A joint statement of 31 January 2001 from the Israeli and the Palestinian heads of the JWC reaffirmed their commitment to continue their cooperation. In the declaration the parties, represented by the head of the PWA, Nabil el-Sharif, and the head of the Israeli delegation to the JWC, Noach Kinarty, promised to take all necessary steps to keep water out of the conflict and also appealed to their respective constituencies to refrain from damaging water infrastructure (Schiff, 2001).

In the regime literature it is argued that regimes function as learning processes and can hereby also be a place for the policies of parties in a regime to converge, thus creating fertile ground for increased cooperation (Mayer *et al*, 1993). Behaviour along these inherently constructivist lines of thinking are not immediately apparent in the Israeli–Palestinian water relations. However, both parties acknowledge that the joint mechanism for dealing with their transboundary waters is necessary (Barghouti, 2002 and Ben-Meir, 2001). This is a result of an appreciation on both sides of the fact that they are linked by their hydrological interdependence. It is acknowledged that a level of trust has been built in the JWC, in particular on a professional level. The impediments to implementation seem to be related more to politics than to problems on a professional (meaning technical) level.

According to regime theory there are various ways in which regimes come into existence. The realist argument—that regimes are created by powerful hegemons because it serves their interests—seems to

have some bearing in this case as it can be argued that the USA has seen a stabilization of the region and cooperation over water as fitting its interest. In addition, Israel, which can be portrayed as a regional hegemon, also views agreement with its Arab neighbours as something that would serve its interests, both from a strategic and from an economic perspective. At the same time, the neo-liberal argument for regime creation, which pinpoints the *demand* for regimes as the most important factor, also has a bearing in this case. This stems from the idea that by creating a regime the parties to the regime can more accurately estimate the costs and benefits of action. In other words the parties to the regime are in a better position to avoid sub-optimal outcomes (Hasenclever *et al*, 1997). In the case of Israel and the Palestinians the common appreciation of their hydrological interdependence has spurred a demand for joint management of the shared waters.

It is concluded that the water relations between Israel and the Palestinians resemble a water regime. There exist principles, norms, rules and decision-making procedures (more or less well established), which are deemed necessary for a regime (Krasner, 1983). These features are influenced by the power asymmetry, identified by Keohane and Nye as a source of power for affecting outcomes, by which Israel is able to exercise a strong influence on the direction implementation takes (Keohane and Nye, 1989). In terms of *effectiveness* it is concluded that the members have generally abided by the rules of the regime. However, an impediment to the effectiveness of the regime is that, while the Interim Agreement was supposedly negotiated in 'good will' the political relations that inevitably affect the JWC have substantially slowed its implementation (see Interim Agreement, Article 40, <<http://www.mfa.gov.il/mfa/go.asp?MFAH00qd0#app-40>> or <<http://www.nad-plo.org/fact/annex3.pdf>>). In terms of *robustness and resilience* the Israeli–Palestinian regime is a strong one. In spite of all the political problems during the current Intifada, the JWC and its subcommittees have continued to meet and coordinate water-related activities. Fadl Kawash, the director general of the Palestinian Water Authority, stated in late October 2002 in an interview in the *Jerusalem Post* that Palestinians were working together with their Israeli counterparts to prevent pollution of water through the JWC in spite of the Intifada (Muscal and Lahoud, 2002).

Two underlying questions in this paper are how and why change occurs in the water relations in the Jordan River Basin. It is argued that we need to look at both actors involved in the management of the water resources as well as the structures in which they are working. When assessing the water negotiations and the work of implementing the agreement in the JWC it is clear that, if the professionals involved in the JWC were not subject to guidance by politicians (which is of course impossible), working relations would be much better and it would be possible to look at the various project proposals and so on from a purely technical perspective. Yet, as Hay points out, agents/actors are never to be analysed apart from their context. He calls this the contextualization of agency, which means that the social and political action of agents should be analysed within the structural context in which it takes place (Hay, 1995).

Thus, while the level of technical understanding between the people participating in the work of the JWC is high, the Israelis as well as the Palestinians are situated in a structural context (meaning, for example, the ongoing political conflict), which affects what they can and cannot do. Indeed, the structures work as a sort of 'boundary' for action. Still, the actors also affect the structures. For example, although almost all of the cooperation between Israel and the Palestinians has been suspended as a result of the Intifada, the shared understanding among the participants in the JWC—that it is imperative to continue to have a functioning joint mechanism for water issues between the parties—has resulted in cooperation. The meetings of the JWC and its subcommittees have continued in spite of the political tension.

In terms of structures it is important to note that the structure–agency issue is a matter of power as well. Hay has pointed out that structures can be enabling as well as constraining. He maintains that structures provide resources and opportunities to the powerful while at the same time they constrain the weaker party (Hay, 1995). This issue, which can be seen as an issue of asymmetry in power, is emphasized by the Palestinians as a constraining factor since it is, according to their view, possible for Israel to pressure them in the sphere of water because they are more powerful in terms of economic size, military strength and so on (Jarrar and Awayes, 2002). Still, Israel as well can

be seen as being constrained by the international structures (meaning, for example, influence and pressure from the international community), which demand a resolution of the conflict, including a settlement of the water dispute.

ISRAELI-JORDANIAN WATER RELATIONS

Like the Interim Agreement between Israel and the Palestinians, the Peace Agreement between Israel and Jordan stipulates that a Joint Water Committee should be established. The JWC is to be composed of three members from each side and be able to call in experts whenever it is deemed necessary (see Treaty of Peace between the State of Israel and the Hashemite Kingdom of Jordan, Article 6 <<http://www.mfa.gov.il/mfa/go.asp?MFAH00pa0>>). The JWC is responsible for the implementation of the water clauses of the Peace Treaty. Thus, in order to be able to assess the pace and quality of the implementation of the treaty, it is relevant to study the work of the JWC.

Before embarking on an analysis of the actual work of the JWC it is important to view the history of Israeli–Jordanian water cooperation and coordination. Water has been portrayed by some as a reason for conflict and even war in the Jordan River Basin. However, authors who focus on the potential for war, apart from ignoring the ameliorating factor of virtual water, have also tended to neglect that something that might be called a water regime has been in place regulating the water relations between Israel and Jordan since the early 1950s. The common understanding, reached in UN-led talks that started in the 1950s, on the use of the disputed waters of the Jordan River Basin between Israel and Jordan during a period when they were *de jure* in a state of war, is a good example of a water regime that greatly reduced the tension between two adversaries. Dinar argues that the USA viewed cooperation on water issues in the Jordan Basin as a tool for the creation of peace in the region (Dinar, 2000). Consequently, the realist argument that the interests of hegemons create regimes seems to have some bearing in this case. However, there was also a *demand* for the regime from the countries, which fits the neo-liberal argument, regarding the nature of coordination of the shared water resources (Haddadin, 2002).

Regardless of how the regime came about, it has provided a means to build trust between the states and has facilitated the development of friendly relations. Furthermore, the 1955 Johnston plan for the water management in the Jordan River Basin, which was facilitated by a US team of experts, can be seen as a part of a water regime (or the beginning of a regime), despite the fact that it was not formally recognized by the states (Wolf, 1993). The plan has been used as a sort of baseline for water relations in the basin. It shall be noted that, while some of the recommendations in the Johnston Plan were adhered to, many were not, which is quite in contrast with what many of the textbooks on water in the Middle East say. The water agreement between Israel and Jordan, which is a part of the Peace Agreement signed 1994, can be seen as having enhanced and formalized the regime cooperation between the two states. The treaty, however, stipulates the rights and obligations of the two parties, while the regime concerns mainly the actual behaviour of the parties to the regime.

Consequently the work of the JWC and the implementation of the water clauses of the Peace Treaty should not be viewed as separate from the history of water cooperation and coordination. Even before the actual treaty, principles and norms for the water relations between the parties existed. *Principles* involve goal orientation and beliefs at a general level in areas such as the environment and security. *Norms* describe general rights and obligations, which operate mainly on the level of issue areas but are still at a very general level. Hence the basics of the regime were in place before the peace negotiations started. In a fully-fledged regime there are also *rules* which are specific prescriptions and proscriptions for action that are often stated in a formal agreement such as the water clauses in the Israeli–Jordanian treaty. In addition, there are *decision-making procedures* in a regime, which are prevailing practices for making and implementing collective choices. These can be seen to be manifest in the form of the JWC and its procedures for taking decisions (Levy *et al*, 1995).

The ways in which the water-related parts of the Jordanian–Israeli Peace Treaty and the Palestinian–Israeli agreement are being implemented are similar in some senses but at the same time very different since in the former case there exists a final peace treaty

while in the latter there is only the Interim Agreement. Allan argues that the implementation of the water parts of the Israeli–Jordanian Peace Treaty is not unproblematic but is happening at a reasonable pace (Allan, 2001).

Among the issues with which the JWC has had to deal are a number that have caused disagreements and thus delays. According to Haddadin (2002), there has been a slippage of dates' on the part of Israel in the implementation of its commitments to Jordan. For example, according to the agreement Jordan shall be entitled to equal amounts of water in relation to Israel from the lower Jordan River. However, in order to decide the exact amount a survey of the existing Israeli use had to be conducted and agreement has not been reached about how to conduct it. Thus, the Jordanian argument is that Israel is deliberately delaying action that is needed as background for the implementation of the water clauses of the treaty. Furthermore joint studies on water resources that were to benefit data exchange financed by the European Union (EU) were, as seen from a Jordanian perspective, delayed in part by Israel through its bureaucratic procedures. Dureid Mahasneh, who was the Jordanian head of the JWC from 1996 to 1999, argues even that the Israelis were obstructing the implementation of the treaty (Mahasneh, 2002). One of the heads of the JWC from Israel, Meir Ben-Meir, also maintained that there were problems in the implementation of the agreement and the work of the JWC, although even so both parties recognized that it was imperative that the committee stay in place (Ben-Meir, 2001).

Furthermore, Haddadin (2001) also attributes implementation problems to ineffectiveness on the Jordanian side, thus recognizing that Israel was not the only problem. While the donors, in particular the EU, acted fast in securing financial support for joint projects, there were sometimes disagreements over which firms should carry out studies and also delays in processing agreed terms of reference for consultancies owing to the bureaucratic procedures of the parties. In addition, work to identify the additional water of 50 mcm per year for the benefit of Jordan has not seen much progress. This is because there is disagreement as to who should bear the cost of the additional water. According to Israel it is Jordan that should bear the cost since the water is for its benefit. Not surprisingly, Jordan does not agree (Shamir, 2001). While Jordan has proposed that the additional

50 mcm should be taken from Lake Tiberias, Israel has proposed a scheme for reclamation of the Jordan River coupled with desalinated water from the saline springs of the Lake Tiberias and Bissan area. Until this has been implemented Israel has agreed, on a temporary basis, to supply Jordan with 25–30 mcm per year of Tiberias water (el-Nazer, 1997).

It should also be noted that, from a Jordanian perspective, the changes in the political scene in Israel, which brought Likud to power in 1996, also affected its water relations with Israel (Mahadin, 2002). According to Haddadin the meetings became intermittent and less productive, although some studies were implemented. On technical matters, however, the working relations between Israel and Jordan still functioned reasonably well (Alem, 2002). Having noted the problematic aspects of the implementation process, it is also important to discuss the positive aspects. For example, the canal for storage of Yarmuk water from Jordan in Lake Tiberias was built quickly and was inaugurated by King Hussein at the beginning of July 1995. However there are no provisions for what to do when there is a drought. This is a serious issue for the parties. Apart from the problems of 1999 when Israel did not want to supply Jordan with what was stipulated (although it eventually did), there has been no problem in the transfer of water from Israel to Jordan (Alem, 2002, el-Nazer, 2002, Mahadin 2002). There has been a fear on the Jordanian side that the quality of the water that Israel releases to it in the summer is of much worse quality than what it receives from Jordan in the winter (from the Yarmuk) (Trottier, 1999). However, according to Jordanians involved in the JWC, who are responsible for the water that comes from Israel, the water released has been of high quality (Alem, 2002 and el-Nazer, 2002). The joint project to bring water from the Red Sea to the Dead Sea, announced on 1 September 2002 at the World Summit for Sustainable Development in Johannesburg, can also be counted as evidence of positive tendencies. The aim of the project is to reverse the decline in the water table of the Dead Sea (Mutaz, 2002).

The *effectiveness* of the regime between Israel and Jordan has been limited since conflicts between them (not over water) have forced them not to abide by the rules of the water regime at all times. That said it is apparent in the agreement from 1994 that many of the

principles existing on the international level, such as the provision not to cause ‘significant harm’, have been used. Furthermore, a joint institution (the JWC) has been established in order to implement and monitor the principles agreed upon. It is positive to see that emphasis has been put on cooperation in the maintenance of the common resource. It is concluded that the regime it is a rather strong one in terms of its *robustness* and *resilience*. The last time it was severely challenged was during the drought in 1998–2000, which produced a disagreement over allocations between the parties. This was partly because no provisions had been made for drought in the agreement from 1994. The conflict was, however, resolved and the norms, rules and principles that existed in the water regime contributed to this end.

The working relations within the JWC, on a professional level, can be seen as functioning rather well (e. g. Mahadin, 2002 and Ben-Meir 2001). This stems from a joint professional understanding of the importance of having a function in place that enables cooperation on the shared waters. At the same time the institutionalization of the JWC as an arena for discussion, coordination and cooperation can be seen as a structure that enables the professional understanding to grow. However, there are also ‘external’ structures that can effectively constrain or enable the work in the JWC and, consequently, the implementation of the agreement as well. As mentioned above, the change in government in Israel from Labour to Likud affected the work of the JWC and was perceived by the Jordanian side as having delayed implementation. While the actors within the JWC (from both parties) had a wider range of avenues for action under a Labour government in Israel, the room for manoeuvre decreased during the Likud period. Thus, the surrounding political environment effectively sets the boundaries for what has been feasible in the water sector.

POLICY RELEVANCE

In particular, two areas of importance from a policy perspective are identified through the research.

First, the research shows that water (and water cooperation) is intimately linked to politics. For those who come from a political science background this is perhaps to state the obvious, but from a water practitioner’s perspective it is seldom well understood. While

donor agencies and international organizations sometimes see water as separated from other fields, this research suggests that such an approach will lead to misunderstandings and disappointments, for example, with regard to why support activities do not accomplish the expected results in the estimated time. Furthermore, and as has been pointed out by Waterbury in the context of the Nile Basin, the development of water policy with regard to the shared waters of the respective states is a very complex process and is determined by considerations stemming from both the domestic and the international political arena (Waterbury, 2002).

Second, observations have been made with regard to the evolution of cooperation on transboundary waters. My conclusion is that by long-term support to processes of establishing cooperation on a shared water resource donor agencies and international organizations can play an important role. In the Israeli–Jordanian case it is evident that the role of the UN Truce Supervision Organization (UNTSO), which worked as an ‘umbrella’ for discussions on water coordination in spite of the absence of a peace agreement, was important. The activities, involving many meetings between Israelis and Jordanians, started as early as the 1950s and continued up until the Peace Treaty in 1994. As in this case, the process of developing a water regime is often a long one and it meets setbacks on occasions. It must be remembered that the institutionalization of cooperation requires time (and not just a signed agreement). The financial support international donor institutions could provide to bring about water cooperation is seldom rewarding in the beginning and can be seen as a high-risk investment. However, if cooperation is achieved and institutionalized the rewards are great since cooperation and coordination over a shared body of water are prerequisites for many other water development projects as well as rural development projects. The involvement of donor institutions should not be too far from the national interests of their clients (the riparians) but should stimulate collective action, albeit stopping short of trying to impose it. Thus for a donor or organization to engage in building cooperative structures in a shared river basin demands courage and a vision that will have to go beyond the lifetime of a single project.

CONCLUSIONS

The focus of analysis in this paper has been on the actual implementation of the agreements (both final and interim) between the parties in the Jordan River Basin. The case of Israel and the Palestinians is different from the Israeli–Jordanian case in that the agreement to be implemented is an interim one, while Israel and Jordan are working with the implementation of a final agreement. Within an overall actor–structure theoretical framework, regime theory has been used to analyse the implementation process, which has mainly taken place within the respective Joint Water Committees. It is concluded that it is imperative to analyse the actions of actors in the committees within their proper structural context, which means that an account of linkages between water and other political issues have been incorporated into the analysis.

With regard to the implementation of the various parts of the agreements it is concluded that they are often being implemented somewhat painfully. That said, it is also evident that in the Israeli–Palestinian case many parts of the interim agreement awaiting implementation are being delayed despite a general understanding on part of the professionals (among experts) that implementation should be carried through. Politically sensitive issues, such as the locations for the drilling of Palestinian wells in the West Bank, are generally blocked by Israel for hydrological reasons but it seems that there are often political reasons for those decisions. Israeli officials also unofficially acknowledge this. Furthermore, while the ambiguities that exist in the agreements are useful when trying to reach an agreement, they work as obstacles in the post-agreement phase when they are to be implemented. For example, the lack of provision for drought in the Israeli–Jordanian agreements has served to create tension between the parties and has thus tested the robustness of the agreement. It is concluded that the power asymmetry between the parties, which is particularly evident in the case of Israel and the Palestinians, effectively gives Israel the upper hand in the decisions with regard to the implementation of the agreements.

Furthermore, it is noted that, in comparison, the Israeli–Jordanian cooperation and implementation of the agreement can be described as fairly smooth while the Israeli–Palestinian cooperation and implementation of the Interim Agreement have encountered

obstacles. These obstacles cannot be attributed to problems of cooperation on a professional level. They are rather the result of the surrounding political circumstances which are much more sensitive and problematic in the case of Israel and the Palestinians than in the case of Israel and Jordan.

In spite of the problems in implementation there exists a kind of contained mechanism that guides the action of the parties. This can be called a water regime. While this does not imply that there are no problems in the sector, it is concluded that the evolving principles, norms, rules and decision-making procedures resemble a water regime. In addition, during times of pressure on the regime, such as the drought in 1999, which resulted in strained relations between Israel and Jordan, or the Intifada between Israel and the Palestinians that started in September 2000, the water regime has showed robustness and resilience although its effectiveness has been hampered. Hence it is concluded that the international water regimes that exist might be seen as a conflict-mitigating factor since they promote basin-wide interstate cooperation and thereby increase water security. The analysis of the water cooperation in the Jordan River Basin through the prism of regime theory has been helpful in explaining why cooperation has occurred in spite of the significant political conflict. When a convergence of values has occurred within a regime and the cooperation has been institutionalized it is more difficult than one might think to reverse or end this cooperation.

REFERENCES

- Alem, Z., (2002). Personal communication, Amman, Jordan, 10 Mar.
- Allan, J. A. (2002). *The Middle East Water Question: Hydropolitics and the Global Economy* London and New York: I. B. Tauris.
- Barghouti, I. (2002). Personal communication, Ramallah, 27 Nov.
- Ben Meir, M. (2001). Personal communication, Kfar Masarik, Israel, 29 Apr.
- Cantour, S. (2001). Personal communication, Tel Aviv, Israel, 30 Apr.
- Dinar, S. (2000). Negotiations and international relations: a framework for hydropolitics, In: *International Negotiation*, 5(2), 375- 407
- el-Nazer, H. (2002). Personal communication, Amman, Jordan, 11 Mar.

- el-Nazer, H. (1997). The partition of water resources in the Jordan River Basin: history and current development, Paper presented at the Conference on Water in the Mediterranean Countries: Management Problems of a Scarce Resource, Naples, 4–5 Dec.
- Feitelson, E. (2001). Personal communication, Jerusalem, 24 May
- Haddadin, M. (2001). *Diplomacy on the Jordan: International Conflict and Negotiated Solution*. Boston, Mass. and London: Kluwer Academic
- Haddadin, M. (2002). Personal communication, Delft, The Netherlands, 20 Nov.
- Hasenclever, A. Mayer, P. and Rittberger, V. (1997). *Theories of International Regimes*. Cambridge: Cambridge University Press.
- Itzkovitz, N. (2002). Personal communication, Antalya, Turkey, 2 Nov.
- Jarrar, A. (2002). Personal communication, Delft, The Netherlands, 22 Nov.
- Jarrar, A. and Yousef A., (2002). Water from conflict to cooperation: Palestine and Israel case, Paper presented at the UNESCO-GCI PCCP-Water for Peace Conference in Delft, 21 Nov.
- Jeusi, A. (2002). Personal communication, Amman, Jordan, 9 Mar.
- Keohane, R. and Nye, J. (1989). *Power and Interdependence* New York: HarperCollins
- Krasner, S. (1983). Structural causes and regime consequences: regimes as intervening variables. In: S. Krasner (ed.), *International Regimes* Ithaca, N.Y.: Cornell University Press.
- Levy, M. A., Young, O. R. and Zürn, M., (1995). The study of international regimes. In: *European Journal of International Relations*, 1(3), 267-330
- Mahadin, K. (2002). Personal communication, Amman, Jordan, 9 Mar.
- Mahasneh, D. (2002). Personal communication, Amman, Jordan, 9 Mar.
- Mayer, P., Rittberger, V. and Zürn, M. (1993). Regime theory: state of the art and perspectives. In: V. Rittberger (ed.), *Regime Theory and International Relations* Oxford: Clarendon Press. pp. 391–430.
- Muscal, T. and Lahoud, L. (2002). Eitam suspends approval for PA well drillings. In: *Jerusalem Post*, 23 Oct.

- Mutaz, M. (2002). Future of the Dead Sea: history will judge us. In: *Jordan Times*, 18 Dec.
- Schiff, Z. (2001). Unlikely cooperation, In: *Ha'aretz* (English version), 13 Feb.
- Shamir, U. (2001). Personal communication, Haifa, Israel, 30 Apr.
- Trottier, J. (1999). *Hydropolitics in the West Bank and Gaza Strip*. Jerusalem: PASSIA
- Waterbury, J. (2002). *The Nile Basin: National Determinants of Collective Action* New Haven, Conn. and London: Yale University Press,
- Hay, C. (2002). Structure and agency. In: Marsch D. and Stoker G. (eds), *Theory and Methods in Political Science*. London: Macmillan.
- Wolf, A. (1993). Water for peace in the Jordan River watershed. In: *Natural Resources Journal*, **33**(3) 797–839.
- Young, O. (1989). *International Cooperation: Building Regimes for Natural Resources and the Environment*, New York: Cornell University Press.