Marine Transboundary Conservation and Protected Areas

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Chapter 5

Remembering the Red Sea Marine Peace Park

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Summary

When Israel and Jordan signed their historic peace accord in 1994, policy makers strove to set up operational frameworks for projects that would foster the continued development and stabilization of relations between the two countries. With the intense involvement and significant financial backing of the United States (US) State Department, the idea of establishing a jointly managed marine protected area (MPA) between the two countries in the northern Gulf of Aqaba – the Red Sea Marine Peace Park (RSMPP) – was born. This unprecedented endeavor had three aims:

- initiating a joint biological monitoring program;
- development of a joint management plan based on the results of the monitoring program; and
- outreach to the adjacent communities and stakeholders about the park and its management with the purpose of normalizing relations between the residents of Jordan and Israel.

Unfortunately, in the twenty years that have passed since this groundbreaking accord, and the initiation of work on the RSMPP, most of what was planned has not come to fruition. This chapter examines these failures, alongside some limited success, within the context of historical events and the changing political climate between Jordan and Israel and in the region. It chronicles what happened in the aftermath of the withdrawal of US State Department support for the endeavor, both financial and practical.

The marine environment is inherently ambiguous when it comes to both political and ecological boundaries. This leads to cross-border marine conservation initiatives implemented by multiple authorities and stakeholder groups (Grilo, 2010). Often, borders and contested jurisdictions are also the source of dispute between neighboring coastal states, and a great challenge to moving forward with conservation and protection. Therefore, some cross-border efforts may be less stable and more likely to fail than if they were implemented solely by regional,
national or local authorities with borders defined by the limits of the jurisdiction of
a single entity (Mackelworth, 2012). In any case, striving for cross-boundary
protected areas is important and well worth the effort. Ecosystems do not follow
socially constructed anthropogenic borders and therefore transboundary efforts at
protection can go a long way to improve environmental conditions, especially in
the marine environment.

We contend in this chapter that the Red Sea marine border has a double
(ambiguous) nature when it comes to Israel-Jordanian cooperation and that this
has led to myriad challenges in establishing a significant protected area between
the two countries. We document the development of the RSMPP initiative
between 2003 and 2014 and attempt to understand why this collaborative project
did not reach its full potential. As much as this case study can serve as an example,
our analysis highlights lessons to be learned for other cross-border marine
protected areas (MPAs), especially those planned in areas characterized by a
history of conflict.

**Background: Israeli-Jordanian relations and
cooperation since 1994**

By the time a formal peace treaty was signed between Israel and Jordan in 1994,
the two states had been collaborating “behind the scenes” for almost four decades.
This collaboration included strategic and functional cooperation agreements
regarding the Gulf of Aqaba and the management of other shared natural
resources, such as the Dead Sea or water resources in the West Bank (Arieli,
2012; Garfinkel, 1992; Lukaes, 1999). In 1994, ties between Israel and Jordan
were formalized and this yielded several new forms of joint projects. These
included cross-border collaborations such as municipal-level cooperation between
the neighboring coastal cities of Eilat, Israel, and Aqaba, Jordan, that went on

Multi-faceted municipal cooperation was relatively comprehensive compared
with other types of cooperation. It involved significant shared interests of the
largest swath of residents along the Israel-Jordan shared border. During these
years, eight joint committees focused on the subjects of trade and economy,
tourism, infrastructure, emergency services, health, education, culture and sports,
transportation, border crossing and environment, although only a small number
of the committee recommendations were fully adopted. The work of these
cooperative forums severely diminished after 2009, with only limited municipal
collaboration continuing since, often through less formal (and less noticeable)
channels of communication between local government representatives. This was
mainly due to the growing opposition in Jordan to the normalization of relations
with Israel (Arieli, 2012).

At the time Israel and Jordan signed the ground-breaking peace accord, two
other significant joint projects were planned which were destined to significantly
impact the southern regions of both countries. One was the Red Sea-Dead Sea
the limits of the jurisdiction, striving for cross-boundary efforts. Ecosystems do not follow the administrative borders set forth transboundary efforts at solving natural conditions, especially in marine borders. Each marine border has a double role of cooperation and that this serves a larger protected area between countries. The RSMPP initiative is an example of this collaborative project. This study can serve as an example, where other cross-border marine areas can be used.

Regional Cooperation

Israel and Jordan in 1994, signed the controversial “Terrorist List” agreement for almost four decades. The agreement called for the establishment of joint projects in the West Bank (Ariel, 2015) and cooperation agreements between Israel and Jordan in economic development, tourism, education, and the environment. The joint projects, however, were limited to two main areas: Aqaba, Jordan, and the Red Sea. This cooperation agreement for the shared border. During these joint projects, the benefits of trade and economy, tourism, education, culture, and sports, along with limited municipal meetings (and less noticeable) between representatives. This was a step towards normalization of relations between Israel and Jordan, and the two countries agreed to establish a joint peace accord, with the establishment of the Red Sea–Dead Sea

Canal (RSDSC) and the other was the Red Sea Marine Peace Park (RSMPP). As of the writing of this chapter (2015), the RSCSC, still in its planning phases, is expected to include pumping of water from the Gulf of Aqaba, desalinizing the water and transferring the brine via pipes to the Dead Sea (i.e. with water of high salt content). The original goals of the RSDSC were to provide desalinated drinking water to Jordanian, Palestinian, and Israeli citizens in the Jordan Valley, stabilize the Dead Sea water level, generate hydroelectricity and, of course, promote regional peace. However, as of February 2015, the agreement to proceed with the project had been signed between Israel and Jordan, but without the Palestinians (Al-Khalidi, 2015; Al-Omari et al., 2014; Beyth, 2007; Donnelly, 2014).

The second program, the Red Sea Marine Peace Park (RSMPP) was initiated (and has been financed for some time) with major support from the US government. As its name denotes, this park was designed to be a peace-promoting joint effort to research, monitor, manage, and preserve environmental quality in the Gulf of Aqaba. In addition to having numerous eco-tourism and recreational values, these waters (covering an area of approximately 70 square km) contain impressive and highly threatened corals. In this location coral reefs exist at their northernmost latitude in the entire western Indo-Pacific region (Al Naji, 2005; Portman 2007).

History: the Red Sea Marine Peace Park (RSMPP)

The RSMPP project aimed to establish a MPA in Israel’s and Jordan’s Red Sea marine area (see Figure 5.1). Its kick-off meeting was held at a US-led workshop in the city of Aqaba in 1996. The project was designed to include three major elements:

- a joint monitoring program;
- a joint management plan based on the results of the monitoring program;
- and
- outreach to the adjacent communities and stakeholders about the RSMPP and its management.

The premise was that outreach would bring the residents of both Jordan and Israel closer to normal relations (Portman, 2007). Although other peace parks between Israel and its neighbors were proposed,1 the RSMPP was the only transboundary peace park to include Israel that was actually proposed along an Israeli–Arab country border that actually reached the formal proposal stage (Sadik, 2014).

Several institutions were involved in the RSMPP initiative. The leaders of the initiative were the Israel National Parks Protection Authority and the Inter-University Institute (IUI) for Marine Sciences in Eilat. On the Jordanian side, the Aqaba Special Economic Zone Authority (ASEZA)2 and the
Jordanian Marine Science Station were involved. Third-party organizations from the United States also took part, namely the National Oceanic and Atmospheric Administration (NOAA) and the Agency for International Development (USAID). USAID provided most of the funding, and Israel and Jordan both gave in-kind contributions. The Jordan Global Environment Facility, sponsored by the World Bank, provided additional funds, while NOAA financed and led the overall project coordination (Gabay, 1997; Portman, 2007).

The RSMPP proposal met both Jordan’s and Israel’s interests in strengthening political ties following the peace treaty of 1994. The two countries also realized the importance of protecting the coral reefs, and the main agencies involved understood that joint management would be needed. Collaboration began immediately with two ships, one Israeli and one Jordanian, were assigned to the area in order to cooperate as part of a bilateral emergency force that would be in charge of handling pollution events in the northern Gulf. In 1995, a short while before the RSMPP program began, Israeli and Jordanian crews cooperated in cleaning up 30 metric tons of oil spilled in the port of Aqaba, thereby averting an ecologic disaster and preventing extensive harm to the coral reefs (MoEP, 2015).
As part of the trilateral talks of October 1994, delegates from the US, Israel and Jordan met in Eilat to discuss tourism, environment, border security and water issues (including fresh water supply and marine-related issues). During these discussions, it was agreed that the RSMPP would aim to preserve coastal ecosystems and their biodiversity, help prevent environmental deterioration, and rehabilitate damaged coastal and marine resources. Furthermore, the promotion of environmental awareness among the public was needed as well as clear identification and stipulation of research needs. Economic development was another goal of the RSMPP, based on the understanding that tourism and recreational uses within the park could be great assets to both countries.

The advantages of the potential scientific cooperation became clear after both states had previously taken steps individually to protect coral with their own jurisdictions. Scientists on both sides understood the need to collect essential data for the creation of an identifiable baseline with respect to the physical, biological and chemical oceanographic data, as well as data pertaining to sedimentary conditions and inputs, and distribution and pathways of pollutants. This type of data sharing was expected to create more comprehensive regional data to assist in monitoring environmental change and identifying major pollutants and their sources (NOAA, 2007; Wahbe, 1993). Once collaboration began, rehabilitation of degraded coral habitats did occur for various reasons, rendering the knowledge of baseline conditions very important (Genin, personal communication, 30.09.2014; Shaked, personal communication, 06.10.2014).

In December 1997, the USAID/MERC (Middle East Regional Cooperation) program approved a joint proposal submitted by NOAA, Israel, and Jordan entitled: “A Cooperative Research, Monitoring and Management Program to Address Pressing Environmental and Development Issues in the Bination Red Sea Marine Peace Park-Gulf of Aqaba/Bay of Eilat”. In September 1999 the three-year project was launched including two components (NOAA, 2007; MoEP, 2014a):

- cooperative management; and
- community outreach.

The monitoring program was well underway when these two components were decided upon. This project, composed of joint management and outreach, was more complex than monitoring because it involved a much greater number of people, more significant involvement of the public-at-large, greater funding and greater involvement of the third party (the US) to bring participants of both countries together. Therefore, as on-the-ground political relations between the two countries deteriorated, the progress of these two components suffered.

The environmental motives for protecting the northern Gulf of Aqaba were clear. The need for environmental controls and improved management was deemed to be crucial. It was feared that the area could become a degraded “sink” for pollutants and ultimately a “dead zone”. This would not only damage the
unique resources of the area but also decrease opportunities for tourism, recreation and general economic development (Portman, 2007). At the time that the peace agreement was signed in 1994, a marked deterioration in water quality and in the quality of the coral reefs of the Gulf had been observed for several years. Unfortunately, these trends continued. In 1996, about 70 percent of the corals were alive on the Eilat side of the northern Gulf; by 2001 this statistic had reversed, with only 30 percent of the corals detected as living (MoEP, 2014a). The Israeli Ministry of Environmental Protection reported in 2001 the reefs were: "plagued by lost diversity, decrease in coral cover, low rates of coral-larval settlement and recruitment, decreased rates of coral reef calcification, coral mortality, and increasingly intense macro-algal blooms during spring" (MoEP 2014a).

Reportedly, die-offs were caused by anchoring, scuba divers and snorkelers. Further, Eilat’s waters suffered from sustained inputs of nutrients and organic carbon from sewage and waste from the Eilat marina, releases of ballast water from bulk carriers in the harbors, as well as the harmful effects of mariculture byproducts. Overall, the total nitrogen quantities in the RSMPP area doubled between 1997 and 2003 (MoEP, 2014a).

The RSMPP project officially ended in 2003, but at the international symposium that marked its conclusion, the MoEP and the ASEZA signed a Memorandum of Understanding (MoU) to continue a monitoring and data management program in the Gulf of Aqaba. The MoU called for the monitoring of coral reef fish, circulation patterns, zooplankton, bio-geochemical dynamics and reef metabolism. It would also supply coral reef mapping (MoEP, 2005). The agreement confirmed the intent of both states to continue to:

cooperate in maintaining the core elements of a recently initiated ecosystem monitoring and data management program in the northern Gulf of Aqaba, as based upon the transboundary Red Sea Marine Peace Park cooperative Research, Monitoring and Management Program."

(NOAA, 2007; MoEP, 2014a)

As expected, due to the instability of relations between the two countries, the MoU did not include joint management or outreach plans, and each state went back to managing its own marine territory, including its preservation and monitoring activities (see Figures 5.2 and 5.3). Any outreach that occurred was done on a local level in either Aqaba or Eilat.

Despite cooperation and the contributions of the RSMPP, political events and the stressed relations between the two countries have had their impact. Since the official conclusion of the project the bi-annual joint monitoring expeditions and data sharing continued (Genin, 2014, personal communication; Shaked, 2014, personal communication), but most of the reporting was done separately, evidence of a reduction in cooperation. On a positive note, a new report summarizing the Israeli efforts and data acquired in 2013 was published by the IU (Shaked and Genin, 2014) and includes a comprehensive survey of the
current status of the corals on the Israeli side of the Gulf of Aqaba. While the report does not mention any data received from Jordanian efforts or joint expeditions, IUI scientists have stated that the opportunity to compare data with those received from the Jordanian side have enabled them to have a better understanding of the effect of variables such as local outflows and the sources of land-based pollution, and to separate those effects from natural regional processes affecting reefs on both sites (Genin, 2014; Shaked, 2014).

Figure 5.2 The regional context
Recent years: environmental and scientific cooperation

By 2005, the project achieved the one objective of cooperative research and monitoring of the RSMPP area (MoEP, 2005; Genin, 2014; Shaked, 2014). Since then, and until 2014, albeit with little or no attention from outside (even among the academic community) and no official initiative, cooperative efforts have included joint dives, sampling and meetings for discussion of the research findings. Two lasting aspects of the program demand attention in this regard: environmental and programmatic.

Despite the mired cooperation, data gathered through Israeli–Jordanian cooperation has confirmed hoped-for environmental improvement. According to the 2013 Israel National Monitoring Program at the Gulf of Aqaba report (Shaked and Genin, 2014), the state of Eilat's coral reefs, as reflected in the
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cooperative research and 2014; Shaked, 2014). Since from outside (even among cooperative efforts have the research findings. In this regard: environmental through Israeli-Jordanian improvement. According to the Gulf of Aqaba report reefs, as reflected in the various proxies measured by the monitoring program, show improvement. This supports findings from previous years indicating a gradual positive trend. In fact, live coral cover at the reefs of Eilat has gradually increased since 2004. The report further states that there is also a good correlation between coral cover and colony density at the reef sites, attributed in part to the removal of mariculture fish cages from the area.

Since 2005, only the monitoring program has continued and it has done so on a modest basis compared with the expectations of the mid-1990s. Since the beginning of the Israel-Gaza conflict (in July 2014), even the research and monitoring cooperation between the Jordanian side and the IUI in Eilat (the main Israeli partner) has faltered. Joint research vessel tours that had been held bi-annually, once in winter and once in summer, since 2003 were cancelled in September 2014 (Genin, 2014; Shaked, 2014).

Although the relations between the countries have developed following the 1994 peace treaty, and the Israel-Jordan border region is relatively peaceful, they are still far from normalized and are significantly burdened by ongoing Israeli-Palestinian tensions (Arieli, 2012). With few exceptions, Jordanian nationals avoid contact and withdraw their participation in Israeli-related initiatives (Arieli, 2012; Cohen and Ben-Porat, 2008).

Israeli-Palestinian tensions have always affected the relationship between Israel and Jordan. The Jordanian disengagement from the West Bank in 1988 was a catalyst to the Oslo Accords signed between Israel and the Palestinians in the 1990s (Lukacs, 1999), and the 1994 peace treaty between Israel and Jordan includes a clause in which both states agree to cooperate in resolving the Palestinian refugee situation (MFA, 1994), evidence of the linkages between the issues in the region. Palestinian-related tensions between Israel and Jordan reached their peak during the three extensive military operations in Gaza and clashes between Israeli and Palestinian forces in 2008–9 (Xinhuasnet, 2009), 2012 (Ahren, 2012) and most recently during the summer of 2014 (Wilner, 2014). These operations have had effects on relations between the research teams, at least in their official capacity.

**Causes for success and failure of transboundary protected areas**

As of 2000, it was estimated that TBPsAs represent 10 percent of the world’s network of protected areas (Agrawal, 2000). Transboundary environmental initiatives fall into many categories with the common thread being the knowledge that ecosystems do not follow clear, socially constructed anthropogenic borders. This claim is especially true in the marine environment (Agardy, 2000; Grito, 2010; Guerreiro et al., 2010).

Much of the literature about transboundary environmental protection addresses regulation (e.g. Van Nijnatten, 2003). However, here we are concerned with joint conservation initiatives and agreements, and particularly those dedicated to
the establishment and management of protected areas. A second focus is that of peace-building through environmental conservation and the way these two aspects—conservation and peace—can build on each other and promote synergies. Additionally, although our focus is on transboundary marine conservation, there is much to be learned from past terrestrial cases (see also Introduction).

Literature on transboundary initiatives in the marine environment is limited and is even more limited when the focus is on areas characterized by conflict. Based on a review of nine case studies that took place in the 1990s and 2000s, Mackelworth (2012) contends that combining conservation with the promotion of peaceful relations provides added value for cooperation. A more specifically conservation-focused review, published by the World Bank (2007) identifies the key factors affecting implementation and outcomes of transboundary reserves, as part of the groundwork for a project it sponsored in the Mesoamerican Barrier Reef System. This review focused mostly on the financial, economic, institutional and administrative aspects of protected areas (see also Chapter 14). Other areas of research focusing on cross-border marine conservation efforts are in the area of fisheries management (Vetemaa et al. 2001) and long-term ecological research networks that bring about effective cross-border monitoring (e.g. Svazas et al., 2005; Bouyer et al., 2007; Likens, 2010). Such research is highly relevant to the RSMPP case.

In regards to the peace-promoting aspects of cross-boundary protected areas, Barquet et al. (2014) studied different cases to see whether these have a positive influence on reducing inter-state disputes. They found that the existence of TBPA could be related to more peaceful relations between neighboring countries in Africa, the Middle East and Asia, but this was not the case in Latin America.

Several studies have been conducted in an attempt to map the causes for success or failure of transboundary conservation initiatives or TBPA projects. Some of the more comprehensive ones include those of Barquet et al. (2014), Westing (1998), IUCN (2001), Mackelworth (2012), and the World Bank (2007). Some of their main conclusions are summarized in Table 5.1. Barquet et al. (2014) conducted a quantitative meta-analysis of TBPA established in 1949–2001 covering 328 countries, including many that have a history of militarized disputes (since the nineteenth century). Phillips (1998) summarizes the main points from the International Conference on Transboundary Protected Areas as a Vehicle for International Cooperation, which took place in South Africa in 1997. Sandwith et al. (2001) offer “Good Practice Guidelines” for transboundary protected areas for peace and cooperation, based on the proceedings of the International Symposium on Parks for Peace (Bormio, Italy, 1998) and the follow-up Parks for Peace: Promoting a Global Partnership (Gland, Switzerland, 2000). These guidelines can also be relevant to the RSMPP case, as they include recommendations on related issues such as dealing with tension or conflict, common values, involving local population, promoting coordination and cooperation, joint monitoring and working towards sustainability.
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<tr>
<th>Factors</th>
<th>Rationale</th>
<th>Source</th>
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<tbody>
<tr>
<td>Economic profitability</td>
<td>While not all TBPAs are profitable, those that create financial</td>
<td>Barquet et al., 2014; Mackelworth, 2012; World Bank 2007</td>
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<td>profitability (especially from tourism) are more likely to succeed and</td>
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<td></td>
<td>continue</td>
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<td>Funding/financial sustainability</td>
<td>Funding, by 3rd parties and governments should be stable and last long</td>
<td>Barquet et al., 2014; IUCN, 2001; Mackelworth, 2012; Phillips, 1998; World Bank, 2007</td>
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<td></td>
<td>enough for the project to be successful and sustainable</td>
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<td>Security and border control</td>
<td>For TBPAs to be successful in areas of recent conflict, parties must</td>
<td>IUCN, 2001; Mackelworth, 2012, Phillips, 1998</td>
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<td></td>
<td>feel that security considerations are addressed</td>
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<td>Third-party involvement</td>
<td>Third-party facilitators (e.g., 3rd states or NGOs) can help maintain</td>
<td>Mackelworth, 2012</td>
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<td>financial viability, objectivity and focus, but also cause a perceived</td>
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<td>asymmetry and raise suspicion of having a &quot;hidden agenda&quot;</td>
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<td>Long-term Planning</td>
<td>As TBPAs, especially wildlife reservations or protected areas, need long-</td>
<td>Barquet et al., 2014, Phillips, 1998; World Bank, 2007</td>
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<td>term planning, including platforms or mechanisms for cooperation, to</td>
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<td>achieve significant results; otherwise they will &quot;die down&quot; after a few</td>
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<td>years</td>
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<td>Legislation</td>
<td>Cross-border preservation and cooperation efforts must be made</td>
<td>Barquet et al., 2014; World Bank, 2007</td>
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<td>possible, supported and promoted by the laws and regulations of</td>
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<td>participating parties. Similar rules and regulations between states</td>
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<td>support consistency and therefore success</td>
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<td>Number of participants</td>
<td>Jurisdictional and legislative differences become more problematic the</td>
<td>Barquet et al., 2014; World Bank, 2007</td>
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<td>more actors are involved</td>
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<td>Environmental status</td>
<td>Although protecting biodiversity and preservation are a central part of</td>
<td>Barquet et al., 2014</td>
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<td>all TBA initiatives, focusing only on these issues does not &quot;hold&quot; a</td>
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<td>project</td>
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<td>Transparency and raising</td>
<td>Sharing information with the public and raising public awareness to the</td>
<td>Mackelworth, 2012; World Bank, 2007</td>
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<td>public awareness</td>
<td>ecological matters and efforts promoted by the TBA encourage public</td>
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<td>support for the project</td>
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<td>Factors</td>
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<td>Government motivation and commitment</td>
<td>Government motivation and commitment are necessary for the project to be financially and practically viable, and for it to benefit from support in terms of policy, supporting rules and regulations, etc.</td>
<td>Barquet et al., 2014; IUCN, 2001; Mackelworth, 2012; World Bank, 2007</td>
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<td>Level of stakeholder interest</td>
<td>The support of governmental and non-governmental stakeholders relies on whether they view the project as beneficial to their interests, financial, political, environmental or other</td>
<td>Barquet et al., 2014; Mackelworth, 2012; World Bank, 2007</td>
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<td>Equality and balance between parties</td>
<td>When division of funds, labor, power or responsibility between participating states is seen as imbalanced, it could decrease willingness to further advance TBPAs</td>
<td>Barquet et al., 2014; Phillips, 1998</td>
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<td>Engaging of stakeholders and community</td>
<td>A public participation process taking place during or before the initial planning phase has proven to be beneficial to the longevity and success of TBPAs</td>
<td>IUCN, 2001; Phillips, 1998; World Bank, 2007</td>
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<td>Strong promoting party</td>
<td>Whether governmental or non-governmental, participant, or third party, a strong promoting organization or body helps advance TBPAs and keep them relevant over time</td>
<td>Mackelworth, 2012; World Bank, 2007</td>
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<td>Initiatives become part of national efforts</td>
<td>In order for them to survive and thrive, TBPAs should become a part of another national effort (political, financial, social, or other), and not merely focus on preservation for preservation's sake</td>
<td>Barquet et al., 2014; Phillips, 1998; World Bank, 2007</td>
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<tr>
<td>Project monitoring and evaluation Urgency</td>
<td>Monitoring the progress of TBPAs helps keep them sustainable over time as emerging problems are identified and tended to. A sense of environmental urgency (e.g., acknowledgement of a threshold or &quot;point of no return&quot;) can contribute to the motivation of states and other stakeholders to cooperate in order to solve an urgent environmental problem</td>
<td>IUCN, 2001; Phillips, 1998; World Bank, 2007</td>
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<td>Identifying and promoting common values and visions</td>
<td>Common values are a platform for cooperation; values can include environmental but also social, financial, and even religious or pan-national values and shared visions</td>
<td>IUCN, 2001; Phillips, 1998</td>
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<td>Learning from previous operations</td>
<td>As in other cases, learning about previous similar attempts has been found to be beneficial for planning successful TBPAs</td>
<td>World Bank, 2007</td>
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Analysis of the RSMPP in light of factors from the literature

The following is an analysis of the existing RSMPP elements that relate to the aforementioned factors derived from the literature on TBPAs and the extent of their success or failure. While some factors are relevant to this particular case, others are not or alternatively we lack accessible information to evaluate their relevance. Also, some aspects of the RSMPP and the subsequent research and monitoring cooperation efforts can be related to more than one factor listed in Table 5.1.

Profitability, funding and sustainability

Profitability, frequently gained from tourism, can be a significant factor in the success of TBPAs (Barquet et al. 2014; Mackelworth, 2012; World Bank 2007). For instance, the opportunity for economic profit in Africa from tourism was an incentive for organizations and private actors to fund TBPAs. NGOs, government agencies and for-profit organizations, as well as the communities themselves, are all potential beneficiaries of the establishment of such areas (Barquet et al. 2014), particularly where beaches and coastal activities are a factor (Guerreiro et al., 2010). Profitability also raises government and stakeholder interest in the project and can facilitate more funding opportunities.

In the case of Israel and Jordan, however, the current science and monitoring of the Israeli–Jordanian cooperation does not include any focus on promoting tourism or other market goods (see Chapter 3). This is despite municipal cooperation between Aqaba and Eilat and the importance of tourism to local income on both the Israeli and Jordanian side of the Gulf. Previous suggestions made in the 1990s included a combined free tourism zone (FTZ) between Eilat, Aqaba and Taba (Egypt), although these were never accepted by Jordan or Egypt (Kliot, 1997).

After tourism- and public-oriented activities were halted in 2002, and after USAID funding for cooperation ended, the project focused almost exclusively on research activities. Each side led their own public outreach and education about the Red Sea environment as well as their own monitoring projects. Scientists continue to receive funding individually from their universities and governments although this is part of the routine work and not perceived or financed as large, full-scale research projects (Genin, 2014). On the one hand, it is in the interest of researchers to cooperate to improve their data. Such interests can drive collaboration and transboundary initiatives in the marine environment where research is complex and expensive (e.g. Wilkinson, 2014). On the other, a general national, university, public or personal political agenda against collaboration can be a significant obstacle.

Planning and sustainability of transboundary efforts for environmental cooperation require long-term project cycles, as well as intense planning. Also,
the number and type of actors involved in the establishment of TBPAs could influence the governments' willingness to establish and maintain cooperation with the neighboring country (Barquet et al. 2014). Such concerns are weighed by Guerriero et al. (2010) in options considered for TBMPA planning in East Africa. While external facilitating parties have the potential to increase funding and capacity, their involvement may be time-limited. In the RSMPP case, having a third party involved, and for some activities even a fourth (Egypt), has kept some aspects of the RSMPP monitoring program alive. From its inception, the RSMPP program was time-limited to a few years, during which it was supported financially by third parties (USAID and NOAA). USAID has also continued to support annual meetings between Israeli and Jordanian Red Sea scholars since 2004 (Genin, 2014). Although Egypt is not a participating member of any current efforts, Egyptian officials still attend some meetings that have to do with recent Israeli–Jordanian cooperation for the preservation of the Red Sea (Sadeh, 2014). External third-party support is usually very limited.

**Security issues**

Arieli (2012) describes two ongoing security-related trends that limit Israeli–Jordanian local educational cooperation efforts. One is with regard to border-crossing and security policies. In particular, it is difficult for Jordanian officials and business people to obtain entry visas to Israel. Educational and scientific activity among students is also limited, and Israeli students are prevented from entering Jordan as part of school activities by the Israeli Ministry of Education due to security concerns.

Issues of security also hinder academic cooperation. First, although it is legal for Israelis to cross the border into Jordan and to dive in the Jordanian Red Sea natural reserves, the IUU in Eilat chooses not to send researchers to conduct fieldwork without their Jordanian counterparts due to fears for their safety. This follows from the Israeli Ministry of Foreign Affairs' travel warning for Israelis visiting Jordan (Genin, 2014). At the same time, Jordanian scientists and officials encountered difficulties when attempting to obtain a visa for Israel, and therefore most meetings are held in Jordan (Sadeh, 2014).

Comparably, collaboration on marine science and conservation between the USA and Cuba is similarly problematic. When meetings are held in the US, Cuban officials have had trouble obtaining visas and joint deliberations have had to be postponed. The US embargo on Cuba has caused other problems such as difficulty in transporting and using American technical equipment in Cuba for the purposes of marine scientific research and monitoring (Wilkinson, 2014).

**Legislation and politics**

According to Barquet et al. (2014), how people use and define protected areas, and how they incorporate that definition within their legislation, determines the
establishment of TBPAs could and maintain cooperation. Such concerns are weighed against or TBMPA planning in East potential to increase funding. In the RSMPP case, having a fourth (Egypt), has kept it alive. From its inception, the funding which it was supported through US Aid has also continued to give Red Sea scholars since each country is a member of any current that have to do with recent or not the Red Sea (Sadeh, 2014).

Protected trends that limit Israeli–Jordanian relations with regard to border difficulties for Jordanian officials are also high. Educational and scientific students are prevented from entering Israel by the Ministry of Education. First, although it is legal for Israeli researchers to conduct research in the Jordanian Red Sea because they are in the process of extending their visa for their s. This leads to fears for Israeli scientists and officials in Jordan, and therefore for academic and conservation. Additionally, meetings are held in the US, and joint deliberations have had to be cancelled as a result of political sensitivities in Cuba for security reasons (Wilkinson, 2014).

The establishment and management of protected areas, for example, is determined by legislation, determining the types of actor involved in the establishment and management of TBPAs. The Israel National Outline Scheme for Nature Reserves and National Parks (NOS 8) is one of the oldest, originally approved in 1981. Israeli nature parks and reserves legislation offer three levels of protection: landscape reserves, national parks and nature reserves. The Jordanian regulation offers only two levels of protection for the RSMPP: a marine reserve designated as a “no take, limited entry” area, and a general marine park area that has fewer restrictions (Portman, 2007). If an MPA had been established between the two countries, with zones offering variable levels of protection in a management plan, the differing legislations may have required RSMPP-specific legislation and/or the creation of new regulations.

Academic and environmental information-sharing and debate might exist in separate spheres regardless of political views and events. Politics were reportedly avoided at joint scientific Israeli–Jordanian meetings and discussions since 2003, thereby minimizing its influence on the environmental–scientific cooperation (Sadeh, 2014). Wolmer (2003) contends that, when TBPAs involve politically sensitive situations on a local, national, regional or international level, there is a need to proceed slowly and cautiously, avoiding political grandstanding and using rhetoric that might damage the cooperation. The omission of politics curtails the ability to translate cooperative achievements of a TBPA into political progress. The recent RSMPP collaboration does not contain elements that significantly and outwardly influence or incorporate the non-scientific community or local residents, and does not include social or economic related features (e.g. promoting cross-border tourism in the Gulf area). As such it has less influence on the overall Israeli–Jordanian relationship.

Profitability, as well as public and stakeholder economic interests have been found to be central to the sustainability and success of TBPAs (Barquet et al. 2014; IUCN, 2001; Mackelworth, 2012; Phillips, 1998; World Bank, 2007). The main financing third party, USAID, has dramatically reduced its involvement in the project for the past several years, which has contributed to the decreasing level of collaboration. However, it should also be noted that the limited scope of the cooperation, and the fact that scientists do receive pay for their work from their universities and governments, might suggest that financial profitability and external financing are not the only reasons for decreased cooperation.

The Israeli–Palestinian conflict affects cooperation efforts directly and indirectly. Indirectly, we can observe the reluctance of Jordanians to be perceived as openly cooperating with Israelis. Directly, security and visa issues prevent face-to-face interaction between Israeli and Jordanian officials and other nationals, and thus creates frustration and avoidance of collaborative efforts on both sides. This causes most projects of conservation, research and public participation and education to take place separately, only rarely overlapping, even if cross-border cooperation would aid, and be aided by, joint gatherings.
**Balance and shared vision**

A third-party facilitator – USAID – did not encroach on the initiative (as can sometimes occur: Mackelworth, 2012) but rather provided balanced support to the cooperating states. This contributed to the initial success of the RSMPP. However, two other points were problematic:

- the branding of marine transboundary conservation initiatives as peace parks helped provide initial political impetus to projects, but governmental interest waned over time; and
- while the Jordanian Royal Marine Conservation Society (JREDS) was interested in the effort (with connections to the Jordanian royal family), on the Israeli side the effort lacked high level governmental support.

A historic view would show that circumstances have caused a repeated lack of balance in the level of commitment of both governments for the success of the RSMPP initiative or the subsequent scientific cooperation project. Joint Israeli–Jordanian environmental cooperation in the Gulf of Aqaba since 2004 has continually focused on research and monitoring, yet it has changed over the years. Political considerations cause Jordanian researchers to be less active in their official cooperation with Israelis, at least overtly, than their Israeli counterparts (Genin, 2014; Kliot, 1997; Lukacs, 1999; Shaked, 2014). Israeli efforts for cooperation in the Red Sea are also openly supported, financially and otherwise, by the MoEP (Genin, 2014; Shaked, 2014). This is consistent with other joint environmental projects between Israel and Jordan, such as the most recent project of rehabilitation of the southern part of the River Jordan (MoEP, 2014b). Otherwise the current cooperation is unofficial, mirroring the Israeli–Jordanian state-level relations, a kind of wider, broader picture of national sentiment.

National sentiment often greatly influences environmental protection initiatives and conservation efforts. In Southern Africa, conservation projects have often been linked to the dreams of a reunited Africa, which offer some sort of a shared vision (Barquet et al., 2014; Van Amerom and Büscher, 2005). By contrast, in Latin America, despite the fact that regional integration has been part of the agenda, transboundary cooperation has progressively declined (Barquet et al., 2014; King and Wilcox, 2008; Wakild, 2009). The same is true for Israel and Jordan, where there is more interest in moving apart and making distinctions between the two states than there is for coming together to cooperate.

A shared culture has been found to be an important element when it comes to the success of transboundary collaborative projects (Mackelworth, 2012). Other than for Palestinian populations living in both Israel and Jordan, the general populace of the two countries lack common culture and/or heritage (Kliot, 1997). A common vision could be regional prosperity and stability in the Middle East (Arieli, 2012); however, the tensions between Israel and the Palestinians, and the subsequent de-legitimization of any formal cooperation with Israel by
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Jordanian public opinion and government, have undermined such aspirations. A common vision, if any, for the RSMPP would focus on the creation and maintenance of a healthier marine environment.

There are some advantages to the RSMPP with regard to its location. Arieli (2012) contends that the peripheral nature of the area, being at the extreme southern tip of Israel and at the southwestern corner of Jordan, supports the possibility of cooperation. The RSMPP area contrasts starkly to other more central locations, such as the environs of Amman and Jerusalem, where political- and religious-related tensions are high. Also the exclusive focus on the marine environment and a related low profile in the media is possible because of geographic remoteness from major population centers. Such relative remoteness would probably allow for a greater role for local actors, rather than for national ones. Agrawal (2000) identified benefits for cooperation on the local level (as opposed to national or regional) in the face of tension on the nation-state level. However, Agrawal (2000) also found that this type of cooperation works best if the local communities are involved in the process, which was not the case here.

As Kliot (1997) has stated, the peace process between Israel and Jordan is characterized as "top-down", i.e. between two regimes and two elites (termed "peace from above", rather than "peace from below"). This compares to the situation between South Africa, Tanzania and Mozambique (see Guerreiro et al., 2010). Cooperation for TBPAs works best if local communities are involved in planning and management (Agrawal, 2000). Scientific and environmental cooperation is still done on an interpersonal level and could be considered to constitute some form of bottom-up peace-building, yet it is a long way from the large-scale public participation originally planned for the RSMPP.

Alternatively, Van Nijnatten (2003) presents the 1990s Ozone Annex transboundary cooperation between Canada and the USA as a case that contains similar characteristics of the current Israeli–Jordanian cooperation we discuss. Scientists and environmentalists on both sides created an epistemic community that combined different levels of government. Van Nijnatten deduces that focusing only on the higher levels does not yield a complete understanding of what happens with cooperation 'in the field'. Visible forms of collaboration, on different levels of government, as well as different work relations and epistemic communities, are potentially a significant part of the environmental narrative. Current joint Israeli–Jordanian monitoring efforts therefore take place on a separate level, within a defined epistemic community. This cooperation is on a different level than that of higher government officials, but also not on the community level.

Trust is an important element in the success or failure of peace parks and cross-border conservation initiatives (Barquet et al., 2014). A specific case in the Jordanian–Israeli past cooperation effort is related to a decision by the Israeli government to enforce the removal of mariculture cages in the RSMPP area; evidence of national commitment to environmental protection. This followed major environmental campaigns by numerous Israeli environmental NGOs.
These cages were a major threat to the Gulf’s coral reef and fish population in particular, as well as to the local marine ecosystem as a whole, and were damaging both states’ efforts to rehabilitate the reef (SPNI, 2008). When the mariculture companies threatened to relocate the cages to the Jordanian side, Israeli-Jordanian cooperation and bi-national support for protection of the northern Gulf of Aqaba led to immediate refusal of the Jordanian side to undertake such an arrangement (Sadeh, 2014).

Conclusions: what can be learned from this case?

The Red Sea Marine Peace Park cross-border initiative officially ended more than a decade ago, but it has had lingering effects and a limited, but still active, legacy of research and monitoring cooperation between Israel and Jordan in the Gulf of Aqaba. The project and its extension have helped rehabilitate the marine environment in the Gulf and in particular its coral reef and related ecosystems. Research-based recommendations (some achieved thorough this cooperation) have helped bring about small changes in policy that minimize harmful effects to the marine ecosystems of the area. Coral has improved since the establishment of the RSMPP and current data shows that it continues to improve.

If we put aside the very recent halt in cooperation resulting from the political events in 2014, this cooperation could still be considered to have had some success. Even though the RSMPP remains a paper park, the marine environment is perhaps better off today that it would have been had there been no attempt to establish it. This case has important lessons, especially for similar situations where extremely conflictual relationships existed between countries in the past, a precarious peace has been established, and research and monitoring efforts are of great environmental significance. Such is the case now between the US and Cuba (see Wilkinson, 2014), and between the Republic of Korea and the Democratic People’s Republic of Korea (see Chapter 13).

What are the potential reasons for the relative success of the RSMPP program and what can be learned? The factors driving the partial success of the RSMPP are:

- a strong focus on research and monitoring;
- a focus on the geographically peripheral physical environment which engenders lower public political profile; and
- a sense of urgency with the respect to the loss of and damage to the coral reefs.

There are many lessons to be learned. First, that there are advantages to a TBPA being in a peripheral location. However, periphery also comes with the disadvantage of having less influence on political ties and positive influence between the two states. Second, projects based solely on scientific cooperation are more durable even in the light of continued tensions at higher diplomatic
Reef and fish population in the Red Sea are highly valued, and efforts to rehabilitate the marine environment have been ongoing. This cooperation helps to maintain a balance between economic development and environmental protection. The establishment of a marine protected area (MPA) in the Gulf of Aqaba is one example of such a collaboration. This initiative has successfully managed to balance conservation goals with economic benefits.

In this case?

In the context of the Gulf of Elat, the collaborative project was successful in implementing measures to protect the marine environment. The establishment of a nature reserve and the implementation of sustainable fishing practices have contributed to the conservation of coral reefs and other marine ecosystems. The Gulf of Aqaba, with its rich biodiversity, is a prime example of how international cooperation can lead to positive outcomes for both the environment and the economy.

Notes

1 In her PhD dissertation, Sadie (2014) has reviewed two other proposed TBPA’s between Israel and its Arab neighbors: first, the initiative to establish a peace park in the South Sinai Peninsula, as part of a wider nature conservation effort that followed Israeli-Egyptian peace negotiations; second, a more recent set of proposals (1994-2009) to establish a peace park on the Golan Heights, as part of negotiations (some formal and some informal) between Israel and Syria.

2 The municipality’s economic development authority.

3 Gulf of Aqaba is the Jordanian (and international) name and Gulf of Elat is the Israeli name for the same area. However, today these are just semantic differences and Jordan and Israel’s Red Sea borders are not in dispute.

4 Located in Elat but affiliated with Hebrew University of Jerusalem.

5 The report refers to the “Gulf of Elat” – a term sometimes used in Israel to describe the Gulf of Aqaba.

6 The monitoring program, in which some IUI researchers participate, is sponsored by the Israeli Ministry of Environmental Protection.

7 In 2005, the Israeli government decided that the fish cages installed by Israeli corporations Ardag and Ar-Suf in the Gulf of Aqaba were to be removed.

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Remembering the Red Sea Marine Peace Park


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