

**Reporting on global SDG indicator 6.5.2**  
**TEMPLATE of the second cycle for reporting**

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**Content of the template**

The template is divided into four parts:

- Section I - Calculation of SDG indicator 6.5.2
- Section II - Information on each transboundary basin or group of basins
- Section III - General information on transboundary water management at the national level
- Section IV - Final questions

Country name: [Bosnia and Herzegovina]

## I. Calculation of Sustainable Development Goal indicator 6.5.2

### *Methodology*

1. Using the information gathered in section II, the information gathered in this section allows for the calculation of Sustainable Development Goal global indicator 6.5.2, which is defined as the proportion of transboundary basin area with an operational arrangement for water cooperation.
2. The step-by-step monitoring methodology for indicator 6.5.2, developed by UNECE and UNESCO in the framework of UN-Water, should be referred to for details on the necessary data, the definitions and the calculation.<sup>a</sup>
3. The value of the indicator at the national level is derived by adding up the surface area in a country of those transboundary basins (river and lake basins and aquifers) that are covered by an operational arrangement and dividing the area obtained by the aggregate total area in a country of all transboundary basins (both river and lake basins, and aquifers).
4. Transboundary basins are basins of transboundary waters, that is, of any surface waters (notably rivers, lakes) or groundwaters which mark, cross or are located on boundaries between by two or more States. For the purpose of the calculation of this indicator, for a transboundary river or lake, the basin area is determined by the extent of its catchment. For groundwater, the area to be considered is the extent of the aquifer.
5. An “arrangement for water cooperation” is a bilateral or multilateral treaty, convention, agreement or other formal arrangement among riparian countries that provides a framework for cooperation on transboundary water management.
6. For an arrangement to be considered “operational” all the following criteria need to be in place in practice:
  - (a) There is a joint body, joint mechanism or commission (e.g., a river basin organization) for transboundary cooperation (criterion 1);
  - (b) There are regular (at least once per year) formal communications between riparian countries in form of meetings (either at the political or technical level) (criterion 2);
  - (c) Joint objectives, a common strategy, a joint or coordinated management plan, or an action plan have been agreed upon by the riparian countries (criterion 3);
  - (d) There is a regular (at least once per year) exchange of data and information (criterion 4).

### *Calculation of indicator 6.5.2*

7. Please list in the tables below the transboundary basins (rivers and lakes and aquifers) in your country’s territory and provide the following information for each of them:
  - (a) The country/ies with which the basin is shared;
  - (b) The surface area of the basin (the catchment of rivers or lakes and the aquifer in the case of groundwater) within the territory of your country (in square kilometres (km<sup>2</sup>));

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<sup>a</sup> Available from the UN-Water website: <https://www.sdg6monitoring.org/indicators/target-65/indicators652/> (updated version “2020”).

(c) Whether a map and/or a geographical information system (GIS) shapefile of the basin has been provided;

(d) Whether there is an arrangement in force for the basin;

(e) The verification of each of the four criteria to assess operationality;

(f) The surface area of the basin within the territory of your country which is covered by a cooperation arrangement that is operational according to the above criteria.

8. In case an operational arrangement is in place only for a sub-basin or a portion of a basin, please list this sub-basin just after the transboundary basin it is part of. In case there is an operational arrangement for the whole basin, do not list sub-basins in the table below.

Table 1  
**Transboundary river or lake basin (please add rows as needed)**

Name of transboundary river or lake basin/sub-basin	It is a basin or a sub-basin? <sup>b</sup>	Countries shared with	Surface area of the basin/sub-basin (in km <sup>2</sup> ) within the territory of the country	Map and/or GIS shapefile provided (yes/no)	Covered by an arrangement (entirely, partly, no) (Ref. to questions in sect. II)	Criterion 1 applied (yes/no) (Ref. to questions in sect. II)	Criterion 2 applied (yes/no) (Ref. to questions in sect. II)	Criterion 3 applied (yes/no) (Ref. to questions in sect. II)	Criterion 4 applied (yes/no) (Ref. to questions in sect. II)	Surface area of the basin/sub-basin (in km <sup>2</sup> ) covered by an operational arrangement within the territory of the country
Sava River Basin	Basin	Bosnia and Herzegovina, Slovenia, Croatia, Serbia, Montenegro and Albania	38.349,10 <sup>c</sup>	yes	partly	yes	yes	yes	yes	38,349.10
Adriatic Sea Watershed Area including Trebisnjica River Basin District	Basin	Bosnia and Herzegovina, Croatia and Montenegro	12.935,00 <sup>d</sup>	yes	partly	yes	yes	yes	yes	10.955,00
<b>(A)</b> Total surface area of transboundary basins/sub-basins of rivers and lakes covered by operational arrangements within the territory of the country (in km <sup>2</sup> ) (do not double count sub-basins)										49.304,10
<b>(B)</b> Total surface area of transboundary basins of rivers and lakes within the territory of the country (in km <sup>2</sup> )			51.284,10							

<sup>b</sup> List sub-basins after the basin they belong to.

<sup>c</sup> Joint Sava river Basin Management Plan developed under ISRBC

<sup>d</sup> 8.877 km<sup>2</sup> in FBiH (Adriatic sea watershed area management plan, 4.058 km<sup>2</sup> in RS (Trebisnjica river basin district management plan)



<i>Name of transboundary river or lake basin/sub-basin</i>	<i>It is a basin or a sub-basin? <sup>b</sup></i>	<i>Countries shared with</i>	<i>Surface area of the basin/sub-basin (in km<sup>2</sup>) within the territory of the country</i>	<i>Map and/or GIS shapefile provided (yes/no)</i>	<i>Covered by an arrangement (entirely, partly, no) (Ref. to questions in sect. II)</i>	<i>Criterion 1 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Criterion 2 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Criterion 3 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Criterion 4 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Surface area of the basin/sub-basin (in km<sup>2</sup>) covered by an operational arrangement within the territory of the country</i>
<b>(do not double count sub-basins)</b>										

Table 2

**Transboundary aquifers (please add rows as needed)**

<i>Name of the transboundary aquifer</i>	<i>Countries shared with</i>	<i>Surface area of the aquifer<sup>e</sup> (in km<sup>2</sup>) within the territory of the country</i>	<i>Map and/or GIS shapefile provided (yes/no)</i>	<i>Covered by an aquifer specific arrangement (entirely, partly, no) (Ref. to questions in sect. II)</i>	<i>Covered within an arrangement not specific to the aquifer<sup>f</sup> (entirely, partly, no) (Ref. to questions in sect. II)</i>	<i>Criterion 1 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Criterion 2 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Criterion 3 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Criterion 4 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Surface area of the aquifer (in km<sup>2</sup>) covered by an operational arrangement within the territory of the country</i>
Gornji sliv Korane – Cazin	Bosnia and Herzegovina and Croatia	124,7	yes	no	entirely	yes	yes	yes	yes	124,7
Gornji sliv Une	Bosnia and Herzegovina and Croatia	1.171,9	yes	no	entirely	yes	yes	yes	yes	1.171,9
Romanija-Devetak	Bosnia and Herzegovina and Serbia	1.337.3	yes	no	no	no	no	no	no	0
Posavina	Bosnia and Herzegovina and Croatia	1.601,4	yes	no	entirely	yes	yes	yes	yes	1.601,4
Lijeve polje	Bosnia and Herzegovina and Croatia	595,7	yes	no	entirely	yes	yes	yes	yes	595,7

<sup>e</sup> For a transboundary aquifer, the extent is derived from the aquifer system delineation which is commonly done relying on information of the subsurface (notably the extent of geological formations). As a general rule, the delineation of aquifer systems is based on the delineation of the extent of the hydraulically connected water-bearing geological formations. Aquifer systems are three-dimensional objects and the aquifer area taken into account is the projection on the land surface of the system. Ideally, when different aquifer systems not hydraulically connected are vertically superposed, the different relevant projected areas are to be considered separately, unless the different aquifer systems are managed conjunctively.

<sup>f</sup> In the text of the agreement or arrangement or in the practice.

<i>Name of the transboundary aquifer</i>	<i>Countries shared with</i>	<i>Surface area of the aquifer<sup>e</sup> (in km<sup>2</sup>) within the territory of the country</i>	<i>Map and/or GIS shapefile provided (yes/no)</i>	<i>Covered by an aquifer specific arrangement (entirely, partly, no) (Ref. to questions in sect. II)</i>	<i>Covered within an arrangement not specific to the aquifer<sup>f</sup> (entirely, partly, no) (Ref. to questions in sect. II)</i>	<i>Criterion 1 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Criterion 2 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Criterion 3 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Criterion 4 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Surface area of the aquifer (in km<sup>2</sup>) covered by an operational arrangement within the territory of the country</i>
Semberija	Bosnia and Herzegovina and Serbia	465,1	yes	no	no	no	no	no	no	0
Tara-Cehotina	Bosnia and Herzegovina and Montenegro	245,2	yes	no	no	no	no	no	no	0
Dubicko polje	Bosnia and Herzegovina and Croatia	147,1	yes	no	entirely	yes	yes	yes	yes	147,1
Gornja Drina	Bosnia and Herzegovina and Montenegro	463,9	yes	no	no	no	no	no	no	0
Posusje-Imotski	Bosnia and Herzegovina and Croatia	297,61	yes	no	entirely	yes	yes	yes	yes	297,61
Tihaljina	Bosnia and Herzegovina and Croatia	252,57	yes	no	entirely	yes	yes	yes	yes	252,57
Prud	Bosnia and Herzegovina and Croatia	121,27	yes	no	entirely	yes	yes	yes	yes	121,27
Neretva lijeva obala	Bosnia and Herzegovina and Croatia	104,06	yes	no	entirely	yes	yes	yes	yes	104,06
Aluvij Capljina	Bosnia and Herzegovina and	40,98	yes	no	entirely	yes	yes	yes	yes	40,98

<i>Name of the transboundary aquifer</i>	<i>Countries shared with</i>	<i>Surface area of the aquifer<sup>e</sup> (in km<sup>2</sup>) within the territory of the country</i>	<i>Map and/or GIS shapefile provided (yes/no)</i>	<i>Covered by an aquifer specific arrangement (entirely, partly, no) (Ref. to questions in sect. II)</i>	<i>Covered within an arrangement not specific to the aquifer<sup>f</sup> (entirely, partly, no) (Ref. to questions in sect. II)</i>	<i>Criterion 1 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Criterion 2 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Criterion 3 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Criterion 4 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Surface area of the aquifer (in km<sup>2</sup>) covered by an operational arrangement within the territory of the country</i>
	Croatia									
Zavrļje	Bosnia and Herzegovina and Croatia	49,14	yes	no	entirely	yes	yes	yes	yes	49,14
Duboka ljuta	Bosnia and Herzegovina and Croatia	82,70	yes	no	entirely	yes	yes	yes	yes	82,70
Ombla	Bosnia and Herzegovina and Croatia	577,63	yes	no	entirely	yes	yes	yes	yes	577,63
Zaton	Bosnia and Herzegovina and Croatia	29,35	yes	no	entirely	yes	yes	yes	yes	29,35
Doli-Slano	Bosnia and Herzegovina and Croatia	152,96	yes	no	entirely	yes	yes	yes	yes	152,96
Bistrina	Bosnia and Herzegovina and Croatia	24,87	yes	no	entirely	yes	yes	yes	yes	24,87
Butina	Bosnia and Herzegovina and Croatia	4,75	yes	no	entirely	yes	yes	yes	yes	4,75
Vrgoracka banja	Bosnia and Herzegovina and Croatia	27,48	yes	no	entirely	yes	yes	yes	yes	27,48

<i>Name of the transboundary aquifer</i>	<i>Countries shared with</i>	<i>Surface area of the aquifer<sup>e</sup> (in km<sup>2</sup>) within the territory of the country</i>	<i>Map and/ or GIS shapefile provided (yes/no)</i>	<i>Covered by an aquifer specific arrangement (entirely, partly, no) (Ref. to questions in sect. II)</i>	<i>Covered within an arrangement not specific to the aquifer<sup>f</sup> (entirely, partly, no) (Ref. to questions in sect. II)</i>	<i>Criterion 1 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Criterion 2 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Criterion 3 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Criterion 4 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Surface area of the aquifer (in km<sup>2</sup>) covered by an operational arrangement within the territory of the country</i>	
Lijeva obala rijeke Cetine	Bosnia and Herzegovina and Croatia	1071,68	yes	no	entirely	yes	yes	yes	yes	1071,68	
Gornji tok rijeke Krke	Bosnia and Herzegovina and Croatia	335,47	yes	no	entirely	yes	yes	yes	yes	335,47	
Konavoska ljuta	Bosnia and Herzegovina and Croatia	87	yes	no	entirely	yes	yes	yes	yes	87	
<b>(C) Sub-total: surface area of transboundary aquifers covered by operational arrangements (in km<sup>2</sup>)</b>										6.900,32	
<b>(D) Total surface area of transboundary aquifers (in km<sup>2</sup>)</b>		9.411,82									

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### **Indicator value for the country**

#### **Surface waters:**

Percentage of surface area of transboundary basins of rivers and lakes covered by an operational arrangement:

$$A/B \times 100 = 49.304,10/51.284,10 \times 100 = 96,14\%$$

#### **Aquifers:**

Percentage of surface area of transboundary aquifers covered by an operational arrangement:

$$C/D \times 100 = 6.900,32/9.411,82 \times 100 = 73,31\%$$

#### **Sustainable Development Goal indicator 6.5.2:**

Percentage of surface area of transboundary basins covered by an operational arrangement:

$$((A + C)/(B + D)) \times 100 = ((49.304,10 + 6.900,32)/(51.284,10 + 9.411,82)) \times 100 = 92,59\%$$

#### **Spatial information**

If a map (or maps) of the transboundary surface water catchments and transboundary aquifers (i.e., “transboundary basins”) is available, please consider attaching them. Ideally, shapefiles of the basin and aquifer delineations that can be viewed in GIS should be sent.

Following maps are attached to this report:

1. Danube River Basin District Overview,
2. Sava River Basin Overview,
3. Sava River Basin in BiH,
4. Transboundary Aquifers in the Sava River Basin,
5. Adriatic Sea Watershed Area including Trebisnjica River Basin District,
6. Transboundary Aquifers in the Adriatic Sea Watershed Area including Trebisnjica River Basin District.

#### **Additional information**

If the respondent has comments that clarify assumptions or interpretations made for the calculation, or the level of certainty of the spatial information, please write them here:

All data used for calculation of Indicator were taken from River Basin Management Plans adopted in Bosnia and Herzegovina.

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Does your country have transboundary agreements or arrangements for the protection and/or management of transboundary waters (i.e., rivers, lakes or groundwater), whether bilateral or multilateral?

Yes /No

*If yes, list the bilateral and multilateral agreements or arrangements (listing for each of the countries concerned):*

**[Multilateral:**

1. Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention)<sup>1</sup>,
2. Convention on Cooperation for the Protection and Sustainable use of the Danube River (Danube River Protection Convention)<sup>2</sup> (Contracting Parties to the Convention are Austria, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Germany, Hungary, Moldova, Montenegro, Romania, Slovakia, Slovenia, Serbia, Ukraine and the European Union)
3. Framework Agreement on the Sava River Basin (FASRB)<sup>3</sup> (Contracting parties to the agreement are Bosnia and Herzegovina, Croatia, Serbia and Slovenia). Since Montenegro is not part to the FASRB cooperation with this country is regulated through Memorandum of Understanding signed between Sava Commission and Montenegro back in 2013.

In addition to FASRB following Protocols have been signed in order to further elaborate and determine cooperation between countries in the Sava River Basin<sup>4</sup>:

- a. Protocol on Prevention of Water Pollution caused by Navigation to FASRB
  - b. Protocol on Flood Protection to FASRB
  - c. Protocol on Sediment Management to FASRB
  - d. Policy on the Exchange of Hydrological and Meteorological Data and Information in the Sava River Basin
  - e. Memorandum of Understanding on Cooperation Concerning Regular Functioning and Maintenance of the Flood Forecasting and Warning System in the Sava River Basin<sup>5</sup>.
4. Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona convention)

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<sup>1</sup> <http://www.unece.org>

<sup>2</sup> [www.icpdr.org](http://www.icpdr.org)

<sup>3</sup> <http://www.savacommission.org>

<sup>4</sup> Additional Protocol on emergency Situations is under negotiations

<sup>5</sup> MoU signed on 1 July 2020

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**Bilateral:**

1. 1996 Agreement between Government of Bosnia and Herzegovina and Government of Republic of Croatia on regulation of water management relations<sup>6</sup>,
2. 2005 Agreement between the Council of Ministers of BiH and the Government of Croatia on joint financing, maintenance and operation of the regional waste water system Komarna-Neum-Mljet channel,
3. 2015 Agreement between the Council of Ministers of BiH and the Government of Croatia on rights and obligations for usage of public water supply systems crossing across state's borders.

Bilateral agreements on cooperation in the field of water management with two other neighbouring countries Montenegro and Serbia are planned to be agreed and signed in coming years.]

**II. Questions for each transboundary basin, sub-basin, part of a basin, or group of basins (river, lake or aquifer)**

Please complete this second section for each transboundary basin (river or lake basin, or aquifer), sub-basin, part of a basin or a group of basins covered by the same agreement or arrangement where conditions are similar.<sup>7</sup> In some instances, you may provide information on both a basin and one or more of its sub-basins or parts thereof, for example, where you have agreements<sup>8</sup> or arrangements on both the basin and its sub-basin. You may coordinate your responses with other States with which your country shares transboundary waters, or even prepare a joint report. General information on transboundary water management at the national level should be provided in section III and not repeated here.

Please reproduce this whole section with its questions for each transboundary basin, sub-basin, part of a basin or group of basins for which you will provide a reply.

**Name of the transboundary basin,-sub-basin, part of a basin or group of basins:**

**[Sava River Basin]**

List of the riparian States:

[Bosnia and Herzegovina (39,25%), Croatia (25,97%), Serbia (15,50%), Slovenia (12,01%), Montenegro (7,09%), Albania (0,18%)]

**In the case of an aquifer, what is the nature of the aquifer and its relation with the river or lake basin:**

- |   |                          |
|---|--------------------------|
| Unconfined aquifer connected to a river or lake                   | <input type="checkbox"/> |
| Unconfined aquifer with no or limited relation with surface water | <input type="checkbox"/> |
| Confined aquifer connected to surface water                       | <input type="checkbox"/> |

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<sup>7</sup> In principle, section II should be submitted for every transboundary basin, river, lake or aquifer, in the country, but States may decide to group basins in which their share is small or leave out basins in which their share is very minor, e.g., below 1 per cent.

<sup>8</sup> In section II, "agreement" covers all kinds of treaties, conventions and agreements ensuring cooperation in the field of transboundary waters. Section II can also be completed for other types of arrangements, such as memorandums of understanding.



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Confined aquifer with no or limited relation with surface water

Other

Please describe: [fill in]

Unknown

**Percentage of your country's territory within the basin, sub-basin, part of a basin or group of basins:**

[39,25%]

1. Is there one or more transboundary (bilateral or multilateral) agreement(s) or arrangement(s) on this basin, sub-basin, part of a basin or group of basins?

One or more agreements or arrangements exist and are in force

Agreement or arrangement developed but not in force

Agreement or arrangement developed, but not in force for all riparians

*Please insert the name of the agreement(s) or arrangement(s)*

[1. Framework Agreement on the Sava River Basin (FASRB) and additional protocols and policy document to this agreement as follows:

1.1. Protocol on Prevention of Water Pollution caused by Navigation to FASRB

1.2. Protocol on Flood Protection to FASRB

1.3. Protocol on Sediment Management to FASRB

1.4. Policy on the Exchange of Hydrological and Meteorological Data and Information in the Sava River Basin

1.5. Memorandum of Understanding on Cooperation Concerning Regular Functioning and Maintenance of the Flood Forecasting and Warning System in the Sava River Basin<sup>9</sup>

1.6. Memorandum of Understanding signed between International Sava River Basin Commission and Montenegro

2. Convention on Cooperation for the Protection and Sustainable use of the Danube River (Danube River Protection Convention)

3. Agreement between Government of Bosnia and Herzegovina and Government of Republic of Croatia on regulation of water management relations,

4. Agreement between the Council of Ministers of BiH and the Government of Croatia on joint financing, maintenance and operation of the regional waste water system Komarna-Neum-Mljet channel,

5. Agreement between the Council of Ministers of BiH and the Government of Croatia on rights and obligations for usage of public water supply systems crossing across state's borders.]

Agreement or arrangement is under development

No agreement or arrangement

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<sup>9</sup> Formally accepted by all five countries, to be signed by the end of June 2020

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*If there is no agreement or arrangement or it is not in force, please explain briefly why not and provide information on any plans to address the situation:*

[Priority of the Council of Ministers of Bosnia and Herzegovina is to sign bilateral agreements with Republic of Serbia and Montenegro on transboundary water cooperation.

Draft Agreement with the Government of Republic of Serbia is already prepared, however agreement still is not signed due to other issues not directly linked to transboundary water management between two countries such as still not agreed position of the interstate borders and opened issues related to usage of hydropower potential on the Drina river.

Initial draft agreements between Bosnia and Herzegovina and Montenegro were exchanged, however further development of the agreement is not progressing due to opened issues related to usage of the hydropower potential on the Trebisnjica river.]

**If there is no agreement or arrangement and no joint body or mechanism for the transboundary basin, sub-basin, part of a basin or group of basins then jump to question 4; if there is no agreement or arrangement, but a joint body or mechanism then go to question 3.**

**Questions 2 and 3 to be completed for each bilateral or multilateral agreement or arrangement in force in the transboundary basin, sub-basin, part of a basin or group of basins.**

2. (a) Does this agreement or arrangement specify the area subject to cooperation?

Yes /No

If yes, does it cover the entire basin or group of basins and all riparian States?

Yes /No

Additional explanations?

[FASRB with its Protocols covers entirely parts of the Sava River Basin in Bosnia and Herzegovina, Croatia, Serbia and Slovenia which is 92,73% of the whole basin area. Montenegro<sup>10</sup> and Albania<sup>11</sup> are not covered by the FASRB. However, Montenegro and International Sava River Basin Commission (ISRBC), established by the FASRB, signed Memorandum of Understanding in 2013.

Montenegro is party to the Danube River Protection Convention and full member of International Commission for Protection of Danube River (ICPDR).]

Or, if the agreement or arrangement relates to a sub-basin, does it cover the entire sub-basin?

Yes /No

Additional explanations?

[Sava river Basin is the largest sub-basin in the Danube River Basin. FASRB with its Protocols covers entirely parts of the Sava River Basin in Bosnia and Herzegovina, Croatia, Serbia and Slovenia which is 92,73% of the whole basin area. Montenegro and Albania are not covered by the FASRB. However, Montenegro and

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<sup>10</sup> Part of the Sava River Basin in Montenegro is 7,09%

<sup>11</sup> Part of the Sava River Basin in Albania is 0,18%

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International Sava River Basin Commission (ISRBC), established by the FASRB, signed Memorandum of Understanding in 2013.

Montenegro is party to the Danube River Protection Convention and full member of International Commission for Protection of Danube River (ICPDR).]

Which States (including your own) are bound by the agreement or arrangement?  
(Please list):

[Bosnia and Herzegovina, Croatia, Serbia and Slovenia are parties to the FASRB.

Austria, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Germany, Hungary, Moldova, Montenegro, Romania, Serbia, Slovakia, Slovenia, Ukraine are parties to the Danube River Protection Convention.

Bosnia and Herzegovina and Croatia are parties to the bilateral agreement between Government of Bosnia and Herzegovina and Government of Republic of Croatia on regulation of water management relations.

It is important to stress that activities under these agreements complement each other.]

(b) If the agreement or arrangement relates to a river or lake basin or sub-basin, does it also cover aquifers?

Yes /No

If yes, please list the aquifers covered by the agreement or arrangement:

[Danube River Protection Convention covers Danube river basin in above listed countries. However Danube river basin management plan covers surface and groundwater bodies which size is greater than 4000 km<sup>2</sup>. There are no aquifers of this size identified within the Danube river basin management plan.

FASRB covers Sava river basin in above listed countries. However Sava river basin management plan covers surface and groundwater bodies which size is greater than 1000 km<sup>2</sup> and they are: Posavina II, Ronamija-Devetak-Sjemec, Treskavica-Zelengora-Lelija-Maglic, Manjaca-Cemernica-Vlasic, Grmec-Srnetica-Lunjevica-Vitorog, Unac and Pljesevica.

Except for Plješevice, these groundwater bodies are not transboundary. Plješevice has a very small size (120 km<sup>2</sup>) (please see

[http://www.savacommission.org/dms/docs/dokumenti/srbmp\\_micro\\_web/backgroundpapers\\_approved/no\\_2\\_background\\_paper\\_gwbs\\_in\\_the\\_sava\\_rb.pdf](http://www.savacommission.org/dms/docs/dokumenti/srbmp_micro_web/backgroundpapers_approved/no_2_background_paper_gwbs_in_the_sava_rb.pdf)).

Bilateral cooperation with Croatia on Sava River Basin covers following aquifers: Gornji sliv Korane – Cazin, Gornji sliv Une, Posavina, Lijevece polje and Dubicko polje.]

(c) What is the sectoral scope of the agreement or arrangement?

All water uses

A single water use or sector

Several water uses or sectors

*If one or several water uses or sectors, please list (check as appropriate):*

**Water uses or sectors**

Industry

Agriculture

- 
- Transport (e.g., navigation)
  - Households
  - Energy: hydropower and other energy types
  - Fisheries
  - Tourism
  - Nature protection
  - Other (*please list*): [fill in]

(d) What topics or subjects of cooperation are included in the agreement or arrangement?

**Procedural and institutional issues**

- Dispute and conflict prevention and resolution
- Institutional cooperation (joint bodies)
- Consultation on planned measures
- Mutual assistance

**Topics of cooperation**

- Joint vision and management objectives
- Joint significant water management issues
- Navigation
- Human health
- Environmental protection (ecosystem)
- Water quality
- Water quantity or allocation
- Cooperation in addressing floods
- Cooperation in addressing droughts
- Climate change adaptation

**Monitoring and exchange**

- Joint assessments
- Data collection and exchange
- Joint monitoring
- Maintenance of joint pollution inventories
- Elaboration of joint water quality objectives
- Common early warning and alarm procedures
- Exchange of experience between riparian States
- Exchange of information on planned measures

**Joint planning and management**

- Development of joint regulations on specific topics

- 
- Development of international or joint river, lake or aquifer basin management or action plans
  - Management of shared infrastructure
  - Development of shared infrastructure
  - Other (*please list*): [fill in]

(e) What are the main difficulties and challenges that your country faces with the agreement or arrangement and its implementation, if any?

- Aligning implementation of agreement or arrangement with national laws, policies and programmes
- Aligning implementation of agreement or arrangement with regional laws, policies and programmes
- Lack of financial resources
- Insufficient human capacity
- Insufficient technical capacity
- Tense diplomatic relations
- Non-participation of certain riparian countries in the agreement
- No significant difficulties
- Other (*please describe*): [fill in]

(f) What are the main achievements in implementing the agreement or arrangement and what were the keys to achieving such success?

[Main achievements under the FASRB are: International Sava River Basin Commission was established and it is operational since 2004; Sava River Basin Management Plan was adopted; in addition to FASRB several Protocols have agreed; SavaGIS and SavaHIS platforms for data exchange are developed and they are operational; Flood Risk Management Plan was adopted; Joint flood forecasting and warning system is developed and it is operational, navigation is improved, new joint development programmes for navigation and flood protection are identified, additional financing mechanisms are catalysed, support to development of sustainable tourism in Sava River Basin is provided.

Main achievements under the Danube River Protection Convention are: International Commission for the Protection of Danube River is operational for more than 15 years, Danube River Basin management Plan was adopted, Flood Risk Management Plan was adopted, Trans National Monitoring Network is operational, Joint Danube Survey being conducted every 3 years, improved chemical and ecological quality of basin, accident prevention control and warning system is developed.

Main achievements under bilateral agreement between Bosnia and Herzegovina and Croatia are: bilateral Commission for Water Management Cooperation is operational since 2006, Commission discuss bilateral issues between two countries; additional Agreement on rights and obligations for usage of public water supply systems crossing across state's borders signed; Countries throughout bilateral Commission and sub-commissions approve operational costs, investment costs and tariffs of the water supply and sanitation systems jointly constructed and operated by both countries and systems that are crossing across state's borders, throughout bilateral Commission countries discuss projects of transboundary relevance, number of capacity building, scientific and investments projects in the water sector has been

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successfully implemented, joint regulation on protection of sanitary zones is under development etc.]

(g) Please attach a copy of the agreement or arrangement or provide the web address of the document (*please attach document or insert web address, if applicable*):

[FASRB and related protocols and policy  
[https://www.savacommission.org/basic\\_docs](https://www.savacommission.org/basic_docs)

Danube River Protection Convention <https://www.icpdr.org/main/icpdr/danube-river-protection-convention>

Agreement between Government of Bosnia and Herzegovina and Government of Republic of Croatia on regulation of water management relations is attached to this Report as Annex 1.]

3. Is your country a member of any joint body or mechanism for this agreement or arrangement?

Yes /No

*If no, why not? (please explain):* [fill in]

**Where there is a joint body or mechanism**

(a) If there is a joint body or mechanism, which kind of joint body or mechanism (*please tick one*)?

Plenipotentiaries

Bilateral commission

Basin or similar commission

Expert group meeting or meeting of national focal points

Other (*please describe*): [fill in]

(b) Does the joint body or mechanism cover the entire transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

(c) Which States (including your own) are members of the joint body or mechanism? (*Please list*):

[Bosnia and Herzegovina, Slovenia, Croatia and Serbia are members of ISRBC.

Austria, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Germany, Hungary, Moldova, Montenegro, Romania, Serbia, Slovakia, Slovenia, Ukraine are members of ICPDR.

Bosnia and Herzegovina and Croatia are members of Bilateral Commission for water management cooperation

It is important to stress that activities of these commissions complement each other.]

(d) Are there any riparian States that are not members of the joint body or mechanism? (*please list*):

[Montenegro is not member of the ISRBC.

Albania, Italy, North Macedonia, Poland and Switzerland are not members of ICPDR due to small parts of the basin in these countries.]

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(e) If not all riparian States are members of the joint body or mechanism how does the joint body or mechanism cooperate with them?

No cooperation

They have observer status

Other (*please describe*):

[Montenegro and ISRBC signed Memorandum of Understanding in 2013 which enabled participation of Montenegro in the activities of ISRBC such as River basin management plan development, flood risk management plan development, data exchange, development, regular operation and maintenance of the flood forecasting and early warning system, cross sectorial cooperation etc. Albania has tiny part of the Sava River Basin (0,18%) and it is not member of ISRBC.

Cooperation with Albania in Sava River Basin was not established since tiny part of the Sava River Basin (0,18%) belongs to Albania.

Due to small size of the Danube basin in Albania, Italy, North Macedonia, Poland and Switzerland ICPDR did not established regular cooperation with these countries.]

(f) Does the joint body or mechanism have any of the following features (*please tick the ones applicable*)?

A secretariat

*If the secretariat is a permanent one, is it a joint secretariat or does each country host its own secretariat? (Please describe):*

[Following article 18 of the FASRB, ISRBC had established joint Secretariat. Seat of the Secretariat is in Zagreb (Croatia). Secretariat staff is employed from all four countries. Operation of ISRBC and its Secretariat is financed through annual contributions of the countries.

ICPDR established Permanent Secretariat with seat in Vienna. Operations of ICPDR and its Secretariat are financed through annual contribution of the countries.]

A subsidiary body or bodies

*Please list (e.g., working groups on specific topics):*

[ISRBC had established following expert and ad-hoc groups: Permanent Expert Group for Navigation, Permanent Expert Group for River Basin Management, Permanent Expert Group for Accident Prevention and Control, Permanent Expert Group for Flood Prevention, Ad-hoc Legal Expert Group, Ad-hoc Expert Group for Hydrological and Meteorological Issues, Ad-hoc Expert Group for Hydrological Issues related to Navigation, Ad-hoc GIS Expert Group, Ad-hoc RIS Expert Group, Ad-hoc Financial Expert Group. Each country have nominated their representatives to the above listed groups. Secretariat is coordinating and chairing each of the group.

ICPDR had established following expert and task groups: Expert Group for River Basin Management, Expert Group for Flood Protection, Expert Group for Pressures and Measures, Expert Group for Accident Prevention and Control, Expert Group for Monitoring and Assessment, Expert Group for Information Management and Geographic Information Systems, Expert Group for Public Participation, Strategic Expert Group, Economic Task Group, Ground Water Task Group, Hydromorphology Task Group, Nutrient Task Group, and Climate Change Task Group.

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Bilateral Commission for Water Management Cooperation between BiH and Croatia had established two sub-commissions: Sub-commission for Black sea watershed area, and Sub-commission for Adriatic sea watershed area.]

Other features (*please list*): [fill in]

(g) What are the tasks and activities of this joint body or mechanism?<sup>12</sup>

- |   |                                     |
|---|-------------------------------------|
| Identification of pollution sources   | <input checked="" type="checkbox"/> |
| Data collection and exchange  | <input checked="" type="checkbox"/> |
| Joint monitoring  | <input checked="" type="checkbox"/> |
| Maintenance of joint pollution inventories  | <input checked="" type="checkbox"/> |
| Setting emission limits   | <input type="checkbox"/>            |
| Elaboration of joint water quality objectives   | <input checked="" type="checkbox"/> |
| Management and prevention of flood or drought risks   | <input checked="" type="checkbox"/> |
| Preparedness for extreme events, e.g., common early warning and alarm procedures                  | <input checked="" type="checkbox"/> |
| Surveillance and early warning of water related disease   | <input type="checkbox"/>            |
| Water allocation and/or flow regulation   | <input checked="" type="checkbox"/> |
| Policy development  | <input checked="" type="checkbox"/> |
| Control of implementation   | <input checked="" type="checkbox"/> |
| Exchange of experience between riparian States  | <input checked="" type="checkbox"/> |
| Exchange of information on existing and planned uses of water and related installations           | <input checked="" type="checkbox"/> |
| Settling of differences and conflicts   | <input checked="" type="checkbox"/> |
| Consultations on planned measures   | <input checked="" type="checkbox"/> |
| Exchange of information on best available technology  | <input checked="" type="checkbox"/> |
| Participation in transboundary EIA  | <input type="checkbox"/>            |
| Development of river, lake or aquifer basin management or action plans                            | <input checked="" type="checkbox"/> |
| Management of shared infrastructure   | <input checked="" type="checkbox"/> |
| Addressing hydromorphological alterations   | <input checked="" type="checkbox"/> |
| Climate change adaptation   | <input checked="" type="checkbox"/> |
| Joint communication strategy  | <input checked="" type="checkbox"/> |
| Basin-wide or joint public participation and consultation of, for example, basin management plans | <input checked="" type="checkbox"/> |
| Joint resources to support transboundary cooperation  | <input checked="" type="checkbox"/> |

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<sup>12</sup> This may include tasks according to the agreement or tasks added by the joint body, or its subsidiaries. Both tasks which joint bodies coordinate and tasks which they implement should be included.



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Capacity-building

Any other tasks (*please list*): [fill in]

(h) What are the main difficulties and challenges that your country faces with the operation of the joint body or mechanism, if any?

Governance issues

*Please describe, if any:* [fill in]

Unexpected planning delays

*Please describe, if any:* [fill in]

Lack of resources

*Please describe, if true:*

[Operation of the Joint Secretariats under the ICPDR and ISRBC are financed through regular annual contributions. However, these contributions are not sufficient to finance implementation of all planned activities thus both commissions very much rely on the external financing from various sources as well as on the activities and support from the institutions and experts from each country. Additionally, budgets of the national institutions do not provide enough resources to ensure participation of required number of experts from the countries.]

Lack of mechanism for implementing measures

*Please describe, if true:* [fill in]

Lack of effective measures

*Please describe, if true:* [fill in]

Unexpected extreme events

*Please describe, if any:* [fill in]

Lack of information and reliable forecasts

*Please describe, if any:*

[In some cases where there were/is no continuous monitoring (hydrometeorological, hydromorphological, ground water, climate change etc.) information are missing.]

Others (*please list and describe, as appropriate*): [fill in]

(i) Does the joint body or mechanism, or its subsidiary bodies meet regularly?

Yes /No

If yes, how frequently does it meet?

More than once per year

Once per year

Less than once per year

(j) What are the main achievements with regards to the joint body or mechanism?

[Please see respond on question 2.f. ]

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(k) Did the joint body or mechanism ever invite a non-riparian coastal State to cooperate?

Yes /No

*If yes, please give details. If no, why not, e.g. are the relevant coastal States also riparian States and therefore already members of the joint body or mechanism?*

[Question is not relevant for the Sava River Basin.]

Regular cooperation with costal countries and joint bodies such as Black Sea Commission have been established throughout the activities of the ICPDR.]

4. Have joint objectives, a common strategy, a joint or coordinated management plan or action plan been agreed for the basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, please provide further details:*

[According to article 12 of FASRB, Sava River Basin Management Plan<sup>13</sup> was adopted by the Parties in December 2014. Plan is developed in line with EU Water Framework Directive and other relevant EU legislation. Regular update of the Sava River Basin Management Plan is ongoing.]

According to article 8 of the Protocol on Flood Protection to FASRB Parties adopted Joint Flood Risk Management Plan for the Sava River Basin at the 8<sup>th</sup> Meeting of the Parties, held in October 2019.

Under the activities of the ICPDR Danube River Basin Management Plan (2016-2021) and Danube Flood Risk Management Plan (2016-2021) were adopted in December 2015, and confirmed by the Ministerial Declaration in February 2016. Regular update of both plans is ongoing<sup>14</sup>.]

5. How is the transboundary basin,–sub-basin, part of a basins or group of basins protected, including the protection of ecosystems, in the context of sustainable and rational water use?

Regulation of urbanization, deforestation, and sand and gravel extraction.

Environmental flow norms, including consideration of levels and seasonality

Water quality protection, e.g. nitrates, pesticides, faecal coliforms, heavy metals

Water-related species and habitats protection

Other measures (*please describe*): [fill in]

6. (a) Does your country regularly exchange information and data with other riparian States in the basin, sub-basin, part of a basin or group of basins?

Yes /No

(b) If yes, how often:

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<sup>13</sup> <http://www.savacommission.org/srbmp/>

<sup>14</sup> <https://www.icpdr.org/main/management-plans-danube-river-basin-published>

- More than once per year
- Once per year
- Less than once per year

(c) Please describe how information is exchanged (e.g. in connection with meetings of joint bodies):

[As it was explained earlier there are several expert and ad-hoc/task groups established to deal with specific issues. Each of these groups has its own mandate. Dynamics of activities of each group related to data exchange vary depending to its priorities and agenda. The most intensive data collection and exchange campaign is linked to preparation of the River Basin Management Plans and Flood Risk Management Plans. However most of the information are exchanged on an annual basis.]

(d) If yes, on what subjects are information and data exchanged?

- Environmental conditions
- Research activities and application of best available techniques
- Emission monitoring data
- Planned measures taken to prevent, control or reduce transboundary impacts
- Point source pollution sources
- Diffuse pollution sources
- Existing hydromorphological alterations (dams, etc.)
- Flows or water levels (including groundwater levels)
- Water abstractions
- Climatological information
- Future planned measures with transboundary impacts, such as infrastructure development
- Other subjects (*please list*): [fill in]
- Other comments, e.g. spatial coverage of data and information exchange: [fill in]

(e) Is there a shared database or information platform?

Yes /No

(f) Is the database publicly available?

Yes /No

*If yes, please provide the web address:*

[Sava GIS <http://www.savagis.org/map>

Sava HIS <http://savahis.org/his;jsessionid=FD5DCC52E1891437B5CD08A4D72A00F0>

ICPDR data bases <https://www.icpdr.org/main/publications/databases>]

(g) What are the main difficulties and challenges to data exchange, if applicable?

Frequency of exchanges

- Timing of exchanges
- Comparability of data and information
- Limited spatial coverage
- Inadequate resources (technical and/or financial)

Other (*please describe*): [fill in]

Additional comments: [fill in]

(h) What are the main benefits of data exchange on the basin, sub-basin, part of a basin or group of basins? (*please describe*):

[Data exchange is primarily focused to support realisation of an integrated and sustainable a water management issues at regional and basin-wide scale. Data exchange improves knowledge sharing, reduce duplication of efforts, direct interested community toward the best available data and improve the overall quality of geospatial information at river basin level.]

7. Do the riparian States carry out joint monitoring in the transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

[Transnational Monitoring Network (TNMN) is established under the ICPDR and it contains information on Sava River Basin.]

(a) If yes, what does the joint monitoring cover?

	<i>Hydrological</i>	<i>Ecological</i>	<i>Chemical</i>
Border surface waters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in the entire basin	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters on the main watercourse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in part of the basin please describe	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
[Hydrological monitoring is organised for the whole Sava river basin under the ISRBC. Please see TNMN in Danube basin covers main rivers in Danube river basin. Please see <a href="https://www.icpdr.org/main/activities-projects/tnmn-transnational-monitoring-network">https://www.icpdr.org/main/activities-projects/tnmn-transnational-monitoring-network</a> ]			
Transboundary aquifer(s) (connected or unconnected)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aquifer(s) in the territory of one riparian hydraulically connected to a transboundary river or lake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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(b) If joint monitoring is carried out, how is this done?

National monitoring stations connected through a network or common stations

*Please describe:*

[Trans National Monitoring Network is established under the ICPDR. Several national monitoring stations are connected through TNMN of ICPDR.]

Joint and agreed methodologies

*Please describe:*

[Methodologies in line with EU Directives are developed for different parameters.]

Joint sampling

*Please describe:*

[ICPDR in cooperation with all countries conducts Joint Danube Survey every three years.]

Common monitoring network

*Please describe:*

[Trans National Monitoring Network, please see above.]

Common agreed parameters

*Please describe:*

[The TNMN monitoring network derives from national surface water monitoring networks and includes at present 101 monitoring stations with up to three sampling points across the Danube and its main tributaries. The minimum sampling frequency is 12 times per year for chemical determinants in water and twice a year for biological parameters.

The assessment of loads in the Danube River also provides estimates of the influx of polluting substances into the Black Sea, which is a vital information to support policy development. This special load assessment programme was started in 2000, with pollution loads calculated for:

- Biochemical Oxygen Demand (BOD)<sub>5</sub>;
- Inorganic nitrogen;
- Ortho-phosphate-phosphorus;
- Dissolved phosphorus;
- Total phosphorus;
- Suspended solids;
- And - on a discretionary basis – chlorides.

The assessment of loads into the Black Sea is based on a larger set of substances including heavy metals.

Chemical substances list is updated regularly.]

(c) Please describe the main achievements regarding joint monitoring, if any:

[Joint monitoring provides long term data series on chemical and biological parameters which results with improvement of our knowledge and

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understanding of the basins status. This is ground for planning of measures to be implemented.]

(d) Please describe any difficulties experienced with joint monitoring:

[Large number of institutions in all 14 countries of ICPDR are involved in joint monitoring activities. Organisation and timely implementation of agreed activities are always challenging activity.]

8. Do the riparian States carry out joint assessment of the transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, please provide the date of the last or only assessment, the frequency and scope (e.g., surface waters or groundwaters only, pollution sources, etc.) of the assessment, and assessment methodology applied:*

[Joint assessments of the Danube and Sava River Basins are done within the development of the River Basin Management Plans. Please see:

<https://www.icpdr.org/main/management-plans-danube-river-basin-published>

<http://www.savacommission.org/srbmp/en/draft>]

9. Have the riparian States agreed to use joint water quality standards?

Yes /No

*If yes, what standards have been applied, e.g. international or regional standards (please specify which), or have national standards of the riparian States been applied?*

[EU Water Framework Directive and its daughter Directives are key documents that set up water quality standards.]

10. What are the measures implemented to prevent or limit the transboundary impact of accidental pollution?

Notification and communication

Coordinated or joint early warning or alarm system for accidental water pollution

Other (*please list*): [fill in]

No measures

*If not, why not? What difficulties does your country face in putting in place such measures?:* [fill in]

11. What are the measures implemented to prevent or limit the transboundary impact of extreme weather events and climate change?

Notification and communication

Coordinated or joint alarm system for floods

Coordinated or joint alarm system for droughts

Joint climate change adaptation strategy

Joint disaster risk reduction strategy

Other (*please list*): [fill in]

No measures

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*If not, why not? What difficulties does your country face in putting in place such measures?: [fill in]*

12. Are procedures in place for mutual assistance in case of a critical situation?

Yes /No

*If yes, please provide a brief summary:*

[Article 11 of the Protocol on Flood Protection to Framework Agreement on Sava River Basin regulates issues related to Flood defence emergency situations and mutual assistance. Please see [http://www.savacommission.org/dms/docs/dokumenti/documents\\_publications/basic\\_documents/protocols/protocol\\_on\\_flood\\_protection\\_to\\_the\\_fasrb/protocol\\_on\\_flood\\_protection\\_to\\_the\\_fasrb.pdf](http://www.savacommission.org/dms/docs/dokumenti/documents_publications/basic_documents/protocols/protocol_on_flood_protection_to_the_fasrb/protocol_on_flood_protection_to_the_fasrb.pdf)

Article 17 of the Danube river Protection Convention regulates issue of mutual assistance. Please see [https://www.icpdr.org/flowpaper/app/#page=10.](https://www.icpdr.org/flowpaper/app/#page=10)]

13. Are the public or relevant stakeholders involved in transboundary water management in the basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, how? (please tick all applicable)*

Stakeholders have observer status in a joint body or mechanism

Stakeholders have an advisory role in the joint body

Stakeholders have a decision-making role in the joint body

*If yes, please specify the stakeholders for the joint body or mechanism:*  
[fill in]

Intergovernmental organizations

Private sectors organizations or associations

Water user groups or associations

Academic or research institutions

Other non-governmental organizations

General public

Other (please specify): [fill in]

Availability of information to the public

Consultation on planned measures or river basin management plans<sup>15</sup>

Public involvement

Other (please specify): [fill in]

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<sup>15</sup> Or, where applicable, aquifer management plans.

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**Please remember to complete section II for each of the transboundary basins, sub-basin, part of a basin or group of basins. Please also remember to attach copies of agreements or arrangements, if any.**



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**Name of the transboundary basin,-sub-basin, part of a basin or group of basins:**

**[Adriatic Sea Watershed Area including Trebisnjica River Basin District]**

List of the riparian States:

[Bosnia and Herzegovina, Croatia and Montenegro]

**In the case of an aquifer, what is the nature of the aquifer and its relation with the river or lake basin:**

Unconfined aquifer connected to a river or lake

Unconfined aquifer with no or limited relation with surface water

Confined aquifer connected to surface water

Confined aquifer with no or limited relation with surface water

Other

Please describe: [fill in]

Unknown

**Percentage of your country's territory within the basin, sub-basin, part of a basin or group of basins:**

[Adriatic Sea Watershed Area stretches over several countries: Italy, Slovenia, Croatia, Bosnia and Herzegovina, Montenegro and Albania. Size of the watershed area in BiH is 12.935 km<sup>2</sup>.]

1. Is there one or more transboundary (bilateral or multilateral) agreement(s) or arrangement(s) on this basin, sub-basin, part of a basin or group of basins?

One or more agreements or arrangements exist and are in force

Agreement or arrangement developed but not in force

Agreement or arrangement developed, but not in force for all riparians

*Please insert the name of the agreement(s) or arrangement(s)*

[1. Agreement between Government of Bosnia and Herzegovina and Government of Republic of Croatia on regulation of water management relations,

2. Agreement between the Council of Ministers of BiH and the Government of Croatia on joint financing, maintenance and operation of the regional waste water system Komarna-Neum-Mljet channel,

3. Agreement between the Council of Ministers of BiH and the Government of Croatia on rights and obligations for usage of public water supply systems crossing across state's borders

4. Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona convention)]

Agreement or arrangement is under development

No agreement or arrangement

*If there is no agreement or arrangement or it is not in force, please explain briefly why not and provide information on any plans to address the situation:*

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[Priority of the Council of Ministers of Bosnia and Herzegovina is to sign bilateral agreement with Montenegro on transboundary water cooperation.

Initial draft agreements between Bosnia and Herzegovina and Montenegro were exchanged, however further development of the agreement is not progressing due to opened issues related to usage of the hydropower potential on the Trebisnjica river.]

**If there is no agreement or arrangement and no joint body or mechanism for the transboundary basin, sub-basin, part of a basin or group of basins then jump to question 4; if there is no agreement or arrangement, but a joint body or mechanism then go to question 3.**

**Questions 2 and 3 to be completed for each bilateral or multilateral agreement or arrangement in force in the transboundary basin, sub-basin, part of a basin or group of basins.**

2. (a) Does this agreement or arrangement specify the area subject to cooperation?

Yes /No

If yes, does it cover the entire basin or group of basins and all riparian States?

Yes /No

Additional explanations?

[Bilateral Agreement between Government of Bosnia and Herzegovina and Government of Republic of Croatia on regulation of water management relations covers parts of the Sava River Basin and Adriatic Sea Watershed Area including Trebisnjica River Basin District shared by Bosnia and Herzegovina and Croatia.

Part of the Adriatic Sea Watershed Area including Trebisnjica River Basin District shared by Bosnia and Herzegovina and Montenegro is not yet covered by the agreement.]

Or, if the agreement or arrangement relates to a sub-basin, does it cover the entire sub-basin?

Yes /No

Additional explanations?

[Please see previous respond.]

Which States (including your own) are bound by the agreement or arrangement?  
(Please list):

[Bosnia and Herzegovina and Croatia.]

(b) If the agreement or arrangement relates to a river or lake basin or sub-basin, does it also cover aquifers?

Yes /No

If yes, please list the aquifers covered by the agreement or arrangement:

[Bilateral cooperation with Croatia on the Adriatic Sea Watershed Area including Trebisnjica River Basin District covers following aquifers: Posušje-Imotski, Tihaljina, Prud, Neretva lijeva obala, Aluvij Capljina, Zavrle, Duboka ljuta, Ombla, Zaton, Doli-Slano, Bistrina, Butina, Vrgoracka banja, Lijeva obala rijeke Cetine, Gornji tok rijeke Krke, Konavoska ljuta.]

(c) What is the sectoral scope of the agreement or arrangement?

- 
- All water uses
  - A single water use or sector
  - Several water uses or sectors

*If one or several water uses or sectors, please list (check as appropriate):*

**Water uses or sectors**

- Industry
- Agriculture
- Transport (e.g., navigation)
- Households
- Energy: hydropower and other energy types
- Fisheries
- Tourism
- Nature protection
- Other (*please list*): [fill in]

(d) What topics or subjects of cooperation are included in the agreement or arrangement?

**Procedural and institutional issues**

- Dispute and conflict prevention and resolution
- Institutional cooperation (joint bodies)
- Consultation on planned measures
- Mutual assistance

**Topics of cooperation**

- Joint vision and management objectives
- Joint significant water management issues
- Navigation
- Human health
- Environmental protection (ecosystem)
- Water quality
- Water quantity or allocation
- Cooperation in addressing floods
- Cooperation in addressing droughts
- Climate change adaptation

**Monitoring and exchange**

- Joint assessments
- Data collection and exchange
- Joint monitoring

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Maintenance of joint pollution inventories

Elaboration of joint water quality objectives

Common early warning and alarm procedures

Exchange of experience between riparian States

Exchange of information on planned measures

**Joint planning and management**

Development of joint regulations on specific topics

Development of international or joint river, lake or aquifer basin management or action plans

Management of shared infrastructure

Development of shared infrastructure

Other (*please list*): [fill in]

(e) What are the main difficulties and challenges that your country faces with the agreement or arrangement and its implementation, if any?

Aligning implementation of agreement or arrangement with national laws, policies and programmes

Aligning implementation of agreement or arrangement with regional laws, policies and programmes

Lack of financial resources

Insufficient human capacity

Insufficient technical capacity

Tense diplomatic relations

Non-participation of certain riparian countries in the agreement

No significant difficulties

Other (*please describe*): [fill in]

(f) What are the main achievements in implementing the agreement or arrangement and what were the keys to achieving such success?

[Joint Commission for Water Management Cooperation was established and it is fully operational. Cooperation between institutions in both countries is significantly improved, sub-commissions for the Black Sea Watershed Area and Adriatic Sea Watershed Area were established, joint projects have been created and implemented, cooperation on the harmonisation of the legal framework in both countries is taking place, such as harmonisation of the sanitary protection zones, cooperation on the infrastructure developments of transboundary relevance is taking place, additional agreements have been developed and in forced<sup>16</sup>, operation and maintenance of joint infrastructure is regularly monitored, etc.]

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<sup>16</sup> Please see respond on the list of the agreements

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(g) Please attach a copy of the agreement or arrangement or provide the web address of the document (*please attach document or insert web address, if applicable*):

[Bilateral Agreement between Government of Bosnia and Herzegovina and Government of Republic of Croatia on regulation of water management relations is attached to this Report as Annex 1.

Barcelona convention is available on the following link:  
[http://wedocs.unep.org/bitstream/handle/20.500.11822/7096/Consolidated\\_BC95\\_Eng.pdf?sequence=1&isAllowed=y](http://wedocs.unep.org/bitstream/handle/20.500.11822/7096/Consolidated_BC95_Eng.pdf?sequence=1&isAllowed=y)

3. Is your country a member of any joint body or mechanism for this agreement or arrangement?

Yes /No

*If no, why not? (please explain):* [fill in]

**Where there is a joint body or mechanism**

(a) If there is a joint body or mechanism, which kind of joint body or mechanism (*please tick one*)?

Plenipotentiaries

Bilateral commission

Basin or similar commission

Expert group meeting or meeting of national focal points

Other (*please describe*): [fill in]

(b) Does the joint body or mechanism cover the entire transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

(c) Which States (including your own) are members of the joint body or mechanism? (*Please list*):

[Bosnia and Herzegovina and Croatia are members of Joint Commission for Water Management Cooperation between Bosnia and Herzegovina and Croatia.

In line with Article 4 of the Barcelona Convention the Mediterranean Commission on Sustainable Development (MCSD) was established as an advisory body to the Contracting Parties, to assist them in their efforts to integrate environmental issues in their socioeconomic programmes and, to promote sustainable development policies in the Mediterranean region. The MCSD is unique in its composition which includes, on an equal footing, government representatives, local authorities, socioeconomic actors, IGOs, and NGOs.]

(d) Are there any riparian States that are not members of the joint body or mechanism? (*please list*):

[Yes. Montenegro is not involved in bilateral cooperation between Bosnia and Herzegovina and Croatia.]

(e) If not all riparian States are members of the joint body or mechanism how does the joint body or mechanism cooperate with them?

No cooperation

---

They have observer status

Other (*please describe*):

[fill in]

(f) Does the joint body or mechanism have any of the following features (*please tick the ones applicable*)?

A secretariat

*If the secretariat is a permanent one, is it a joint secretariat or does each country host its own secretariat? (Please describe):*

[According to Article 5. of the bilateral agreement, Joint Commission for Water Management Cooperation of Bosnia and Herzegovina and Republic of Croatia does not have Permanent Secretariat. Institutions in both countries are responsible to ensure administrative assistance to Commission and deal with all other relevant issues.]

A subsidiary body or bodies

*Please list (e.g., working groups on specific topics):*

[Joint Commission for Water Management Cooperation of Bosnia and Herzegovina and Republic of Croatia has mandate to establish permanent and ad-hoc expert groups. Following this three permanent subsidiary bodies were established: 1) Sub-commission for the Black Sea Watershed Area (Sava River Basin), 2) Sub-Commission for Adriatic Sea Watershed Area and 3) Sub-Commission for Regional sewerage system Komarna-Neum-Mljet channel.]

Other features (*please list*): [fill in]

(g) What are the tasks and activities of this joint body or mechanism?<sup>17</sup>

Identification of pollution sources

Data collection and exchange

Joint monitoring

Maintenance of joint pollution inventories

Setting emission limits

Elaboration of joint water quality objectives

Management and prevention of flood or drought risks

Preparedness for extreme events, e.g., common early warning and alarm procedures

Surveillance and early warning of water related disease

Water allocation and/or flow regulation

Policy development

Control of implementation

---

<sup>17</sup> This may include tasks according to the agreement or tasks added by the joint body, or its subsidiaries. Both tasks which joint bodies coordinate and tasks which they implement should be included.

- 
- Exchange of experience between riparian States
  - Exchange of information on existing and planned uses of water and related installations
  - Settling of differences and conflicts
  - Consultations on planned measures
  - Exchange of information on best available technology
  - Participation in transboundary EIA
  - Development of river, lake or aquifer basin management or action plans
  - Management of shared infrastructure
  - Addressing hydromorphological alterations
  - Climate change adaptation
  - Joint communication strategy
  - Basin-wide or joint public participation and consultation of, for example, basin management plans
  - Joint resources to support transboundary cooperation
  - Capacity-building

Any other tasks (*please list*): [fill in]

(h) What are the main difficulties and challenges that your country faces with the operation of the joint body or mechanism, if any?

- Governance issues

*Please describe, if any:*

[Having in mid specific constitutional organisation of BiH, and distribution of the competencies between different levels of authorities in BiH (State and Entities) representatives of all respective institutions has to be involved in the cooperation activities. Thus, it is demanding task to provide adequate representation as well as to establish efficient decision-making process.]

- Unexpected planning delays

*Please describe, if any:* [fill in]

- Lack of resources

*Please describe, if true:*

[Due to lack of human resources within the institutions in BiH implementation of the international obligations are additional burden for the institutions. In addition to this, lack of financial resources creates challenging environment for the implementation of international obligations, agreed measures, new infrastructure development etc.]

- Lack of mechanism for implementing measures

*Please describe, if true:* [fill in]

- Lack of effective measures

*Please describe, if true:* [fill in]

---

Unexpected extreme events

*Please describe, if any:* [fill in]

Lack of information and reliable forecasts

*Please describe, if any:*

[In same cases where there were/is no continuous monitoring (hydrometeorological, hydromorphological, ground water, climate change etc.) information are missing.]

Others (*please list and describe, as appropriate*): [fill in]

(i) Does the joint body or mechanism, or its subsidiary bodies meet regularly?

Yes /No

If yes, how frequently does it meet?

More than once per year

Once per year

Less than once per year

(j) What are the main achievements with regards to the joint body or mechanism?

[Cooperation between institutions in both countries are improved, joint projects have been created and implemented, cooperation on the harmonisation of the legal framework in both countries is taking place, cooperation on the infrastructure developments of transboundary relevance is taking place, additional agreements on water supply and sanitation have been developed and in forced.]

(k) Did the joint body or mechanism ever invite a non-riparian coastal State to cooperate?

Yes /No

*If yes, please give details. If no, why not, e.g. are the relevant coastal States also riparian States and therefore already members of the joint body or mechanism?*

[Bosnia and Herzegovina and Croatia are costal countries. Since this is bilateral format of cooperation no other costal countries were invited to cooperate.]

4. Have joint objectives, a common strategy, a joint or coordinated management plan or action plan been agreed for the basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, please provide further details:*

[During the development of the river basin management plans respective authorities in both countries jointly, throughout the same project developed draft of the river basin management plans in Bosnia and Herzegovina and Croatia. Joint objectives and Significant Water Management Issues are jointly agreed.

One of the jointly developed documents is "Framework for Neretva and Trebisnjica River Basin Management in BiH and Croatia".

Joint Commission for Water Management Cooperation of Bosnia and Herzegovina and Republic of Croatia endorsed results of the joint activities.]



- 
5. How is the transboundary basin,–sub-basin, part of a basins or group of basins protected, including the protection of ecosystems, in the context of sustainable and rational water use?
- Regulation of urbanization, deforestation, and sand and gravel extraction.
- Environmental flow norms, including consideration of levels and seasonality
- Water quality protection, e.g. nitrates, pesticides, faecal coliforms, heavy metals
- Water-related species and habitats protection
- Other measures (*please describe*): [fill in]
6. (a) Does your country regularly exchange information and data with other riparian States in the basin, sub-basin, part of a basin or group of basins?  
Yes /No
- (b) If yes, how often:
- More than once per year
- Once per year
- Less than once per year
- (c) Please describe how information is exchanged (e.g. in connection with meetings of joint bodies):
- [Joint Commission for Water Management Cooperation of Bosnia and Herzegovina and Republic of Croatia as well as relevant subsidiary bodies prepare and exchange data according to agreed agendas and dynamic of cooperation. The most intensive data exchange campaign is during the development of river basin management plans.]
- (d) If yes, on what subjects are information and data exchanged?
- Environmental conditions
- Research activities and application of best available techniques
- Emission monitoring data
- Planned measures taken to prevent, control or reduce transboundary impacts
- Point source pollution sources
- Diffuse pollution sources
- Existing hydromorphological alterations (dams, etc.)
- Flows or water levels (including groundwater levels)
- Water abstractions
- Climatological information
- Future planned measures with transboundary impacts, such as infrastructure development
- Other subjects (*please list*): [fill in]

---

Other comments, e.g. spatial coverage of data and information exchange: [fill in]

(e) Is there a shared database or information platform?

Yes /No

(f) Is the database publicly available?

Yes /No

*If yes, please provide the web address:*

[fill in]

(g) What are the main difficulties and challenges to data exchange, if applicable?

Frequency of exchanges

Timing of exchanges

Comparability of data and information

Limited spatial coverage

Inadequate resources (technical and/or financial)

Other (*please describe*): [fill in]

Additional comments: [fill in]

(h) What are the main benefits of data exchange on the basin, sub-basin, part of a basin or group of basins? (*please describe*):

[Following obligations of the bilateral Agreement and Rulebook on operation, Bilateral Commission is responsible to analyse issues related to joint flood protection, water protection and sea protection from pollution, water usage and other water management issues. In order to perform its duties and responsibilities Bilateral Commission need to exchange relevant and available data and other information.]

7. Do the riparian States carry out joint monitoring in the transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

[fill in]

(a) If yes, what does the joint monitoring cover?

---

	<i>Hydrological</i>	<i>Ecological</i>	<i>Chemical</i>
Border surface waters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in the entire basin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters on the main watercourse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in part of the basin please describe [fill in]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transboundary aquifer(s) (connected or unconnected)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	<i>Hydrological</i>	<i>Ecological</i>	<i>Chemical</i>
Aquifer(s) in the territory of one riparian hydraulically connected to a transboundary river or lake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(b) If joint monitoring is carried out, how is this done?

National monitoring stations connected through a network or common stations

*Please describe:*

[fill in]

Joint and agreed methodologies

*Please describe:*

[fill in]

Joint sampling

*Please describe:*

[fill in]

Common monitoring network

*Please describe:*

[fill in]

Common agreed parameters

*Please describe:*

[fill in]

(c) Please describe the main achievements regarding joint monitoring, if any:

[fill in]

(d) Please describe any difficulties experienced with joint monitoring:

[fill in]

8. Do the riparian States carry out joint assessment of the transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, please provide the date of the last or only assessment, the frequency and scope (e.g., surface waters or groundwaters only, pollution sources, etc.) of the assessment, and assessment methodology applied:*

[BiH and Croatia implemented GEF financed Project Neretva and Trebišnjica in period of time 2008-2014. One of the components of the Project was related to river basin management planning. Following legal requirements in both countries as well as requirements of EU Water Framework Directive joint assessment (Characterisation Reports) of the transboundary basin was finalized. Based on the joint assessment coordinated River Basin Management Plans were developed and adopted.

In the period of time 2010-2014 four countries (Croatia, BiH, Montenegro and Albania) jointly implemented project “Protection and Sustainable Use of the Dinaric Karst Transboundary Aquifer System – DIKTAS”. Aim of the project was to improve the management of karst groundwaters contained in the Dinaric Karst and shared by four countries. Throughout this project Transboundary Diagnostic Analysis was developed. Based on TDA, Strategic Action Program was developed and accepted by the countries.]

9. Have the riparian States agreed to use joint water quality standards?

Yes /No

*If yes, what standards have been applied, e.g. international or regional standards (please specify which), or have national standards of the riparian States been applied?*

[EU Water Framework Directive and its daughter Directives are key documents that set up water quality standards.]

10. What are the measures implemented to prevent or limit the transboundary impact of accidental pollution?

Notification and communication

Coordinated or joint early warning or alarm system for accidental water pollution

Other (*please list*): [fill in]

No measures

*If not, why not? What difficulties does your country face in putting in place such measures?:* [fill in]

11. What are the measures implemented to prevent or limit the transboundary impact of extreme weather events and climate change?

Notification and communication

Coordinated or joint alarm system for floods

Coordinated or joint alarm system for droughts

Joint climate change adaptation strategy

Joint disaster risk reduction strategy

Other (*please list*): [fill in]

No measures

*If not, why not? What difficulties does your country face in putting in place such measures?:* [fill in]

12. Are procedures in place for mutual assistance in case of a critical situation?

Yes /No

*If yes, please provide a brief summary:*

[fill in]

13. Are the public or relevant stakeholders involved in transboundary water management in the basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, how? (please tick all applicable)*

- 
- Stakeholders have observer status in a joint body or mechanism
- Stakeholders have an advisory role in the joint body
- Stakeholders have a decision-making role in the joint body
- If yes, please specify the stakeholders for the joint body or mechanism:*  
[fill in]
- Intergovernmental organizations
- Private sectors organizations or associations
- Water user groups or associations
- Academic or research institutions
- Other non-governmental organizations
- General public
- Other (please specify): [fill in]
- Availability of information to the public
- Consultation on planned measures or river basin management plans<sup>18</sup>
- Public involvement
- Other (please specify): [fill in]

**Please remember to complete section II for each of the transboundary basins, sub-basin, part of a basin or group of basins. Please also remember to attach copies of agreements or arrangements, if any.**

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<sup>18</sup> Or, where applicable, aquifer management plans.

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### III. Water management at the national level

In this section, you are requested to provide general information on water management at the national level as it relates to transboundary waters. Information on specific transboundary basins, sub-basins, part of basins and groups of basins, should be presented in section II and not repeated here.

1. (a) Does your country's national legislation, policies, action plans and strategies refer to measures to prevent, control and reduce any transboundary impact?

Yes /No

*If yes, please briefly describe the main national laws, policies, action plans and strategies*

[By its Constitution, Bosnia and Herzegovina (BiH) is organised as a decentralised country. It consists of two Entities: Federation of Bosnia and Herzegovina (FBiH) covers 51% of BiH territory, Republic of Srpska (RS) covers 49% of BiH territory, and special administrative unit Brcko District of Bosnia and Herzegovina (BD BiH). FBiH is divided into 10 cantons and cantons are divided into 79 municipalities, while RS is divided into 64 municipalities.

Both entities FBiH and RS as well as BD BiH has full power and jurisdiction on Water Management. Thus, comprehensive legal and institutional framework was developed at the level of both entities and BD BiH. In the field of water management, State level institutions are responsible for the coordination of activities among different levels of authorities within the country and for the international cooperation. Implementation of international obligations is responsibility of the State level institutions with full involvement of respective institutions of FBiH and RS entities and BD BiH.

State level Law on Ministries and Other Administrative Bodies of Bosnia and Herzegovina<sup>19</sup> Law on Waters of FBiH<sup>20</sup>, Law on Waters of RS<sup>21</sup> and Law on Waters of BD BiH<sup>22</sup>.

In addition to main above mentioned laws set of bylaws is adopted to enable more efficient implementation of laws

Following are the Action plans and strategies in water sector in Bosnia and Herzegovina:

1. Action Plan for Flood Protection and River Basin Management in BiH,
2. Climate Change Adaptation and Low Carbon Development Strategy of BiH,
3. Environmental Approximation Strategy to EU *acquis communautaire* of BiH,
4. Water Management Strategy of FBiH 2010-2022,
5. Program of Approximation of environmental protection legal framework to EU *acquis communautaire* in FBiH,
6. Integral Water Management Strategy of RS 2015-2024,

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<sup>19</sup> Official Gazette (OG) of BiH 42/03, 26/04, 42/04, 45/06, 88/07, 35/09, 59/09, 103/09

<sup>20</sup> OG FBiH 70/06

<sup>21</sup> OG RS 50/06, 92/09, 121/12, 74/17

<sup>22</sup> OG RS 10/98

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7. Program of Approximation of environmental protection legal framework to EU *acquis communautaire* in RS,

8. Environmental Approximation Strategy for BD BiH.]

(b) Does your country's legislation provide for the following principles?

Precautionary principle Yes /No

Polluter pays principle Yes /No

Sustainable development Yes /No

User pays principle Yes /No

If yes, please briefly describe how these principles are implemented at the national level:

[Following constitutional organisation of the country implementation of above listed principles is integrated in day-to-day operation of the respective institutions at all levels of authorities. Institutional framework is fully established, licensing regime and control and inspection mechanism are developed.]

(c) Does your country have a national licensing or permitting system for wastewater discharges and other point source pollution? (e.g., in industry, mining, energy, municipal, wastewater management or other sectors)?

Yes /No

*If yes, for which sectors?*

Industry

Mining

Energy

Municipal

Livestock raising

Aquaculture

Other (please list): [fill in]

*Please briefly describe the licensing or permitting system, indicating whether the system provides for setting emission limits based on best available technology?*

*If yes, for which sectors? (please list):*

[Water Permits are issued for all activities including discharges of sanitary and industrial wastewaters into surface waters. Water Permit defines conditions and monitoring of these discharges. Emission limits are determined based on BAT.

Wastewater discharges in groundwaters are forbidden by the laws.]

*If not, please explain why not (giving the most important reasons) or provide information if there are plans to introduce a licensing or permitting system: [fill in]*

(d) Are the authorized discharges monitored and controlled?

Yes /No

*If yes, how? (Please tick the ones applicable):*

Monitoring of discharges

- 
- Monitoring of physical and chemical impacts on water
  - Monitoring of ecological impacts on water
  - Conditions on permits
  - Inspectorate

Other means (*please list*): [fill in]

*If your country does not have a discharge monitoring system, please explain why not or provide information if there are plans to introduce a discharge monitoring system: [fill in]*

(e) What are the main measures which your country takes to reduce diffuse sources of water pollution on transboundary waters (e.g., from agriculture, transport, forestry or aquaculture)? The measures listed below relate to agriculture, but other sectors may be more significant. Please be sure to include these under “others”:

**Legislative measures**

- Norm for uses of fertilizers
- Norms for uses of manure
- Permitting system
- Bans on or norms for use of pesticides
- Others (*please list*): [fill in]

**Economic and financial measures**

- Monetary incentives
- Environmental taxes (such as fertilizer taxes)
- Others (*please list*): [fill in]

**Agricultural extension services**

**Technical measures**

*Source control measures*

- Crop rotation
- Tillage control
- Winter cover crops
- Others (*please list*): [fill in]

*Other measures*

- Buffer/filter strips
- Wetland reconstruction
- Sedimentation traps
- Chemical measures
- Others (*please list*): [fill in]

**Other types of measures**

*If yes, please list:* [fill in]



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(f) What are the main measures which your country takes to enhance water resources allocation and use efficiency?

*Please tick as appropriate (not all might be relevant)*

- |   |                                     |
|---|-------------------------------------|
| A regulatory system regarding water abstraction | <input checked="" type="checkbox"/> |
| Monitoring and control of abstractions          | <input checked="" type="checkbox"/> |
| Water rights are defined                        | <input checked="" type="checkbox"/> |
| Water allocation priorities are listed          | <input checked="" type="checkbox"/> |
| Water-saving technologies                       | <input checked="" type="checkbox"/> |
| Advanced irrigation techniques                  | <input checked="" type="checkbox"/> |
| Demand management activities                    | <input checked="" type="checkbox"/> |
| Other means (please list)                       | <input type="checkbox"/>            |

(g) Does your country apply the ecosystems approach?

Yes /No

*If yes, please describe how:*

[Following requirements of Water Laws, River Basin Management Plans has to be developed in line with EU Water Framework Directive. During their preparation status of water bodies has to be determined based on respective ecological and environmental parameters.]

(h) Does your country take specific measures to prevent the pollution of groundwaters?

Yes /No

*If yes, please briefly describe the most important measures:*

[The most important measures are:

1. Direct discharges of wastewaters into groundwater are forbidden by the Water Laws and relevant bylaws;
2. Sanitary Protection Zones, protection measures, method of determining, maintenance and marking for water springs used for public water supply are determined.]

2. Do your national laws require transboundary environmental impact assessment (EIA)?

Yes /No

*If yes, please briefly describe the legislative basis, and any related implementing procedures.*

[EIA requirements from Espoo Convention and EU EIA Directive are transposed into Laws on environmental protection at respective levels of authorities in Bosnia and Herzegovina, FBiH<sup>23</sup>, RS<sup>24</sup> and BD<sup>25</sup>. Application o EIA procedure, particularly

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<sup>23</sup> OG FBiH 33/03, 38/09

<sup>24</sup> OG RS 71/12, 79/15

<sup>25</sup> OG BD BiH 24/04, 19/07, 1/05, 9/09

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related to the projects of transboundary relevance is commonly implemented in Bosnia and Herzegovina.]

*If not, do other measures provide for transboundary EIA? [fill in]*

#### IV. Final questions

1. What are the main challenges your country faces in cooperating on transboundary waters?

- |  |                                     |
|--|-------------------------------------|
| Differences between national administrative and legal frameworks | <input checked="" type="checkbox"/> |
| Lack of relevant data and information                            | <input checked="" type="checkbox"/> |
| Difficulties in data and information exchange                    | <input checked="" type="checkbox"/> |
| Sectoral fragmentation at the national level                     | <input checked="" type="checkbox"/> |
| Language barrier   | <input type="checkbox"/>            |
| Resource constraints   | <input checked="" type="checkbox"/> |
| Environmental pressures, e.g. extreme events                     | <input type="checkbox"/>            |
| Sovereignty concerns   | <input type="checkbox"/>            |

Please list other challenges and/or provide further details:

[Economic issues not directly linked to water management such as unresolved compensations for usage of hydropower potential at transboundary watercourses, and still not agreed interstate boundaries.]

2. What have been the main achievements in-cooperating on transboundary waters?

- |   |                                     |
|---|-------------------------------------|
| Improved water management                                   | <input checked="" type="checkbox"/> |
| Enhanced regional integration, i.e. beyond water            | <input type="checkbox"/>            |
| Adoption of cooperative arrangements                        | <input checked="" type="checkbox"/> |
| Adoption of joint plans and programmes                      | <input checked="" type="checkbox"/> |
| Long-lasting and sustained cooperation                      | <input checked="" type="checkbox"/> |
| Financial support for joint activities                      | <input checked="" type="checkbox"/> |
| Stronger political will for transboundary water cooperation | <input checked="" type="checkbox"/> |
| Better knowledge and understanding                          | <input checked="" type="checkbox"/> |
| Dispute avoidance   | <input checked="" type="checkbox"/> |
| Stakeholder engagement                                      | <input checked="" type="checkbox"/> |

Please list other achievements, keys to achieving success, and/or provide concrete examples: [fill in]

3. Please indicate which institutions were consulted during the completion of the questionnaire

- |                                     |                                     |
|-------------------------------------|-------------------------------------|
| Joint body or mechanism             | <input checked="" type="checkbox"/> |
| Other riparian or aquifer countries | <input checked="" type="checkbox"/> |
| National water management authority | <input checked="" type="checkbox"/> |
| Environment agency/ authority       | <input type="checkbox"/>            |

- 
- |   |                                     |
|---|-------------------------------------|
| Basin authority (national)  | <input checked="" type="checkbox"/> |
| Local or provincial government  | <input type="checkbox"/>            |
| Geological survey (national)  | <input type="checkbox"/>            |
| Non-water specific ministries, e.g. foreign affairs, finance, forestry and energy | <input type="checkbox"/>            |
| Civil society organizations   | <input type="checkbox"/>            |
| Water user associations   | <input type="checkbox"/>            |
| Private sector  | <input type="checkbox"/>            |

Other (please list): [fill in]

Please briefly describe the process by which the questionnaire was completed:

[Focal Point of BiH to Water Convention (FP) on behalf of Ministry of Foreign Trade and Economic Relations initiated communication to other respective institutions in Bosnia and Herzegovina responsible for water management, requesting from them nomination of their representatives for finalisation of the questionnaire. Institutions involved are as follows:

- Ministry of Foreign Trade and Economic Relations of BiH,
- Federal Ministry for Agriculture, Water Management and Forestry,
- Ministry of Agriculture, Forestry and Water Management of RS,
- Government of BD of BiH,
- Sava River Watershed Agency,
- Adriatic Sea Watershed Agency,
- Public Institution "Vode Srpske".

FP filled in questionnaire and then circulated it among nominated representatives for comments and amendments.

Questionnaire was finalised by FP after consultation with other riparian states.]

4. If you have any other comments please add them here (*insert comments*): [fill in]
5. Name and contact details of the person(s) who filled out the questionnaire (*please insert*):

[Following persons gave its contribution to preparation of this Report:

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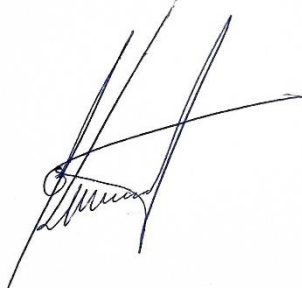
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15. Ms. Jelena Vicanovic  
Pubic Institution "Vode Srpske"  
Tel. 00387 55 221 392  
Email: jvicanovic@vodors.org]

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Date: [25 September 2020]

Signature: [Bosko Kenjic, Head of Water Resources Department and  
Focal Point of BiH to Water Convention]



Thank you very much for taking the time to complete this report.

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Annex 1. Agreement between Government of Bosnia and Herzegovina and Government of Republic of Croatia on regulation of water management relations

Annex 2.

- Danube River Basin District Overview Map
- Sava River Basin Overview Map
- Sava River Basin in BiH Map
- Transboundary Aquifers in the Sava River Basin Map
- Adriatic Sea Watershed Area including Trebisnjica River Basin District Map
- Transboundary Aquifers in the Adriatic Sea Watershed Area including Trebisnjica River Basin District Map





**LEGEND**

- Danube River Basin District (DRBD)
- Danube River
- Tributaries (with catchment area > 4,000 km<sup>2</sup>)
- Lake water bodies (with surface area > 100 km<sup>2</sup>)
- Transitional water bodies
- Coastal water bodies
- Canals

Cities:

- 100,000 - 250,000 inhabitants
- 250,000 - 1,000,000 inhabitants
- > 1,000,000 inhabitants

0 50 100 200 km

Scale: 1 : 4,500,000

(Scale 1: 6,000,000 in A4 landscape paper format)

🚩 Competent authority

— National borders

This ICPRD product is based on national information provided by the Contracting Parties to the ICPRD (AT, BA, BG, CZ, DE, HR, HU, ME, MD, RO, RS, SI, SK, UA) and CH. EuroGlobalMap data from EuroGeographics was used for all national borders except for AL, BA, ME where the data from the ESRI World Countries was used; Shuttle Radar Topography Mission (SRTM) from USGS Seamless Data Distribution System was used as elevation data layer; data from the European Commission (Joint Research Center) was used for the outer border of the DRBD of AL, IT, ME and PL.



# Sava River Basin: Overview

MAP 1



**LEGEND**

- Sava River Basin
- Sava River
- Tributary (with catchment area > 1,000 km<sup>2</sup>)
- State border

**City**

- 10,001 - 50,000
- 50,001 - 100,000
- 100,001 - 250,000
- 250,001 - 500,000
- 500,001 - 1,000,000
- > 1,000,000
- Capital

**Scale: 1:1,800,000**

0 25 50 100 Km

(Scale 1:2,500,000 in A4 landscape paper format)

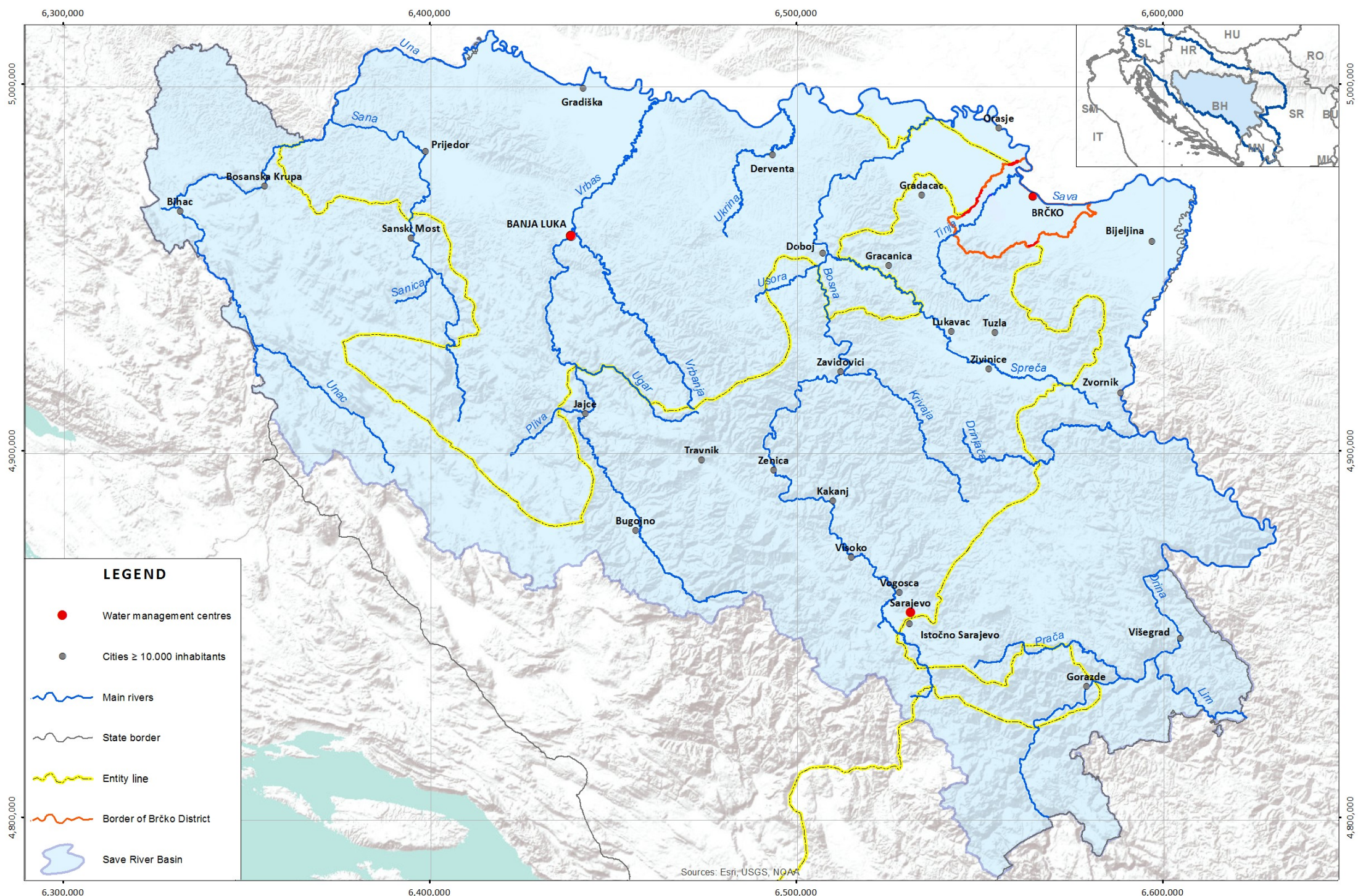
Co-ordinate system: ETRS 1989 LAEA  
Projection: Lambert Azimuthal Equal Area

This product is based on national information provided by the Parties to the FASRB (SI, HR, BA, RS) and ME. Shuttle Radar Topography Mission (SRTM-3) from USGS Seamless Data Distribution System was used as topographic layer. The boundaries and names shown and designations used on this map do not imply official endorsement or acceptance by the ISRBC.

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**Capacity Building in Water Sector in BiH**  
 Project financed by EU IPA Programme for 2011.  
 Project implemented by consortium Eptisa (ES) and Hydroplan (BA)

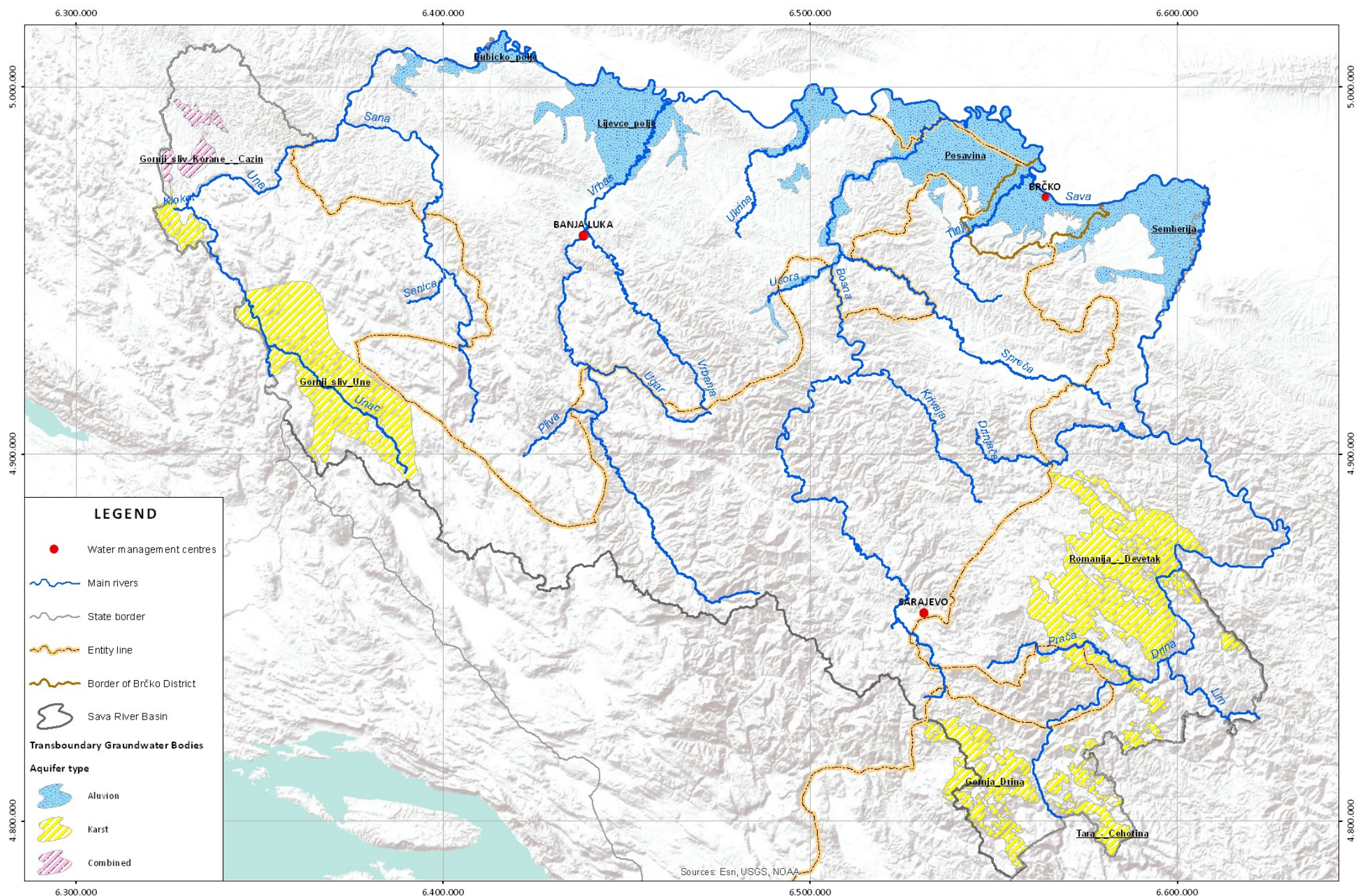
**Map 1: Sava River Basins in Bosnia and Herzegovina**

**Scale 1:900.000**

0 5 10 20 30 40 Kilometers

(Landscape format A4, scale 1:2.500.000)





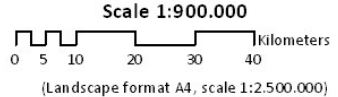
Sources: Esri, USGS, NOAA



**Capacity Building in Water Sector in BiH**

Project financed by EU IPA Programme for 2011.  
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**Transboundary groundwater bodies in Sava River Basin in Bosnia and Herzegovina**







## Legend

- Cities
- Water management centres
- ~ Main rivers
- ~ State border
- ~ Entity line

### Adriatic Sea Watershed Area including Trebisnjica River Basin District

- Adriatic Sea Watershed Area in FBiH
- Trebisnjica River Basin District in RS

Sources: Esri, USGS, NOAA





### Legend

- Cities
- Water management centres
- Main rivers
- Entity line
- State border
- Transboundary groundwater bodies
- Adriatic Sea Watershed Area

Sources: Esri, USGS, NOAA