Reporting on global SDG indicator 6.5.2

TEMPLATE of the second cycle for reporting

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: [The Kingdom of Saudi Arabia]
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.ª

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 (km²));

(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)

Note: there is no share transboundary river or lake between KSA and neighboring countries.

<table>
<thead>
<tr>
<th>Name of transboundary river or lake basin/sub-basin</th>
<th>It is a basin or a sub-basin? a</th>
<th>Countries shared with</th>
<th>Surface area of the basin/sub-basin (in km²) within the territory of the country</th>
<th>Map and/or GIS shapefile provided (yes/no)</th>
<th>Covered by an arrangement entirely, partly, no)</th>
<th>Criterion 1 applied (yes/no)</th>
<th>Criterion 2 applied (yes/no)</th>
<th>Criterion 3 applied (yes/no)</th>
<th>Criterion 4 applied (yes/no)</th>
<th>Surface area of the basin/sub-basin (in km²) covered by an operational arrangement within the territory of the country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total surface area of transboundary basins/sub-basins of rivers and lakes covered by operational arrangements within the territory of the country (in km²)</td>
<td>(A) Total surface area of transboundary basins/sub-basins of rivers and lakes covered by operational arrangements within the territory of the country (in km²)</td>
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</tr>
<tr>
<td>(B) Total surface area of transboundary basins/sub-basins of rivers and lakes covered by operational arrangements within the territory of the country (in km²)</td>
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</tr>
</tbody>
</table>

b List sub-basins after the basin they belong to.
<table>
<thead>
<tr>
<th>Name of the transboundary aquifer</th>
<th>Countries shared with</th>
<th>Surface area of the aquifer(^c) (in km(^2)) within the territory of the country</th>
<th>Map and/or GIS shapefile provided (yes/no)</th>
<th>Covered by an aquifer specific arrangement (entirely, partly, no) (Ref. to questions in sect. II)</th>
<th>Covered within an arrangement not specific to the aquifer(^d) (entirely, partly, no) (Ref. to questions in sect. II)</th>
<th>Criterion 1 applied (yes/no) (Ref. to questions in sect. II)</th>
<th>Criterion 2 applied (yes/no) (Ref. to questions in sect. II)</th>
<th>Criterion 3 applied (yes/no) (Ref. to questions in sect. II)</th>
<th>Criterion 4 applied (yes/no) (Ref. to questions in sect. II)</th>
<th>Surface area of the aquifer (in km(^2)) covered by an operational arrangement within the territory of the country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saq aquifer</td>
<td>Jordan</td>
<td>394133</td>
<td>Yes/Map</td>
<td>Yes (partly)</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>1334.45</td>
</tr>
<tr>
<td>Neogene aquifer</td>
<td>Iraq, Kuwait, The United Arab Emirates, Oman, and Yemen</td>
<td>702207</td>
<td>Yes/Map</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>702207</td>
</tr>
<tr>
<td>Dammam aquifer</td>
<td>Iraq, Kuwait, The United Arab Emirates, Brhain, Qatar, Oman, and Yemen</td>
<td>499070</td>
<td>Yes/Map</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>499070</td>
</tr>
<tr>
<td>Umm Er Radhuma</td>
<td>Iraq, Kuwait, The United Arab Emirates, Brhain, Qatar, Oman, and Yemen</td>
<td>658575</td>
<td>Yes/Map</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>658575</td>
</tr>
</tbody>
</table>

\(^c\) 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.

\(^d\) In the text of the agreement or arrangement or in the practice.
<table>
<thead>
<tr>
<th>Name of the transboundary aquifer</th>
<th>Countries shared with</th>
<th>Surface area of the aquifer (in km²) within the territory of the country</th>
<th>Covered within an arrangement not specific to the aquifer (entirely, partly, no)</th>
<th>Covered by an aquifer specific arrangement (entirely, partly, no)</th>
<th>Criterion 1 applied (yes/no)</th>
<th>Criterion 2 applied (yes/no)</th>
<th>Criterion 3 applied (yes/no)</th>
<th>Criterion 4 applied (yes/no)</th>
<th>Surface area of the aquifer (in km²) covered by an operational arrangement within the territory of the country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wasia-Biyadh aquifer</td>
<td>Iraq, Kuwait, The United Arab Emirates, Brtain, Qatar, Oman, and Yemen</td>
<td>849525</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>849525</td>
</tr>
<tr>
<td>Wajid aquifer</td>
<td>Yemen</td>
<td>685757</td>
<td>Yes/Map</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>685757</td>
</tr>
</tbody>
</table>

(C) Sub-total: surface area of transboundary aquifers covered by operational arrangements (in km²) 3396468.45

(D) Total surface area of transboundary aquifers (in km²) 3789267
**Indicator value for the country**

**Surface waters:**
Percentage of surface area of transboundary basins of rivers and lakes covered by an operational arrangement:
\[
\frac{A}{B} \times 100 = 
\]

**Aquifers:**
Percentage of surface area of transboundary aquifers covered by an operational arrangement:
\[
\frac{C}{D} \times 100 = 89.63 
\]

**Sustainable Development Goal indicator 6.5.2:**
Percentage of surface area of transboundary basins covered by an operational arrangement:
\[
\left( \frac{A + C}{B + D} \right) \times 100 = 89.63 
\]

**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.

**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:

- Most of the water-aquifers are deep and have high salinity, so the Gulf Cooperation Council countries rely on desalination of sea water, and are working on the Gulf water link project with a unified network of desalinated water.
- Geological studies show that the hydraulic connection in the Al Wajid layer with Yemen is very small and can be neglected.
- The connection to Iraq is of minimal extent, since most of the Neogene inside Iraq is hydraulically separated from the Neogene in Saudi Arabia.

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): [fill in]

1. **Bilateral**

2. **Multilateral**
   - The Ministerial Committee for Electricity and Water in the Cooperation Council for the Arab States of the Gulf.
   - Permanent Committee for Water Resources in the Cooperation Council for the Arab States of the Gulf.

(The Cooperation Council for the Arab States of the Gulf are The Kingdom of Saudi Arabia, Kingdom of Bahrain, United Arab Emirates, Sultanate of Oman, State of Kuwait and State of Qatar).

3. The Saudi Development Reconstruction Program for Yemen.

4. The Saudi-Iraqi Coordination Council (Agricultural Committee)

(arrangement for Iraq)
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. 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 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: **Saq Aquifer**

List of the riparian States: **Kingdom of Saudi Arabia and the Hashemite Kingdom of Jordan**

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: [fill in]

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) [Agreement on Groundwater Management and Development of SAQ-DISI Aquifer between The Kingdom of Saudi Arabia and The Hashemite Kingdom of Jordon.]

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1 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.

2 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.
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:* [fill in]

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? [The area covered by the agreement has been precisely and clearly defined, so that there is an area that is prohibited to work in it with any activity that leads to the extraction of water, and the administrative area from which extraction takes place is determined.]
       Or, if the agreement or arrangement relates to a sub-basin, does it cover the entire sub-basin?
       Yes ☑/No ☐
       Additional explanations? [fill in]
       Which States (including your own) are bound by the agreement or arrangement? *(Please list):* [Saudi Arabia and Jordan]

   (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: [fill in]

   (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?

<table>
<thead>
<tr>
<th>Procedural and institutional issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dispute and conflict prevention and resolution ☒</td>
</tr>
<tr>
<td>Institutional cooperation (joint bodies) ☒</td>
</tr>
<tr>
<td>Consultation on planned measures ☒</td>
</tr>
<tr>
<td>Mutual assistance ☒</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Topics of cooperation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joint vision and management objectives ☒</td>
</tr>
<tr>
<td>Joint significant water management issues □</td>
</tr>
<tr>
<td>Navigation □</td>
</tr>
<tr>
<td>Human health □</td>
</tr>
<tr>
<td>Environmental protection (ecosystem) □</td>
</tr>
<tr>
<td>Water quality ☒</td>
</tr>
<tr>
<td>Water quantity or allocation ☒</td>
</tr>
<tr>
<td>Cooperation in addressing floods □</td>
</tr>
<tr>
<td>Cooperation in addressing droughts □</td>
</tr>
<tr>
<td>Climate change adaptation □</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Monitoring and exchange</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joint assessments ☒</td>
</tr>
<tr>
<td>Data collection and exchange ☒</td>
</tr>
<tr>
<td>Joint monitoring ☒</td>
</tr>
<tr>
<td>Maintenance of joint pollution inventories □</td>
</tr>
<tr>
<td>Elaboration of joint water quality objectives □</td>
</tr>
<tr>
<td>Common early warning and alarm procedures □</td>
</tr>
<tr>
<td>Exchange of experience between riparian States ☒</td>
</tr>
<tr>
<td>Exchange of information on planned measures □</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Joint planning and management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development of joint regulations on specific topics □</td>
</tr>
<tr>
<td>Development of international or joint river, lake or aquifer basin management or action plans □</td>
</tr>
</tbody>
</table>
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?

- a managed and effective bilateral operation and management of the aquifer

(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): [fill in]

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): [Saudi Arabia and Jordan]
(d) Are there any riparian States that are not members of the joint body or mechanism? (please list): No

(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): [fill in]

   A subsidiary body or bodies

   Please list (e.g., working groups on specific topics): [fill in]

   Other features (please list): [Technical committee]

(g) What are the tasks and activities of this joint body or mechanism?*3

   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
   
   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

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*3 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 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: [fill in]

Unexpected planning delays [☐]

Please describe, if any: [fill in]

Lack of resources [☐]

Please describe, if true: [fill in]

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: [fill in]

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?

- The operation and management of the joint aquifer is happening effective sustainable manner

  (k) Did the joint body or mechanism ever invite a non-riparian coastal State to cooperate?
Yes [ ] / No [x]  
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? [fill in]

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 [x] / No [ ]  
If yes, please provide further details: [fill in]

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 [x]
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 [x] / No [ ]  
(b) If yes, how often:
   More than once per year [ ]
   Once per year [x]
   Less than once per year [ ]
(c) Please describe how information is exchanged (e.g. in connection with meetings of joint bodies): [fill in]
(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 [x]
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 [x]
(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): [fill in]

7. Do the riparian States carry out joint monitoring in the transboundary basin, sub-basin, part of a basin or group of basins?
Yes [x]/No [ ]
(a) If yes, what does the joint monitoring cover?

<table>
<thead>
<tr>
<th></th>
<th>Hydrological</th>
<th>Ecological</th>
<th>Chemical</th>
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<td>Border surface waters</td>
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</tbody>
</table>
Hydrological  Ecological  Chemical

Transboundary aquifer(s) (connected or unconnected)  ☒  ☐  ☐
Aquifer(s) in the territory of one riparian hydraulically connected to a transboundary river or lake  ☒  ☐  ☐

(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: [fill in]*

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? [fill in]*

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
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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4 Or, where applicable, aquifer management plans.
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. 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 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:

[Dammam aquifer]

List of the riparian States: [Saudi Arabia, Iraq, Kuwait, Bahain, Qatar, The United Arab Emirates, Oman, and Yaman]

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: [fill in]

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. Multilateral

---

1 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.

2 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.
• The Ministerial Committee for Electricity and Water in the Cooperation Council for the Arab States of the Gulf.
• Permanent Committee for Water Resources in the Cooperation Council for the Arab States of the Gulf
2. The Saudi Development Reconstruction Program for Yemen. (arrangement for Yemen).
3. The Saudi-Iraqi Coordination Council (Agricultural Committee) (arrangement for Iraq)...

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: [fill in]

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? [.]
Or, if the agreement or arrangement relates to a sub-basin, does it cover the entire sub-basin?
Yes □/No □
Additional explanations? [fill in]

Which States (including your own) are bound by the agreement or arrangement? (Please list): [Saudi Arabia, Iraq, Kuwait, The United Arab Emirates, Oman, and Yemen]

(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: [fill in]

(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?

Joint work to preserve the capabilities of the GCC countries and preserve the natural resources for future generations, the most important reasons for success are political will and cooperation of experts in the field of water.

(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*):

https://www.gcc-sg.org/ar-sa/CooperationAndAchievements/Achievements/EconomicCooperation/CooperationintheFieldofElectricityandWater/Achievements/Pages/VIII_SustainableDevelopmentandL.pdf


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): [Saudi Arabia, Kuwait, The United Arab Emirates, 
Oman]

(Iraq), Separate arrangement

(Yemen) Separate arrangement

(d) Are there any riparian States that are not members of the joint body or 
mechanism? (Please list): [fill in] No

(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): [Countries not belonging to the Gulf Cooperation 
Council, cooperation with them through separate cooperation committees]

(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): [There is a 
general secretariat, and its members are elected from all countries]

- A subsidiary body or bodies

Please list (e.g., working groups on specific topics): [fill in]

Other features (please list): [Technical committee]

(g) What are the tasks and activities of this joint body or mechanism?

- Identification of pollution sources
- Data collection and exchange ☒

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3 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.
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
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: [fill in]

Unexpected planning delays

Please describe, if any: [fill in]

Lack of resources

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

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?

- The operation and management of the joint aquifer is happening effective sustainable manner

(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? [fill in]

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:* [fill in]

5. How is the transboundary basin, sub-basin, part of a basin 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): [If any country requests information, it is evaluated through the relevant ministry, and then submitted to the requesting party through the committees of the Gulf Cooperation Council.]

(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)*: [Assist in proper planning for the future]

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

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

<table>
<thead>
<tr>
<th>Area</th>
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<td>please describe [fill in]</td>
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</tbody>
</table>

(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: [fill in]

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? [GCC STANDARDIZATION ORGANIZATION (GSO) Un-bottled drinking water]

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\(^4\)
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.

\(^4\) Or, where applicable, aquifer management plans.
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. 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 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: [Neogene aquifer]

List of the riparian States: [Saudi Arabia, Iraq, Kuwait, The United Arab Emirates, Oman, and Yemen]

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: [fill in]

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. Multilateral

---

1 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.

2 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.
2. Does this agreement or arrangement specify the area subject to cooperation?
   Yes [ ] No [x]  
   If yes, does it cover the entire basin or group of basins and all riparian States?
   Yes [ ] No [ ]
   Additional explanations? [ ]
   Or, if the agreement or arrangement relates to a sub-basin, does it cover the entire sub-basin?
   Yes [ ] No [ ]
   Additional explanations? [fill in]

3. Which States (including your own) are bound by the agreement or arrangement? (Please list): [Saudi Arabia, Iraq, Kuwait, The United Arab Emirates, Oman, and Yaman]

4. If the agreement or arrangement relates to a river or lake basin or sub-basin, does it also cover aquifers?
   Yes [ ] No [x]
   If yes, please list the aquifers covered by the agreement or arrangement: [fill in]

5. What is the sectoral scope of the agreement or arrangement?
   All water uses [x]
   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?

Joint work to preserve the capabilities of the GCC countries and preserve the natural resources for future generations, the most important reasons for success are political will and cooperation of experts in the field of water.

(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):

https://www.gcc-sg.org/ar-sa/CooperationAndAchievements/Achievements/EconomicCooperation/CooperationintheFieldofElectricityandWater/Achievements/Pages/VIIItheSustainableDevelopmentndl.aspx


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 [x]

(c) Which States (including your own) are members of the joint body or mechanism? (Please list): [Saudi Arabia, Kuwait, The United Arab Emirates, Oman, Iraq], Separate arrangement

(Yemen) Separate arrangement

(d) Are there any riparian States that are not members of the joint body or mechanism? (please list): [fill in] No

(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): [Countries not belonging to the Gulf Cooperation Council, cooperation with them through separate cooperation committees]

(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): [There is a general secretariat, and its members are elected from all countries]

- A subsidiary body or bodies

  Please list (e.g., working groups on specific topics): [fill in]

- Other features (please list): [Technical committee]

(g) What are the tasks and activities of this joint body or mechanism?3

- Identification of pollution sources
- Data collection and exchange

---

3 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.
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
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]

(b) 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: [fill in]
| Lack of mechanism for implementing measures | No |
| Lack of effective measures | No |
| Unexpected extreme events | No |
| Lack of information and reliable forecasts | No |
| 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 | No |
| Less than once per year | No |

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

- The operation and management of the joint aquifer is happening effective sustainable manner

(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? [fill in]

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: [fill in]

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): [If any country requests information, it is evaluated through the relevant ministry, and then submitted to the requesting party through the committees of the Gulf Cooperation Council.]

(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): [Assist in proper planning for the future]

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 ☐

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

<table>
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<tr>
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<td>☐</td>
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</tr>
</tbody>
</table>

(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]
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: [fill in]

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? [GCC STANDARDIZATION ORGANIZATION (GSO) Un-bottled drinking water]

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
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.

---

4 Or, where applicable, aquifer management plans.
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. 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 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: Umm Er Radhuma aquifer

List of the riparian States: [Saudi Arabia, Iraq, Kuwait, Bahain, Qatar, The United Arab Emirates, Oman, and Yaman]

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: [fill in]

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. Multilateral

---

1 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.

2 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.
• The Ministerial Committee for Electricity and Water in the Cooperation Council for the Arab States of the Gulf.
• Permanent Committee for Water Resources in the Cooperation Council for the Arab States of the Gulf

2. The Saudi Development Reconstruction Program for Yemene. (arrangement for Yemen).

3. The Saudi-Iraqi Coordination Council (Agricultural Committee) (arrangement for Iraq)...

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: [fill in]

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? [.]

Or, if the agreement or arrangement relates to a sub-basin, does it cover the entire sub-basin? Yes/No

Additional explanations? [fill in]

Which States (including your own) are bound by the agreement or arrangement? (Please list): [Saudi Arabia, Iraq, Kuwait, The United Arab Emirates, Oman, and Yaman]

(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: [fill in]

(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?

Joint work to preserve the capabilities of the GCC countries and preserve the natural resources for future generations, the most important reasons for success are political will and cooperation of experts in the field of water.

(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): https://www.gcc-sg.org/ar-sa/CooperationAndAchievements/Achievements/EconomicCooperation/CooperationInTheFieldOfElectricityAndWater/Achievements/Pages/VIII-SustainableDevelopmentand1.aspx

Where there is a joint body or mechanism

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 [x] / No [ ]

(c) Which States (including your own) are members of the joint body or mechanism? *(Please list)*: [Saudi Arabia, Kuwait, The United Arab Emirates, Oman]

(Iraq), Separate arrangement

(Yemen) Separate arrangement

(d) Are there any riparian States that are not members of the joint body or mechanism? *(please list)*: [fill in] No

(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)*: [Countries not belonging to the Gulf Cooperation Council, cooperation with them through separate cooperation committees]

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

- A secretariat [x]

  *If the secretariat is a permanent one, is it a joint secretariat or does each country host its own secretariat? *(Please describe)*: [There is a general secretariat, and its members are elected from all countries]*

- A subsidiary body or bodies

  *(Please list (e.g., working groups on specific topics)): [fill in]*

- Other features *(please list)*: [Technical committee]

(g) What are the tasks and activities of this joint body or mechanism?³

- Identification of pollution sources
- Data collection and exchange

---

³ 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.
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

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]

(b) 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: [fill in]*
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: [fill in]

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?

- The operation and management of the joint aquifer is happening effective sustainable manner

(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? [fill in]

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: [fill in]

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): [If any country requests information, it is evaluated through the relevant ministry, and then submitted to the requesting party through the committees of the Gulf Cooperation Council.]

(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): [Assist in proper planning for the future]

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 ☐

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

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</table>

(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]
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: [fill in]

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? [GCC STANDARDIZATION ORGANIZATION (GSO) Un-bottled drinking water]

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
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.

4 Or, where applicable, aquifer management plans.
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. 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 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 a 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: Wajid aquifer

List of the riparian States: [Saudi Arabia, Yaman]

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: [fill in]

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 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.

2 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.
2. The Saudi Development Reconstruction Program for Yemen.

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: [fill in]

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? [.]

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

Yes ☐ No ☐

Additional explanations? [fill in]

Which States (including your own) are bound by the agreement or arrangement? (Please list): [Saudi Arabia, Yemen]

(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: [fill in]

(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 ☐
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
(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 list): [fill in]

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

Joint work to preserve the capabilities of the country and preserve the natural resources for future generations, the most important reasons for success are political will and cooperation of experts in the field of water.

(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):

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): [Saudi Arabia, yemen]*
(d) Are there any riparian States that are not members of the joint body or mechanism? (please list): [fill in] No

(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): [Countries not belonging to the Gulf Cooperation Council, cooperation with them through separate cooperation committees]

(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): [There is a general secretariat, and its members are elected from all countries]
- A subsidiary body or bodies
- Please list (e.g., working groups on specific topics): [fill in]
- Other features (please list): [Technical committee]

(g) What are the tasks and activities of this joint body or mechanism?³

- 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
- Exchange of experience between riparian States
- Exchange of information on existing and planned uses of water and related installations
- Settling of differences and conflicts

³ 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.
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: [fill in]
Unexpected planning delays ☑
Please describe, if any: [fill in]
Lack of resources ☑
Please describe, if true: [fill in]
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: [fill in]
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?

- The operation and management of the joint aquifer is happening effective sustainable manner

(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? [fill in]

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: [fill in]

5. How is the transboundary basin, sub-basin, part of a basin 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): [.]

(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): [Assist in proper planning for the future]

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 ☐

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

<table>
<thead>
<tr>
<th></th>
<th>Hydrological</th>
<th>Ecological</th>
<th>Chemical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Border surface waters</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Surface waters in the entire basin</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Surface waters on the main watercourse</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
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 [x]
   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: [fill in]

9. Have the riparian States agreed to use joint water quality standards?
   Yes [ ] No [x]
   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? [ ]

10. What are the measures implemented to prevent or limit the transboundary impact of accidental pollution?
    Notification and communication [x]
    Coordinated or joint early warning or alarm system for accidental

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<table>
<thead>
<tr>
<th>Hydrological</th>
<th>Ecological</th>
<th>Chemical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface waters in part of the basin</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>Transboundary aquifer(s) (connected or unconnected)</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>Aquifer(s) in the territory of one riparian hydraulically connected to a transboundary river or lake</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

(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]
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
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.

---

4 Or, where applicable, aquifer management plans.
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.\(^1\) 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\(^2\) 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: [Wasia-Biyadh aquifer]

List of the riparian States: [Saudi Arabia, Iraq, Kuwait, Bahain, Qatar, The United Arab Emirates, Oman, and Yaman]

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: [fill in]

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] Multilateral

\(^1\) 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.

\(^2\) 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.
2. The Ministerial Committee for Electricity and Water in the Cooperation Council for the Arab States of the Gulf.

3. Permanent Committee for Water Resources in the Cooperation Council for the Arab States of the Gulf

2. The Saudi Development Reconstruction Program for Yemen (arrangement for Yemen).

3. The Saudi-Iraqi Coordination Council (Agricultural Committee) (arrangement for Iraq...]

Agreement or arrangement is under development Yes/No

No agreement or arrangement Yes/No

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: [fill in]

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? [fill in]

Or, if the agreement or arrangement relates to a sub-basin, does it cover the entire sub-basin? Yes/No

Additional explanations? [fill in]

Which States (including your own) are bound by the agreement or arrangement? (Please list): [Saudi Arabia, Iraq, Kuwait, The United Arab Emirates, Oman, and Yemen]

(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: [fill in]

(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**

<table>
<thead>
<tr>
<th>Sector</th>
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<tbody>
<tr>
<td>Industry</td>
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<tr>
<td>Agriculture</td>
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<tr>
<td>Transport (e.g., navigation)</td>
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<td>Households</td>
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<tr>
<td>Energy: hydropower and other energy types</td>
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<tr>
<td>Fisheries</td>
</tr>
<tr>
<td>Tourism</td>
</tr>
<tr>
<td>Nature protection</td>
</tr>
<tr>
<td>Other (please list): [fill in]</td>
</tr>
</tbody>
</table>

(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?

Joint work to preserve the capabilities of the GCC countries and preserve the natural resources for future generations, the most important reasons for success are political will and cooperation of experts in the field of water.

(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):


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): [Saudi Arabia, Kuwait, The United Arab Emirates, Oman]

(Iraq), Separate arrangement

(Yemen) Separate arrangement

(d) Are there any riparian States that are not members of the joint body or mechanism? (please list): [fill in] No

(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): [Countries not belonging to the Gulf Cooperation Council, cooperation with them through separate cooperation committees]

(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): [There is a general secretariat, and its members are elected from all countries]

- A subsidiary body or bodies

- Please list (e.g., working groups on specific topics): [fill in]

- Other features (please list): [Technical committee]

(g) What are the tasks and activities of this joint body or mechanism?³

- Identification of pollution sources
- Data collection and exchange

³ 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.
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

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]

(b) 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: [fill in]*
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: [fill in]*

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?

- The operation and management of the joint aquifer is happening effective sustainable manner

(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? [fill in]*

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: [fill in]*

5. How is the transboundary basin, or 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): [If any country requests information, it is evaluated through the relevant ministry, and then submitted to the requesting party through the committees of the Gulf Cooperation Council.]

   (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]

   (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): [Assist in proper planning for the future]

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 □

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

<table>
<thead>
<tr>
<th></th>
<th>Hydrological</th>
<th>Ecological</th>
<th>Chemical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Border surface waters</td>
<td></td>
<td></td>
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<tr>
<td>Surface waters in the entire basin</td>
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<tr>
<td>Surface waters on the main watercourse</td>
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<tr>
<td>Surface waters in part of the basin</td>
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<tr>
<td>please describe [fill in]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transboundary aquifer(s) (connected or unconnected)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Aquifer(s) in the territory of one riparian hydraulically connected to a transboundary river or lake</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(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: [fill in]

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? [GCC STANDARDIZATION ORGANIZATION (GSO) Un-bottled drinking water]

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
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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4 Or, where applicable, aquifer management plans.
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: Water Law and its regulations and the National Water Strategy 2030*

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

- Precautionary principle ☐ / No ☒
- Polluter pays principle ☐ / No ☒
- Sustainable development ☐ / No ☒
- User pays principle ☐ / No ☒

*If yes, please briefly describe how these principles are implemented at the national level: The country have developed a strong regulatory and institutional setup and implementation program to achieve the country national vision and plans*

(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): yes it is and it is subjected to regular review*

*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): at the discharge point*

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]
(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
- Monitoring and control of abstractions
- Water rights are defined
- Water allocation priorities are listed
- Water-saving technologies
- Advanced irrigation techniques
- Demand management activities
- Other means (please list)

(g) Does your country apply the ecosystems approach?

Yes ☒/No ☐

*If yes, please describe how: [fill in]*

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

Yes ☒/No ☐

*If yes, please briefly describe the most important measures: [Envirometal law prohibited the disposal of any pollution source materials]*

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. [fill in]*

*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 ☐
- Lack of relevant data and information ☐
- Difficulties in data and information exchange ☐
- Sectoral fragmentation at the national level ☐
- Language barrier ☐
- Resource constraints ☒
- Environmental pressures, e.g. extreme events ☐
- Sovereignty concerns ☐

Please list other challenges and/or provide further details: [fill in]
2. What have been the main achievements in cooperating on transboundary waters?

- Improved water management
- Enhanced regional integration, i.e. beyond water
- Adoption of cooperative arrangements
- Adoption of joint plans and programmes
- Long-lasting and sustained cooperation
- Financial support for joint activities
- Stronger political will for transboundary water cooperation
- Better knowledge and understanding
- Dispute avoidance
- Stakeholder engagement

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
- Other riparian or aquifer countries
- National water management authority
- Environment agency/authority
- Basin authority (national)
- Local or provincial government
- Geological survey (national)
- Non-water specific ministries, e.g. foreign affairs, finance, forestry and energy
- Civil society organizations
- Water user associations
- Private sector
- Other (please list): [fill in]

Please briefly describe the process by which the questionnaire was completed: [fill in]

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): [fill in]

Date: [fill in] Signature: [fill in]

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

حكومة المملكة العربية السعودية
 И Gobierno المملكة الأردنية الهاشمية

من أجل إدارة واستثمار المياه الجوفية
في طبقة الساق/ الديسي
اتفاقية بين
حكومة المملكة العربية السعودية وحكومة المملكة الأردنية الهاشمية
من أجل إدارة واستثمار المياه الجوفية في طبقة الساق/ الديسي

إن حكومة المملكة العربية السعودية ممثلة في وزارة المياه والكهرباء، وحكومة المملكة الأردنية الهاشمية ممثلة في وزارة المياه والري، (المشار إليها فيما بعد بالطرفين)، وانطلاقاً من أواصر الأخوة التي تربط بين الشعبين والبلدين الشقيقين والعلاقات المميزة القائمة بينهما، وتأكيداً للتعاون المخلص فيما بينهما، وحيث أن هناك طبقة حوض مائي مشتركة بينهما تعرف في المملكة العربية السعودية بطبقة (الساق)، وفي المملكة الأردنية الهاشمية بطبقة (الديسي)، ولتوافر رغبة البلدين في تطبيق أقصى درجات الحكمة في إدارة واستثمار المياه الجوفية محدودة التجد في هذه الطبقة بما يعود بالنفع عليها.

اتفق الطرفان على ما يلي:

المادة الأولى:
لاعتراف هذه الاتفاقية يقصد بالكلمات والعبارات الواردة فيما يلي المعاني المبينة إياها:

السعودية:
حكومة المملكة العربية السعودية - وزارة المياه والكهرباء.

الأردن:
حكومة المملكة الأردنية الهاشمية - وزارة المياه والري.

طبقة الساق:
هي الجزء من التكوين الجيولوجي الحامل للمياه من طبقة الساق الرئيسي والمندم من الحدود الأردنية حتى نهاية حقل آبار مشروع مياه تبوك المركزي في المملكة العربية السعودية.

طبقة الديسي:
هي الجزء من التكوين الجيولوجي الحامل للمياه من طبقة الديسي الرئيسي المند من الحدود السعودية حتى نهاية حقل آبار مشروع نقل مياه الديسي في منطقة دمبد في المملكة الأردنية الهاشمية.
مشروع نقل مياه الديسي:
مشروع نقل المياه من طبقة الديسي في منطقة دبيد إلى مدينة عمّان والمحافظات الأخرى.

مشروع مياه تبوك المركزي:
مشروع نقل المياه من طبقة الساق إلى تبوك والمدن والقرى الأخرى.

اللجنة الفنية المشتركة:
اللجنة المنصوص عليها في المادة (الثالثة) من هذه الاتفاقية.

الملوث:
أي تلوث للمياه السطحية أو الجوفية سواء كيميائي أو جرثومي أو غيرهما بشكل مباشر أو غير مباشر.

خط الحدود الدولية:

منطقة الإدارة:
هي المنطقة المحصورة بإحداثيات النقاط (B1,B2,J1,J2) في الأردن والمنطقة المحصورة بإحداثيات النقاط (B1,B2,S3,S4) في السعودية، وهي جزء من طبقة الديسي في الأردن وطبقة الساق في السعودية، والمؤشر في المخطط المرفق (خريطة اتفاقية إدارة واستثمار المياه الجوفية في طبقة الساق/الديسي).

المنطقة المحصورة (المحظورة):
هي جزء من منطقة الإدارة المحصورة بإحداثيات النقاط (B1,B2,J1,J2) والواقعة في الأردن والمنطقة المحصورة بإحداثيات النقاط (B1,B2,S1,S2) في السعودية والمؤشر في المخطط المرفق (خريطة اتفاقية إدارة واستثمار المياه الجوفية في طبقة الساق/الديسي).

المادة الثانية:
اتفاق الطرفان على ضرورة حسن إدارة واستثمار واستدامة مياه طبقة الساق/الديسي، وذلك من خلال الآتي:
1 - التخلص من جميع النشاطات في المنطقة المحمية (المحظورة)، التي تعتمد على استخراج المياه الجوفية منها خلال مدة خمس سنوات من تاريخ توقيع هذه الاتفاقية.

2 - إبقاء المنطقة المحمية (المحظورة)، بين البلدين الشقيقين خالية من جميع النشاطات التي تعتمد على استخراج المياه الجوفية منها.

3 - حفظ أبار مراقبة للمياه الجوفية في المنطقة المحمية (المحظورة)، لاستخلاص المعلومات المتعلقة بنوعية ومستويات المياه الجوفية، على أن يسبق عمليات الحفر التنسيق عبر اللجنة الفنية المشتركة.

4 - أن يكون حفر أبار المياه في منطقة الإدارة وفق المواصفات الفنية المعتمدة في البلدين، ويمنع الحفر الافتقي أو المائل في أبار المياه لتلقي أي تلوث.

5 - المحافظة على المياه الجوفية في منطقة الإدارة بين البلدين من أي تلوث وعدم السماح بحقن أي ملوث مهما كان نوعه أو كميته.

6 - حصر استخدام المياه الجوفية المستخرجة من منطقة الإدارة للاستخدامات البلدية في البلدين.

المادة الثالثة:

1 - تشكل لجنة فنية سعودية أردنية مشتركة تتألف من خمسة أعضاء من كل جانب، يرأسها من الجانب السعودي وكيل وزارة المياه والكهرباء لشؤون المياه، ويرأسها من الجانب الأردني أمين عام وزارة المياه والري.

2 - يحق للجنة الاستشراك بخبراء ومستشارين واستخدام مساعدين وفنيين وموظفين من رعايا الدولتين أو غيرهم بحسب الحاجة للقيام بأعمال محدودة.

3 - تعيق اللجنة الفنية المشتركة اجتماعاتها بصورة دورية كل (ستة) أشهر؛ أو كلما دعت الحاجة.

4 - تتولى اللجنة الفنية المشتركة ما يأتي:

   أ - الإشراف على تطبيق أحكام هذه الاتفاقية.

   ب - مراقبة المياه الجوفية ورصدها، من حيث كمية السحب ومستويات المياه وال نوعية.
ج- جمع وتبادل البيانات والمعلومات والدراسات وتحليلها، وتقديم النتائج للجهات المختصة في السعودية والأردن، وتكون هذه المعلومات والبيانات ملكًا للطرفين، ولا يجوز للجنة الفنية المشتركة تزويد طرف ثالث بها إلا بموافقة ختية من الطرفين.

المادة الرابعة:

1- يتم إقرار هذه الاتفاقية وفقًا للأحكام والتشريعات النافذة لكل الطرفين، وتصبح سارية المفعول من تاريخ التوقيع عليها بحسب الإجراءات الرسمية في كلا البلدين.
2- يعد المخطط المرافق لهذه الاتفاقية جزءًا لا يتجزأ منها، وتسري أحكام هذه الاتفاقية على الجزء المحدد فيه.
3- تراجع هذه الاتفاقية كل خمسة وعشرين عاماً.
4- عند الحاجة إلى تعديل أي من بنود هذه الاتفاقية بما يعود بالنفع على البلدين الشقيقين، تقوم اللجنة الفنية المشتركة بدراسة ذلك والرفع إلى الجهات المختصة؛ لاستكمال الإجراءات الرسمية في كلا البلدين لإقرارها.
5- حُررت هذه الاتفاقية في مدينة الرياض بتاريخ 11/7/1436 هـ الموافق 30/3/2015م، من نسختين أصليتين باللغة العربية، ولهما نفس الحجية، وسُلم لكل طرف نسخة منها.

عن حكومة المملكة العربية السعودية
وزير المياه والكهرباء
عثمان عبد الله بن عبدالرحمن الحسين

عن حكومة المملكة الأردنية الهاشمية
وزير المياه والري
الدكتور حازم كمال الناصر