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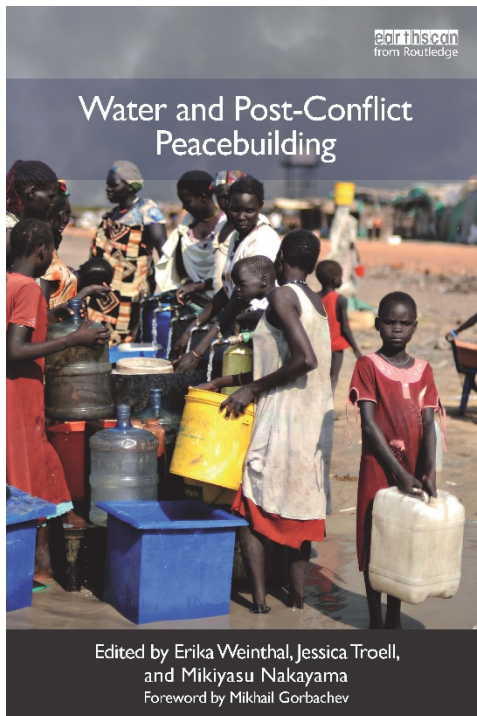
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### Management of waters in post-Dayton Bosnia and Herzegovina: Policy, legal and institutional aspects

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# Management of waters in post-Dayton Bosnia and Herzegovina: Policy, legal, and institutional aspects

*Slavko Bogdanovic*

As Bosnia and Herzegovina (BiH) recovers from the devastating civil conflict of the early 1990s, the country is continuing to establish itself as a member of the international community. The collapse, in 1991, of the Socialist Federal Republic of Yugoslavia (SFRY) triggered disputes over territory and sovereignty—ultimately leading to a civil war that split BiH along ethnic lines. The region's infrastructure and economy were devastated as various ethnic groups fought to control portions of the former SFRY. The war in BiH came to a close in December 1995, with the signing of the Dayton Peace Agreement,<sup>1</sup> which divided the country into two individual political units, the Federation of Bosnia and Herzegovina (Federation of BiH) and the Republic of Srpska,<sup>2</sup> and a third small district—the Brčko District, an independently governed, multiethnic territory that links the two units and technically belongs to both. The agreement also included the constitution of BiH, which explicitly assigned exclusive rights and responsibilities (referred to as “competencies”) to the state and to its political units.<sup>3</sup>

Respecting the extensive autonomy of each political unit was paramount, but the boundaries between the units were drawn without any consideration for the hydrological configuration of BiH. Thus, with respect to water management, governing authority was divided between the newly formed Federation of BiH and Republic of Srpska.

The results of the war—destruction of infrastructure, changes in society, and the establishment of a new government—required the state to reform its water management institutions and legal frameworks to meet the needs of the entities.

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<sup>1</sup> Republic of Bosnia and Herzegovina, Republic of Croatia, and Federal Republic of Yugoslavia, General Framework Agreement for Peace in Bosnia and Herzegovina, Paris, December 14, 1995 (referred to in this chapter as the Dayton Peace Agreement).

<sup>2</sup> These two units of government are collectively referred to as “the entities.”

<sup>3</sup> In this chapter, *state* refers to the BiH government. The state represents national interests on the international stage, coordinates the activities of the entities, and ensures adherence to the rule of law throughout the territory.

## 362 Water and post-conflict peacebuilding

As the state and its political units continue to rebuild, they have collaborated on some aspects of water management, but real progress has been limited.

Many of the challenges facing BiH are similar to those faced by other countries transitioning from one-party rule and a socialist economy to democracy and a free-market economy; BiH faces the additional challenge of preserving the rights of its ethnic groups. Water sector reforms, however, are critical to all citizens of BiH and provide a potential platform for cooperation—and, ultimately, for achieving common goals as a unified nation.

As it continues to establish itself as a sovereign nation, BiH has been subject to both internal and external pressures. In addition to having entered into several treaties, the country is working to achieve membership in the European Union (EU), which mandates legislative and structural reforms to achieve compliance with the requirements of the *acquis communautaire*.<sup>4</sup> To meet these requirements, the political units of BiH must cooperate with each other and with the state government. However, the redundancies and gaps in water management authority created by the constitutional division of powers between the state and its political units have created barriers to achieving the EU legislative requirements. In sum, because the peace agreement and constitution that brought the war to an end lack the mandatory mechanisms for coordination and cooperation that are necessary for water sector reform, they are obstructing post-conflict peacebuilding.

This chapter considers the unique political organization of post-conflict BiH and its effect on water management. It is divided into five sections: (1) a brief background discussion; (2) a consideration of the constitutional and legal frameworks for water resource management in BiH; (3) a description of water management strategies for BiH; (4) a consideration of the impact of the Dayton Peace Agreement on water management in BiH; and (5) a brief conclusion.

### BACKGROUND

BiH is a Western Balkan country that consists of three units of government: (1) the Federation of BiH and (2) the Republic of Srpska, which are collectively referred to as “the entities”; and (3) the Brčko District of BiH. As noted earlier, the Brčko District is formally a condominium of both entities; but in practical terms, it is an administratively independent region under BiH sovereignty. The principal ethnic groups in BiH are Bosniaks (referred to by the former, socialist regime as Muslims), Croats, and Serbs. The Federation of BiH is primarily made up of Bosniaks and Croats, and the Republic of Srpska is made up primarily of Serbs.

BiH has a total area of 51,212 square kilometers and a twenty-kilometer coastline along the Adriatic Sea (FMAWMF, SRBDA, and ASRBD 2012; Redžić

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<sup>4</sup> The *acquis communautaire* is a constantly evolving body of common rights and obligations that bind all EU member states; it includes but is not limited to treaties, legislation, decisions of the European Court of Justice, and policy measures. For more information, see EU (2012).



2007). Both entities share the waters of the Black Sea and Adriatic watersheds, which drain into either the Adriatic Sea or the Black Sea via the Sava River, a tributary of the Danube (DW 2006).<sup>5</sup> (See table 1.)

**Table 1. Waters of Bosnia and Herzegovina that belong to the watersheds of the Black Sea and the Adriatic Sea**

<i>Territory</i>	<i>Land area</i>		<i>Black Sea watershed</i>		<i>Adriatic Sea watershed</i>	
	<i>Total area (km<sup>2</sup>)</i>	<i>Percentage of country</i>	<i>Total area (km<sup>2</sup>)</i>	<i>Percentage of territory within the watershed</i>	<i>Total area (km<sup>2</sup>)</i>	<i>Percentage of territory within the watershed</i>
Bosnia and Herzegovina (BiH)	51,212.00	100.00	37,849.00	73.91	13,363.00	26.09
Federation of BiH	26,086.00	50.94	17,304.00	66.33	8,782.00	33.67
Republic of Srpska	24,640.00	48.11	20,059.00	81.41	4,581.00	18.59
Brčko District	486.00	0.95	486.00	100.00	0.00	0.00

Source: Sarajevo Vodoprivreda (n.d.).

<sup>5</sup> For data and further information, see the Sarajevo Vodoprivreda web site: [www.vodoprivreda.ba/ozavodu.php](http://www.vodoprivreda.ba/ozavodu.php).

## 364 Water and post-conflict peacebuilding

The pre-war Socialist Republic of BiH, a federal unit of the SFRY, supplied raw materials, energy, and heavy-industry products throughout the SFRY, and the water resources of what is now BiH were exposed to intense pollution. Because water resources are unequally distributed throughout the country, the Socialist Republic of BiH constructed an extensive and complex infrastructure system to ration water use, safeguard against floods, and protect water quality (OSCE 2007).

The collapse of the SFRY in the early 1990s and the subsequent war left the Socialist Republic of BiH in ruins, both physically and economically, and had widespread effects on the water sector. Not only was much of the physical water infrastructure destroyed, but the war also prevented adequate maintenance of the remaining works. Municipal water supply facilities also suffered significant damage and deterioration, which led to major disruptions of operation and maintenance.<sup>6</sup> Perhaps most important, once the conflict had ended, the pre-war regulatory framework governing water was no longer adequate or appropriate, making it impossible to effectively manage water resources in the post-conflict era (CD&M and HEIS 1999).

Rehabilitation of the water and wastewater sectors in the newly independent BiH was a high priority for post-war reconstruction. In 1996, to support such efforts, international donors established the Emergency Water Construction Program, which was coordinated by the International Management Group, an ad hoc technical support entity created in 1994 at the behest of the United Nations High Commission for Refugees. The program had three goals: to initiate and support a wide variety of capital improvement and rehabilitation projects throughout the country; to assist with the fundamental reform of water management at both the local and national levels; and to strengthen the functioning and management of water and wastewater utilities in BiH's ten municipalities. Funded by the EU, the government of Finland, and the U.S. Agency for International Development (CD&M and HEIS 1999), the program provided vital support, throughout the country, for the recovery of basic municipal water infrastructure.<sup>7</sup>

### **CONSTITUTIONAL AND LEGAL FRAMEWORKS FOR THE MANAGEMENT OF BIH WATERS**

This section of the chapter describes the constitutional and legal frameworks for the management of BiH waters: the Dayton Peace Agreement, BiH competencies with respect to the environment and natural resources, the relevant laws of

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<sup>6</sup> In some cases, however, the war actually improved water quality—for example, by destroying many of the industrial plants that had previously been sources of pollution (Stoett 2005).

<sup>7</sup> See, for example, USAID and BiH (2012).

the political units, the pertinent requirements of the EU, and other applicable international and regional agreements related to water resource management.

### **The Dayton Peace Agreement**

The Dayton Peace Agreement brought the four-year armed conflict in BiH to an end. Negotiated through an extensive process supported by the international community, the agreement preserved the BiH state borders (which were wholly within the SFRY); established the boundaries between the two entities (51 percent of the total land area was included in the Federation of BiH, and 49 percent in the Republic of Srpska);<sup>8</sup> and left the status of the Brčko District to be determined at a later date by the Arbitral Tribunal.<sup>9</sup>

The Dayton Peace Agreement includes eleven annexes and two appendices. Annex 4 is the constitution of BiH, which establishes the rights and responsibilities (referred to as “competencies”) of the state and the entities. Generally speaking, the state represents national interests on the international stage, coordinates the activities of the entities (in accordance with the constitution), and ensures adherence to the rule of law throughout the territory. According to article 3, sections 1–3 of the constitution, the entities retain all competencies that are not expressly assigned to state institutions. Article 3, section 5 of the constitution provides that the entities can agree to state appropriation of additional competencies for the following purposes: the use of energy sources; the implementation of joint economic projects; and the protection of the sovereignty, territorial integrity, and political independence of the state.

Although ethnic divisions formed the basis for the organization of the state and resulted in the establishment of the two entities, the constitution also established principles, objectives, and modalities for creating unity among the previously warring ethnic groups. Specifically, the preamble declares that all ethnic groups are constitutional “peoples” that should work alongside each other to build a shared community. The actions of the entities are to be guided by

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<sup>8</sup> Dayton Peace Agreement, annex 2 (Agreement on Inter-Boundary Line and Related Issues). The negotiation process that led to the Dayton Peace Agreement was overseen by an arbitral tribunal that handed down a series of interim and supplemental awards that established boundaries before the issuance of the Brčko Final Award of 5 March 1999 (Schreuer 1999).

<sup>9</sup> In 1997, the Arbitral Tribunal established the Brčko Supervisor, a body of the UN Office of the High Representative, to oversee the implementation of the Dayton Peace Agreement in the Brčko District and to promulgate binding regulations and orders. Two years later, as provided for in the Dayton Peace Agreement, the tribunal finalized the Brčko District boundary line. Once the boundary had been established, what had once been the Municipality of Brčko came under the exclusive sovereignty of BiH, although it remained a condominium of both entities (Schreuer 1999). After the final award, the Brčko Supervisor was charged with furthering the development of governmental institutions in the Brčko District.

## 366 Water and post-conflict peacebuilding

principles of equality and reciprocity; at the same time, each group's distinct ethnic culture is to be respected (Sahovic 1996).

The emphasis on ethnicity is reflected in the relationship between the state and the entities. For example, under article 4, section 2, of the constitution, the Federation of BiH has two-thirds and the Republic of Srpska one-third of the total number of votes in the BiH Parliamentary Assembly. Article 4, section 3, also includes provisions intended to prevent a majority group from obstructing or dominating minority groups.

### **BiH competencies with respect to the environment and natural resources**

The Dayton Peace Agreement, including the constitution, profoundly limits the ability of BiH to regulate the waters within its borders. Unlike some other peace treaties (such as the treaties of Versailles and Trianon, signed in 1919 and 1920, respectively), the Dayton Peace Agreement lacks any provisions that specifically apply to water resources or their management, except those regarding the inter-entity boundary line.<sup>10</sup> This scheme is substantially different from the system that was in place at the time of the Socialist Republic of BiH, when a single government office controlled water legislation, and issues related to waters that crossed or marked boundaries between socialist republics were within the competency of the federal state (SFRY), and were accordingly regulated by federal law (YLI 1979; Sparavalo 1982). In the absence of a constitutional mandate, the BiH Parliamentary Assembly has no power to regulate relations between the entities with respect to water. Furthermore, because there is no reliable institutional or procedural system for the coordination of the territorially divided water management systems, BiH has no legal means for resolving disputes over shared water (FMAWMF, SRBDA, and ASRBD 2012).

The state of BiH has constitutional competency over foreign policy and foreign relations, but the entities also have a constitutional right to establish special relationships with neighboring countries or international organizations, provided that such relationships do not interfere with the sovereignty and territorial integrity of BiH. However, under article 3, section 2, of the constitution, such agreements with foreign states or international organizations must be approved by the BiH Parliamentary Assembly.

In the realm of environmental protection and natural resources, the BiH Ministry of Foreign Trade and Economic Relations is responsible for setting policies and for ensuring the coordination and harmonization of the activities of the entities' authorities and institutions at the international level. Thus, the authority to negotiate and enter into international water agreements rests with the state of BiH, but the authority to implement those agreements lies solely with the entities and the Brčko District (FMAWMF, SRBDA, and ASRBD 2012).

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<sup>10</sup> Articles 3.1 and 3.2 of annex 2 relate to the impact of both natural and artificial changes on rivers and streams at the interentity boundary line.

## Legal frameworks of the political units

Pursuant to the constitution, the entities and Brčko District have established their own laws on water management. The Federation of BiH and the Republic of Srpska adopted their first water laws in 1998.<sup>11</sup> The laws, which were designed to reflect social changes and to ensure consonance with the new constitution, replaced outdated executive instruments. Yet both laws failed to explicitly eliminate all of the socialist-era legal provisions pertaining to water, leaving a convoluted regulatory system and institutional framework (FMAWMF, SRBDA, and ASRBD 2012; IMF 2004).<sup>12</sup> Given this “extremely complicated and ill-defined division of competencies . . .” (IMF 2004, 200),<sup>13</sup> it is unsurprising that the internationally supported project Institutional Strengthening of the Water Sector in BiH found that the 1998 water laws and implementing regulations were insufficiently reflective of the realities of the new BiH (Bogdanovic 2000, 2001).<sup>14</sup>

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<sup>11</sup> Water Law of the Federation of Bosnia and Herzegovina (Federation of BiH) (*Official Gazette F BiH* No.18/98), 1998; Water Law of the Republic of Srpska (*Official Gazette RS* No. 10/98), 1998.

<sup>12</sup> The transition from the socialist-era system to an institutional framework consistent with EU policies and requirements “is a process that must be implemented progressively, over a longer period of time, simultaneously with the changes taking place in other segments of society, because this is an exceptionally complex management system . . .” (FMAWMF, SRBDA, and ASRBDF 2012, 88–89). The regulatory system has been further complicated by the entities’ failure, during the transitional period between the adoption of new laws and their entry into force, to set aside a time during which all former bylaws had to be replaced by new legislation designed to implement the new laws (FMAWMF, SRBDA, and ASRBD 2012).

<sup>13</sup> Under the 1998 Federation of BiH water law, the entities that were responsible for water management included the Federation of BiH Ministry of Agriculture, Water Management and Forestry; multiple *vodopriveda* organizations (*vodopriveda* are departments of the Ministry of Agriculture, Water Management and Forestry); cantonal ministries of agriculture, water management, and forestry; and municipal water management authorities. Municipal and town councils were responsible for water supply, sewage, and wastewater treatment (IMF 2004). Under the 1998 Republic of Srpska water law, water management was the responsibility of the Ministry of Agriculture, Forestry and Water Management, while municipalities were in charge of water supply and sewage, and the Ministry of Regional Planning, Construction and the Environment oversaw public utility administration (IMF 2004).

<sup>14</sup> The Institutional Strengthening of the Water Sector project in BiH was initiated in 1998, in response to the perceived need for the development of legal and institutional frameworks to support a sustainable water sector (IMF 2004). After the first phase yielded little progress, the IMF recommended a number of reforms for the second phase, including water management on the river-basin level, funding and regulatory mechanisms, and the establishment of state-level mechanisms to allow BiH to meet its international obligations and participate in cooperative water management strategies with other countries (IMF 2004). The next wave of water legislation, finalized in 2006, came about in large part through the project, which was supported by the EU CARDS (Community Assistance for Reconstruction, Development and Stabilisation) initiative in the Western Balkans (Fejzibegović 2008). For more information on the EU CARDS initiative, see Bruch, Wolfarth, and Michalcik (2012).



## 368 Water and post-conflict peacebuilding

In 2005, the Brčko Supervisor abolished the Federation of BiH and Republic of Srpska water laws that had previously been in force in the Brčko District and adopted the 1998 Water Law of the Republic of Srpska as the official water law of the Brčko District (PM Group 2011).<sup>15</sup> In 2006, in response to existing institutional inadequacies and the further complications that had arisen when both entities passed additional water protection laws in 2002 (Republic of Srpska) and 2003 (Federation of BiH), the entities adopted new water laws that superseded all previous water laws and any other conflicting legislation (IMF 2004); these legal instruments now provide the framework under which the water regulatory systems are being modernized.<sup>16</sup> In addition to the new water laws, other norms and legal instruments directly affect the management of water resources—in particular, legislation pertaining to environmental protection, spatial planning, forestry, agricultural land, and public revenues.

The Federation of BiH must also coordinate its regulatory framework with those of its ten political subunits (cantons),<sup>17</sup> which have the authority to manage water within their borders.<sup>18</sup> Under article 3, section 3, of the Federation of BiH constitution, when exercising the water management competency of the Federation of BiH, the Ministry of Agriculture, Water Management and Forestry must demonstrate flexibility—by, for example, taking into account cantonal competencies and the different conditions among the cantons.<sup>19</sup> The 2006 Federation of BiH water law required the cantons to coordinate their regulatory structure with that of Federation of BiH,<sup>20</sup> but the law failed to provide either procedures to achieve such coordination or methods of verifying and reporting on how coordination was being achieved.

The Brčko District and entity water laws (adopted in 2005 and 2006, respectively) also distributed water management authority among several different institutions. In the Brčko District, the utilities department is the main authority for all natural resources, including water (Skejović-Hurić 2009). In both the Federation of BiH and the Republic of Srpska, the respective ministries of agriculture, water management, and forestry have general responsibility for water

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<sup>15</sup> In 2006, when interentity boundaries within the Brčko District ceased to be legally significant, all entity laws stopped having any legal effect in the district (OHR Brčko Supervisor 2006), so the district elected to adopt the Water Law of the Republic of Srpska as its own.

<sup>16</sup> Water Law of the Federation of BiH (*Official Gazette of F BiH* No. 70/06), 2006; Water Law of the Republic of Srpska (*Official Gazette of RS* No. 50/06), 2006.

<sup>17</sup> Known in Bosnian as *kantoni* and in Croatian as *zupanije*.

<sup>18</sup> See, for example, article 3, section 2, of the Federation of BiH constitution; see also article 19 of the constitution of Canton Središnja Bosna. In both constitutions, waters (among other things) are included under the heading of environment.

<sup>19</sup> The Federation of BiH water law divides the federation's surface waters (such as watercourses, reservoirs, lakes, or wetlands) into two categories. The vodoprivredas have jurisdiction over Category 1 waters, and towns and municipalities are granted jurisdiction over Category 2 waters. See Water Law of the Federation of BiH (arts. 5–9).

<sup>20</sup> See Water Law of the Federation of BiH (art. 222).

management. In addition, each entity has two distinct water management agencies, each of which serves either the Adriatic or the Black Sea river basin in the respective entity.

In other words, four separate agencies (two in the Federation of BiH and two in the Republic of Srpska) and one Brčko District department are responsible for water management in BiH. But under the Dayton Peace Agreement, the state of BiH has no means of coordinating the work of the five authorities or harmonizing the management of national water resources. Had such coordination and harmonization been possible, the state of BiH might have implemented a system in line with the model that professionals and scientists in the field accept as necessary for effective and efficient water management. This model is described in the Federation of BiH water management strategy as one that (1) conforms with the principle of managing on the river-basin level and (2) allows for the development of cooperative management systems across administrative and interstate borders (FMAWMF, SRBDA, and ASRBD 2012).<sup>21</sup>

### **European Union requirements**

EU legislation includes a number of goals for the management of waters that are within and shared among its member states, many of which are designed to preserve the environmental integrity of aquatic ecosystems. The EU Water Framework Directive (WFD), the legal framework that underpins EU water policy, covers the management of fresh surface and groundwater, transitional (estuary) waters, and coastal waters (European Parliament and the Council of the European Union 2000). The goals of the WFD are defined in general terms—but, taken collectively, they reflect a complex set of intentions:

- Prevention of further damage.
- Protection and improvement of aquatic ecosystems and the terrestrial ecosystems and wetlands that depend on them.
- Increasing the sustainability of water use through long-term protection of water resources.
- Strengthening the protection and improvement of the aquatic environment by gradually decreasing groundwater pollution (for example, decreasing or eliminating the emission of certain harmful substances).
- Mitigating the effects of floods and droughts.<sup>22</sup>

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<sup>21</sup> The EU Water Framework Directive refers to the principle of managing on the river-basin level as the “correct geographical scale” principle and mandates institutional cooperation between member states (European Parliament and the Council of the European Union 2000).

<sup>22</sup> See also Commission of the European Communities (2007a, 2007b).

## 370 Water and post-conflict peacebuilding

For BiH to obtain EU membership status, its national water legislation must incorporate the WFD and include an implementation and enforcement plan. In addition, BiH legislation must incorporate the aims and time frames of a number of other EU legal instruments that are directly connected (or unavoidably related) to water management (EC 1998); moreover, these aims and time frames must be included in the legislation of the Federation of BiH, the Republic of Srpska, and the Brčko District. In practical terms, the implementation of the *acquis communautaire* in each political unit will mean that all of BiH will share a single water policy.

Under the Stabilization and Association Agreement (SAA) concluded in 2008 between the European Communities, the European Communities' member states, and BiH, BiH will gradually become more closely associated with the EU, over a transitional period of no more than six years.<sup>23</sup> The progress of this association will be checked annually by the Stabilization and Association Council (European Parliament and the Council of the European Union 2008),<sup>24</sup> and a thorough review of the ongoing application of the SAA will be conducted before the end of the third year after the SAA enters into force (FMAWMF, SRBDA, and ASRBD 2012). As part of this process, BiH is required to focus on clearly established short- (two to four years) and medium-term (four to six years) priorities for the adoption and implementation of new legislation, including water regulations that are consistent with the WFD (FMAWMF, SRBDA, and ASRBD 2012; European Parliament and the Council of the European Union 2008).<sup>25</sup> Among the priorities that apply to water management are (1) strengthening administrative capacities and procedures for ensuring strategic planning and coordination between relevant actors, (2) focusing on the alignment of BiH legislation with the *acquis communautaire*, and (3) developing strategies to significantly reduce water pollution (FMAWMF, SRBDA, and ASRBD 2012).

### International and regional frameworks for water resource management

Apart from the requirements of the EU, BiH is involved in other multilateral efforts focused on the management of (1) fresh surface and underground waters and (2) coastal marine areas in BiH's two international watersheds. A number of international legal frameworks—including the United Nations Economic Commission for Europe (UNECE) Water Convention, the Danube River Protection

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<sup>23</sup> Stabilization and Association Agreement between the European Communities and Their Member States, of the One Part, and Bosnia and Herzegovina, of the Other Part, Luxembourg, June 16, 2008.

<sup>24</sup> The Stabilization and Association Council is composed of members of the Council of the European Union, members of the European Commission, and members of the BiH Council of Ministers.

<sup>25</sup> The priorities establish broad goals (for example, "adopting a State environmental law to create the framework for nationwide harmonised environmental protection"), and BiH is required to both adopt and implement legislation in furtherance of these goals (FMAWMF, SRBDA, and ASRBD 2012, 9).

Convention (DRPC), the Framework Agreement on the Sava River Basin (FASRB), and the Protocol on Navigation Regime to the FASRB—were established to facilitate and support sustainable water management at the basin level through the preservation and improvement of freshwater resources, and their rational and equitable use.<sup>26</sup> In addition, permanent international river-basin commissions—primarily the International Commission for the Protection of the Danube River (located in Vienna, Austria) and the International Sava River Basin Commission (located in Zagreb, Croatia)—have been developing multilateral cooperation in the Danube River basin (FMAWMF, SRBDA, and ASRBD 2012).

The state of BiH has clear duties to fulfill in the international arena, including those articulated in the UNECE Water Convention, the DRPC, the FASRB, and the Protocol on Navigation Regime to the FASRB, as well as duties connected to BiH commitments in the Mediterranean, including the Convention for the Protection of the Mediterranean Sea against Pollution (known as the Barcelona Convention) (FMAWMF, SRBDA, and ASRBD 2012).<sup>27</sup> As a party to these agreements and as a participant in the two principal river-basin commissions in the region, the BiH is being pushed to identify integrated and cooperative solutions for its water management issues at the state level, despite the fact that the Dayton Peace Agreement created three distinct water management systems. In the future, BiH's international duties will continue to broaden, partly because BiH is expected to become a party to new international treaties, and partly because integration into the EU will expand BiH's obligations.<sup>28</sup>

## **WATER MANAGEMENT STRATEGIES IN BIH**

The dissolution of the SFRY and the subsequent war changed BiH society and the structure of the state in such a way as to necessitate wholesale reform of water management, including water legislation and the public institutions responsible for water resource management and service provision. The current water laws of both entities provide for the adoption of water management strategies that will (1) describe or assess the current state of the water management sector; (2) set goals and determine the time frames and priorities for their achievement;

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<sup>26</sup> Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Helsinki, Finland, 1992); Convention on Cooperation for the Protection and Sustainable Use of the Danube River (Sofia, Bulgaria, 1994); Framework Agreement on the Sava River Basin (Kranjska Gora, Slovenia, 2002); Protocol on the Navigation Regime to the FASRB (Kranjska Gora, Slovenia, 2002). For more information on post-conflict management of the Sava River Basin, see Amar Čolakhodžić, Marija Filipović, Jana Kovandžić, and Stephen Stec, "The Sava River: Transitioning to Peace in the Former Yugoslavia," in this book.

<sup>27</sup> Convention for the Protection of the Mediterranean Sea against Pollution (Barcelona, Spain, February 16, 1976).

<sup>28</sup> When the EU becomes a party to an international treaty, it automatically incorporates the treaty into the *acquis communautaire*; member states are then obligated to integrate the terms of the treaty into their national legal systems.

## 372 Water and post-conflict peacebuilding

(3) develop the necessary programs and projects to meet the goals; and (4) determine the level of resources that will be required for such efforts.<sup>29</sup> In addition to the SAA itself, the program for implementing the SAA and the deadlines that will be determined through negotiations between BiH and the European Commission will have a decisive influence on how the water management strategies of the Federation of BiH and the Republic of Srpska are implemented.

There are also ongoing efforts to adopt the comprehensive, overarching BiH water strategy that was drafted in late 2011 as a result of the Support to BiH Water Policy program, an EU-funded project (EuropeAid 2008; PM Group n.d.). According to the procedure set out by the BiH Ministry of Foreign Trade and Economic Relations (the project beneficiary), the comprehensive strategy should have been adopted by the BiH Council of Ministers (MOFTER 2010); at the time of writing, however, this had yet to occur.

### The Federation of BiH

In addition to providing for the adoption of the Federation of BiH water management strategy, the 2006 Federation of BiH water law assigns competencies for implementing the strategy and describes procedures for drafting and adopting future iterations of the strategy. The current strategy, which was published in its final form in 2012 and is designed to be valid from 2010 to 2020, addresses two principal goals: (1) policy, legal, and institutional reform of water management to respond to social change; and (2) harmonization of national water management legislation with the water-related provisions of the *acquis communautaire*, a task that is both a part of the stabilization process and a requirement for eventual membership in the EU.

In accordance with the SAA, the time limits set in the Federation of BiH strategy for the adoption of the more than forty regulatory instruments that are required to bring the Federation of BiH into compliance with the *acquis communautaire* are more flexible than those in the 2006 water law. The strategy also articulates a clear commitment, on the part of the Federation of BiH, to be flexible in future negotiations with the European Commission, to prevent the strategy from obstructing further development or the adoption of legal and institutional reforms (FMAWMF, SRBDA, and ASRBD 2012).

Finally, the water management strategy must be in accord with the larger environmental protection strategy of the Federation of BiH. With respect to environmental protection and water management, the two strategies are meant to function as a coherent whole (FMAWMF, SRBDA, and ASRBD 2012).

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<sup>29</sup> For example, article 24 of the Federation of BiH water law states that the federal water management strategy shall include “assessment of the current situation in water management,” “goals and objectives relating to water . . .,” “priorities for achievement of water management goals,” and “estimated resources needed to implement the program and deadlines for achieving goals.” (An English translation of the Federation of BiH water law is available at [www.fmpvs.gov.ba/texts/276\\_287\\_e.pdf](http://www.fmpvs.gov.ba/texts/276_287_e.pdf).)

From a broader perspective, the Federation of BiH water management strategy can be viewed as a powerful policy instrument that is fully in line with the Dayton Peace Agreement and strongly supports both local and national peace-building efforts in BiH. By focusing on reforming the water sector to match new realities and achieve integration into the EU, the strategy is intended to overcome the consequences of war—and, through national development and cooperative international mechanisms supporting sustainable resource management, to contribute to peacebuilding.<sup>30</sup>

## **Republic of Srpska**

Under the 2006 water law of the Republic of Srpska, a strategy for integrated water resource management of the Republic of Srpska is designed to be a comprehensive sectoral policy; it contains the following elements (DW 2006):

- Specific measures to control surface water pollution.<sup>31</sup>
- Specific measures to prevent and control the pollution of groundwater, with the aim of achieving “good” status (as defined under the EU WFD).
- General descriptions of the condition of various aspects of the water management system.
- General goals and directions for the use and protection of waters, and for protection against harmful effects from waters.

Two documents, in addition to the water law, address water management in the Republic of Srpska: the Framework Plan for the Development of the Water Management of the Republic of Srpska, which was developed in 2006 by the

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<sup>30</sup> For example, the strategy discusses funding that will be necessary “to bring the water supply system back to the pre-war level” (FMAWMF, SRBDA, and ASRBD 2012, 115n65). The strategy highlights the importance of supplying water to the population to ensure that a basic standard of living is achieved, and that the “intensive post-war activities on reconstruction and expansion of water supply systems” that are required to achieve such standards have been undertaken (F BiH 2012, 126). Thus, the strategy builds on the efforts undertaken by the international community immediately after the war, which assigned priority to rehabilitating the water sector (USAID and BiH 1999). In addition, the strategy addresses the need to remedy war-related damage to infrastructure associated with irrigation, and flood control (F BiH 2012). The strategy also emphasizes that “[n]either economic nor social development may be enabled without a secure access to water resources and it is evident that the accomplishment of the majority of [the UN Millennium Development Goals] depends on the way water is managed” (F BiH 2012, 177). The eight Millennium Development Goals, set out in the Millennium Declaration in September 2000, include ensuring environmental sustainability, developing a global partnership for development, combating disease, and eradicating poverty and hunger (F BiH 2012).

<sup>31</sup> The government of the Republic of Srpska determines the level of risk associated with various pollutants.

## 374 Water and post-conflict peacebuilding

Directorate for Water of the Ministry for Agriculture, Forestry and Water Management, and the Action Plan for the Implementation of the Framework Plan for the Development of the Water Economy of the Republic of Srpska, which was drafted in 2007 by the same ministry. The framework plan states that it was intended to serve as the first phase in the development of a strategy for integrated water resource management of the Republic of Srpska (Bratić et al. 2006; DW 2006). The action plan, which is valid from 2007 to 2016, acknowledges the need for regional cooperation between BiH and river-basin states that are parties to the DRPC and FASRB. The action plan also states that its goal is to align water management in the Republic of Srpska with the requirements of the EU WFD (MAFWM 2007). Neither the framework plan nor the action plan, however, is regulated by the Water Law of the Republic of Srpska; moreover, the water law requires the adoption of a strategy for integrated water resource management, but the relationship between that strategy, the framework plan, and action plan remains unclear.

### IMPACT OF THE DAYTON PEACE AGREEMENT

In BiH in 2002, the author conducted a comparative analysis that assessed the regulation of water resources shared by federal or regional units in complex constitutional states. The goal of the analysis was to formulate a possible proposal for “an adequate legal framework for inter-Entity co-operation based on the present constitutional solutions” (Royal Haskoning 2001, 6). In the author’s view, the development of such a framework is essential to the success of water resource management in BiH. The study investigated constitutional and legal aspects of shared water resources in Australia, India, Mexico, the SFRY, and the United States (Bogdanovic 2002).<sup>32</sup>

The analysis revealed certain gaps in the BiH legal system—in particular, (1) a lack of legal provisions regarding waters shared among the entities and (2) a lack of effective interentity dispute resolution mechanisms. These regulatory

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<sup>32</sup> The most well-known Australian agreement concerned the Murray and Darling rivers and was made in 1915, between four members of the Federation of Australia. In 1956, India adopted the federal Inter-State River Disputes Act, which was unique in that it attempted to provide a federal mechanism for the resolution of interstate water disputes. More recently, during the 1980s and 1990s, the federal government of Mexico—on the basis of legal grounds established by the federal water laws of 1972 and 1992—began the practice of signing agreements with individual Mexican states. The SFRY had strong constitutional and legal grounds for regulating relations between its federal republics, with respect to waters that formed or crossed the borders between republics. All three legal options in use in the United States (litigation before the Supreme Court, national legislation designed to resolve conflicts or address confusion, and interstate compacts and agreements) were investigated. Although European law—specifically, the constitutional and legal systems of Austria, Germany, the Netherlands, Spain, and Switzerland—was noted as being of potentially great significance for the analysis, it was not investigated (Bogdanovic 2002).

and administrative gaps were created by the Dayton Peace Agreement, which failed to provide any clear avenue for cooperation between the entities, or between the entities and the state (Bogdanovic 2002).

### **The search for viable cooperative grounds: Memorandums of understanding**

Memorandums of understanding (MOUs) are formal, nonbinding agreements that express an agreed-upon intent but do not impose any consequences for failure to comply. Since the late 1990s, the entities have used MOUs, which are signed by their executive authorities, to regulate interentity relations and address gaps in the legal and constitutional systems. In other words, MOUs have made it possible to regulate cooperation within the existing constitutional framework (Bogdanovic 2000).

In the water sector, MOUs have been signed between entity governments, between entity ministers responsible for water management, and between entity governments and the European Commission. However, because MOUs signed by executive authorities have not been confirmed by any parliament—whether entity, Brčko District, or state—they were not binding legal instruments (FMAWMF, SRBDA, and ASRBD 2012). By their legal nature, MOUs cannot contradict constitutional provisions; thus, they could be instrumental in achieving wider and more complex regulation of interentity relations and relations between the state of BiH and the entities and Brčko District—but only if the state and its constitutional units adopt legislation to create a satisfactory legal framework for such agreements (Bogdanovic 2002).

On June 4, 1998, recognizing the need to (1) facilitate interentity cooperation regarding water management and (2) inform BiH institutions of international cooperation regarding transboundary waters, the Federation of BiH and the Republic of Srpska signed an MOU that established the Inter-Entity Commission for Coordination of Issues in the Field of Water Economy (Inter-Entity Commission) and defined the commission's scope and duties. The commission's scope encompasses many areas, including international watercourses; projects and treaties associated with water management; harmonization of water quality, legislation, and data exchange; and the construction and harmonized regulation of interentity hydraulic structures. Among the commission's general duties is ensuring that the interests of both entities are taken into account in the course of water use planning, particularly where such interests may be in opposition. The commission has the power to adopt decisions by consensus; where consensus cannot be achieved, the MOU provides for an alternative mechanism to resolve the dispute (FMAWMF, SRBDA, and ASRBD 2012).

An MOU signed in late 2000—by the Federation of BiH and the Republic of Srpska on one side, and by the European Commission on the other—expressed the desire of all parties for continued institutional reforms in the BiH water sector. Specifically, the agreement is intended to support the adoption of sound and



## 376 Water and post-conflict peacebuilding

transparent legislation addressing river-basin management in accordance with the *acquis communautaire* and multilateral treaties. This MOU helped obtain international donor support for a multiyear project that strengthened the institutional components of the BiH water sector and eventually led to the adoption of the 2006 water laws (Bogdanovic 2002; FMAWMF, SRBDA, and ASRBD 2012).

In 2001, the Federation of BiH and Republic of Srpska ministries of agriculture, forestry, and water management signed an MOU that committed them to cooperating in a number of areas, including water management. The MOU was intended to (1) strengthen cooperation between the two ministries and the European Commission and (2) foster comprehensive implementation of the 1998 MOU on water management. Ultimately, this MOU was concluded to provide broader support for the Inter-Entity Commission. The ministries agreed to harmonize and intensify the enforcement of water quality legislation—in particular, provisions regarding pollution and flood mitigation; they also committed to jointly develop a legal instrument to guide authorization and permitting of the construction of infrastructure on shared watercourses or in aquatic areas between the two entities. Finally, the MOU required the entities to establish an agreed-upon time frame to implement their obligations (FMAWMF, SRBDA, and ASRBD 2012).<sup>33</sup>

Though extensive, MOUs have not yielded the necessary changes in BiH and its political units. MOUs are generally policy instruments—or, at best, instruments of soft law—that express the intention to move forward in defined ways. Unlike contracts, legislation, or interstate compacts, such as those used in the United States, MOUs are not binding legal instruments. As a result, there are no consequences of the sort that would arise from breaching contractual duties or legal obligations. Given the nature of MOUs, it is not surprising that they have failed to achieve some of the goals that are either resource intensive or politically sensitive, such as harmonized legislation.

But the legal weakness of the MOUs is only part of the problem. Generally speaking, the entities lack the political will that is needed to meet the obligations specified in the MOUs. For example, the Inter-Entity Commission has failed, for several years, even to hold meetings—and has therefore been unable to achieve the goals articulated in the MOU that created it (FMAWMF, SRBDA, and ASRBD 2012).

The entities' 2006 water laws codified their political will to cooperate: both laws include weak commitments to harmonize water management strategies and river-basin management plans during the drafting and adoption phases (under the water laws, both harmonization and the drafting and adoption phases must occur within established time frames).<sup>34</sup> The effectiveness of such provisions

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<sup>33</sup> There is no publicly available information regarding whether attempts have been made to implement the MOU (Bogdanovic 2002); and, as of mid-2012, no time frame had been established (F BiH 2012).

<sup>34</sup> See Water Law of the Federation of BiH, article 24, which sets 2009 as the deadline for the adoption of a water management strategy; and Water Law of the Republic of Srpska, article 31, which sets 2015 as the deadline for the adoption of a water management strategy.

will become clear in the future, as the deadlines approach for the adoption of water management strategies and river basin management plans.<sup>35</sup>

Although the intent of the MOUs was to move the region forward—in particular, to strengthen cooperation and coordination in the realm of water resource management—progress has so far been illusory (for example, the creation of the Inter-Entity Commission) or incomplete. Ultimately, the inherent weakness of the MOUs is postponing peacebuilding and preventing stabilization in the region.

### **Strengthening the authority of the state of BiH**

Since the late 1990s, ongoing attempts to create a consolidated, functional state that can meet EU membership requirements have been designed to build the political will to implement the necessary changes in the BiH constitution, but consensus is not yet in sight. Some observers have argued that such initiatives will lead to a breach of the Dayton Peace Agreement.<sup>36</sup> In the meantime, the state faces growing pressure from the EU requirements, particularly the SAA-based obligations. In the process of EU integration, only the state of BiH—not its constitutional subunits—is the EU's partner. BiH is responsible for transposing, implementing, and enforcing the *acquis communautaire*. Paradoxically, however, because of the Dayton Peace Agreement, transposition, implementation, and enforcement are within the competencies of the BiH constitutional subunits—the entities and the Brčko District—and can be realized only by them, not by the state of BiH. Thus, in practical terms, the state of BiH can perform only a coordinating role with respect to transposition, implementation, and enforcement. Certain measures designed to strengthen the authority of the state have been adopted but have yet to be fully implemented: the Support to BiH Water Policy program, for example, focuses on improving the capacity of the BiH institutions that are responsible for implementing international treaties and agreements (EuropeAid 2008). The obvious need for the development of a capable, coordinating state of BiH mechanism enhances the growing importance of the Ministry of Foreign Trade and Economic Relations. Proposals for the establishment of a state of BiH environmental protection agency, which were supported by the Federation of BiH water management strategy and also by the European Commission, remain unrealized (EC 2011; FMAWMF, SRBDA, and ASRBD 2012).

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<sup>35</sup> The Federation of BiH strategy was adopted in 2011, two years after the deadline set by the law. The deadline for the adoption of the river basin management plans (which were designed to implement the water policies set out in the water management strategy) was 2012. The deadline for the adoption of the Republic of Srpska strategy and river basin management plans is 2015. At the time of writing, neither of the entities, nor the Brčko District, had adopted river basin management plans.

<sup>36</sup> See, for example, the dissenting opinion of Judge Bonello in *Sejdic and Finci v. Bosnia and Herzegovina*, European Court of Human Rights, *Sejdic and Finci v. Bosnia and Herzegovina* [GC], Nos. 27996/06 and 34836/06, ECHR 2009. December 22, 2009.

## CONCLUSION

With respect to water resources, the current organization of BiH is unique among complex world states. Water management is completely decentralized, to the point where there is no coordination between the political units of BiH with respect to policy, legislation, resolution of disputes over shared waters, or other areas. Nor does the constitution of BiH clearly define the role of the state of BiH and its political units or assign a duty—or even a procedure—for cooperation regarding water management. Efforts to address practical needs (including upstream-downstream relations) have yielded a number of MOUs and the creation of a cooperative institution, none of which have proven effective. More recent attempts to regulate interentity cooperation have taken the form of provisions in the water laws that address the development and adoption of water management strategies. It remains to be seen whether this approach will provide the cooperation necessary for sustainable water management in BiH.

The integration of BiH into the EU has become the driving force for a number of changes, including efforts to strengthen BiH institutions, to adopt requisite legislation, and to modernize the constitution.<sup>37</sup> BiH's commitment, through the SAA, to formally integrate into the EU necessitates a clearly defined role for the state of BiH and its administrative authority—not only with respect to water management, but other areas as well.

Parallel efforts, primarily through programs put in place by the international community, have incorporated BiH into various regional and international water-management initiatives, including (1) international treaties that have established cooperative water management bodies for countries having territory within the Danube and Sava river basins and (2) Mediterranean and Adriatic Sea initiatives (for example, the Barcelona Convention and the National [BiH] Mediterranean Action Plan for 2001–2005).<sup>38</sup> The institutions of the state of BiH must be strengthened and upgraded if they are to fully participate in such cooperative processes, but the inflexible provisions of the Dayton Peace Agreement are inhibiting the necessary changes, and there is no clear way to overcome the impediments. Establishing a modern, integrated, and sustainable system based on EU policies for water management would undoubtedly be a significant contribution to the lasting stability of BiH and help to solidify peacebuilding in the nation.

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<sup>37</sup> As noted earlier, efforts to modernize the constitution may conflict with the Dayton Peace Agreement.

<sup>38</sup> The BiH Mediterranean Action Plan was among the national plans that resulted from the Mediterranean Conference of Water Stakeholders and Decision-Makers, Athens, Greece, November 2–4, 2000. For a summary of the core of the action plan based on materials from the Global Water Partnership, see [www.gwp.org/Documents/The%20Library/Note%20Briefings/GWP%20Med%20Core%20for%20Action%202001.pdf](http://www.gwp.org/Documents/The%20Library/Note%20Briefings/GWP%20Med%20Core%20for%20Action%202001.pdf).

## REFERENCES

- Bogdanovic, S. 2000. Water law after Dayton: The current state of regulation in Bosnia and Herzegovina. *Water International* 25 (4): 534–543.
- . 2001. Constitutional aspects of inter-entity co-operation relating to BiH water resources. Paper presented at “Legal Aspects of Sustainable Water Resources Management,” Teslic, Bosnia and Herzegovina, May 14–18.
- . 2002. Study of possibilities for inter-entity co-operation in shared water resources management: Constitutional-legal aspect. Unpublished report. Sarajevo, Bosnia and Herzegovina: Haskoning B.V. Consulting Engineers and Architects. On file with author.
- Bratić, R., U. Hrkalović, B. Đorđević, S. Čubrilo, M. Stevanović, and B. Blagojević. 2006. Okvirni plan razvoja vodoprivrede Republike Srpske. *Vodoprivreda* 38 (1–3): 119–129.
- Bruch, C., R. Wolfarth, and V. Michalcik. 2012. Natural resources, post-conflict reconstruction, and regional integration: Lessons from the Marshall Plan and other reconstruction efforts. In *Assessing and Restoring Natural Resources in Post-Conflict Peacebuilding*, ed. D. Jensen and S. Lonergan. London: Earthscan.
- CD&M (Camp Dresser & McKee International) and HEIS (Hydro-Engineering Institute Sarajevo). 1999. Water and wastewater sector: Plan for institutional strengthening; Ten selected pilot vodovods. Final report. October 6. Sarajevo, Bosnia and Herzegovina: United States Agency for International Development. [http://pdf.usaid.gov/pdf\\_docs/PNACP930.pdf](http://pdf.usaid.gov/pdf_docs/PNACP930.pdf).
- Commission of the European Communities. 2007a. Accompanying document to the communication from the Commission to the European Parliament and the Council: “Towards sustainable water management in the European Union”; First stage in the implementation of the Water Framework Directive. Commission Staff Working Document. 2000/60/EC [COM(2007)128 final] [SEC(2007)363]. March 22. Brussels, Belgium. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=SEC:2007:0362:FIN:EN:HTML>.
- . 2007b. Annex to the communication from the Commission to the European Parliament and the Council: “Towards sustainable water management in the European Union”; First stage in implementation of the Water Framework Directive 2000/60/EC. 4th Commission report (executive summary) on implementation of the urban waste water treatment directive. [COM(2007)128 final] [SEC(2007)362]. March 22. Brussels, Belgium. [http://ec.europa.eu/environment/water/water-framework/implrep2007/pdf/sec\\_2007\\_0363\\_en.pdf](http://ec.europa.eu/environment/water/water-framework/implrep2007/pdf/sec_2007_0363_en.pdf).
- DW (Directorate for Water, Ministry of Agriculture, Forestry and Water Management, Republic of Srpska). 2006. Framework plan on the Republic of Srpska water management [in Serbian]. Bijeljina. [www.voders.org/images/stories/OkvirniPlanRazvojaVodoprivrede.pdf](http://www.voders.org/images/stories/OkvirniPlanRazvojaVodoprivrede.pdf).
- EC (European Commission). 1998. Guide to the approximation of European Union environmental legislation. 2nd ed. SEC(97) 1608. January. <http://ec.europa.eu/environment/archives/guide/preface.htm>.
- EU (European Union). 2012. Acquis communautaire. [http://europa.eu/legislation\\_summaries/glossary/community\\_acquis\\_en.htm](http://europa.eu/legislation_summaries/glossary/community_acquis_en.htm).
- EuropeAid. 2008. Service procurement notice: Support to BiH water policy Bosnia and Herzegovina. EC/BiH/08/012. Sarajevo: Delegation of the European Commission to Bosnia and Herzegovina. <http://ec.europa.eu/europeaid/tender/data/d44/AOF88044.htm>.

### 380 Water and post-conflict peacebuilding

- EC (European Commission). 2011. Bosnia and Herzegovina 2011 progress report. Commission Staff Working Paper No. SEC(2011) 1206. Brussels, Belgium. [http://ec.europa.eu/enlargement/pdf/key\\_documents/2011/package/ba\\_rapport\\_2011\\_en.pdf](http://ec.europa.eu/enlargement/pdf/key_documents/2011/package/ba_rapport_2011_en.pdf).
- European Parliament and the Council of the European Union. 2000. Directive 2000/60/EC of the European Parliament and the European Council of 23 October 2000 establishing a framework for Community action in the field of water policy. *Official Journal of the European Communities* L (327): 1–21.
- . 2008. Council decision of 18 February 2008 on the principles, priorities, and conditions contained in the European Partnership with Bosnia and Herzegovina and repealing decision 2006/55/EC. (2008/211/EC.) *Official Journal of the European Union* L 80/18. March 19. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:080:0018:0031:EN:PDF>.
- Fejzibegović, S. 2008. Legal and institutional framework of water resources management. Presented at a workshop sponsored by the United Nations Educational, Scientific, and Cultural Organization, Thessaloniki, Greece, June 27–28.
- FMAWMF (Federal Ministry of Agriculture, Water Management and Forestry, Federation of Bosnia and Herzegovina), SRBDA (Sava River Basin District Agency), and ASRBD (Adriatic Sea River Basin District). 2012. Water management strategy of the Federation of Bosnia and Herzegovina. Sarajevo. [http://jadran.ba/strategija/SUV\\_FBiH\\_eng.pdf](http://jadran.ba/strategija/SUV_FBiH_eng.pdf).
- Hitchner, B. 2011. Change course, overhaul Dayton, fix Bosnia. *Peacefare.net*. August 1. [www.peacefare.net/?p=4128](http://www.peacefare.net/?p=4128).
- IMF (International Monetary Fund). 2004. Bosnia and Herzegovina: Poverty reduction strategy paper; Mid-term development strategy. IMF Country Report No. 04/114. April. Washington, D.C.
- MAFWM (Ministry of Agriculture, Forestry and Water Management, Republic of Srpska). 2007. Plan of action for realisation development frame plan of Republika Srpska water industry sector: Period of plan 2007–2016. March. Bijeljina. [www.voders.org/images/stories/Plan\\_action.pdf](http://www.voders.org/images/stories/Plan_action.pdf).
- MOFTER (Ministry of Foreign Trade and Economic Relations, Federation of Bosnia and Herzegovina). 2010. Department of environmental protection. [www.mvteo.gov.ba/org\\_struktura/sektor\\_prirodni\\_resursi/odjel\\_zastita\\_okolisa/?id=2034](http://www.mvteo.gov.ba/org_struktura/sektor_prirodni_resursi/odjel_zastita_okolisa/?id=2034).
- OHR Brčko Supervisor (United Nations Office of the High Representative Supervisor of Brčko). 2006. Supervisory order abolishing entity legislation within Brčko District and declaring the inter-entity boundary line to be of no further legal significance within the district. August 4. Sarajevo, Bosnia and Herzegovina: United Nations Office of the High Representative. [www.ohr.int/ohr-offices/brcko/bc-so/default.asp?content\\_id=37764](http://www.ohr.int/ohr-offices/brcko/bc-so/default.asp?content_id=37764).
- OSCE (Organization for Security and Co-operation in Europe). 2007. A look at water management in Bosnia and Herzegovina. Briefing paper presented at the second preparatory conference to the 15th OSCE Economic and Environmental Forum, Zaragoza, Spain, March 12–13.
- PM Group. 2011. Support to BiH water policy: “Technical note”; Sub-strategy for implementation of EU directive on assessment and management of flood risks (2007/60/EC). September. Sarajevo, Bosnia and Herzegovina: European Union IPA Programme. [www.fmpvs.gov.ba/texts/313\\_541\\_1032\\_e.pdf](http://www.fmpvs.gov.ba/texts/313_541_1032_e.pdf).
- . n.d. Support for water policy, Bosnia and Herzegovina. [www.pmggroup-global.com/sectors/International-financial-Institutions/IFI-Featured-Projects/support-for-water-policy-bosnia.aspx](http://www.pmggroup-global.com/sectors/International-financial-Institutions/IFI-Featured-Projects/support-for-water-policy-bosnia.aspx).

- Redžić, Sulejman S. 2007. The ecological aspect of ethnobotany and ethnopharmacology of population in Bosnia and Herzegovina. *Collegium Antropologicum* 31(3): 869–890.
- Royal Haskoning. 2001. River-basin bodies of inter-entity watercourses: Study of legal status. In *Water institutional strengthening of Bosnia and Herzegovina*. PHARE Project No. EC/BiH/99/045. Unpublished report. Sarajevo, Bosnia and Herzegovina. On file with author.
- Sahovic, M. 1996. Ustav Bosne i Hercegovine prema Dejtonskom sporazumu. *Medjunarodni Problemi* 48 (1–2): 33–42.
- Sarajevo Vodoprivreda. n.d. Geographic information system database of the Sarajevo Vodoprivreda. Data on file with author.
- Schreuer, C. 1999. The Brčko Final Award of 5 March 1999. *Leiden Journal of International Law* 12 (3): 575–581.
- Skejović-Hurić, N. 2009. Državna strategija, institucionalni i zakonski okvir u vodenom sektoru avna Budu e reforme u sektoru kori tenja voda Buduće koriš. Presented at “Developing Environmental Infrastructure Projects in the Water Sector in BiH,” Sarajevo, Bosnia and Herzegovina, February 19. [http://web.rec.org/documents/peip/docs/national\\_workshop\\_2009\\_feb19/presentations/13\\_PEIP\\_BIH\\_19022009\\_MOFTER\\_EN.pdf](http://web.rec.org/documents/peip/docs/national_workshop_2009_feb19/presentations/13_PEIP_BIH_19022009_MOFTER_EN.pdf).
- Sparavalo, Z. 1982. Zbirka saveznih i republickih propisa o vodama sa komentarom i tipskim primjerima sprovedenih akata. Sarajevo, Bosnia and Herzegovina: Vodoprivreda Bosne i Hercegovine.
- Stoett, P. 2005. Environmental security in post-Dayton Bosnia and Herzegovina. No. 29. October. Montreal, Quebec: Centre d’Études des Politiques Étrangères et de Sécurité. [www.er.uqam.ca/nobel/cepes/pdf/Bosnia\\_and\\_envifinal3.pdf](http://www.er.uqam.ca/nobel/cepes/pdf/Bosnia_and_envifinal3.pdf).
- Tuathail, G. O., J. O’Loughlin, and D. Djipa. 2006. Bosnia and Herzegovina ten years after Dayton: Constitutional change and public opinion. *Eurasian Geography and Economics* 47 (1): 61–75. [www.colorado.edu/ibs/pec/john/pub/Dayton10yrsafter.pdf](http://www.colorado.edu/ibs/pec/john/pub/Dayton10yrsafter.pdf).
- USAID (United States Agency for International Development) and BiH (Bosnia and Herzegovina) 1999. Water and wastewater sector: Plan for institutional strengthening; Ten selected pilot vodovods. Final report: 6 October 1999. [http://pdf.usaid.gov/pdf\\_docs/PNACP930.pdf](http://pdf.usaid.gov/pdf_docs/PNACP930.pdf).
- . 2012. Assistance in BiH: What did it achieve? <http://transition.usaid.gov/ba/about/history.htm>.
- YLI (Yugoslav Lexicographical Institute). 1979. Opća enciklopedija Jugoslavenskog Leksikografskog Zavoda. Zagreb.

