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

Content of the template

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Country name: **SWEDEN**

Section I. Calculation of Sustainable Development Goal indicator 6.5.2

Methodology x

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 operability;

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

(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)

<i>Name of transboundary river or lake basin/sub-basin</i>	<i>It is a basin or a sub-basin?^b</i>	<i>Countries shared with</i>	<i>Surface area of the basin/sub-basin (in km²) within the territory of the country</i>	<i>Map and/or GIS shapefile provided (yes/no)</i>	<i>Covered by an arrangement (entirely, partly, no) (Ref. to questions in sect. II)</i>	<i>Criterion 1 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Criterion 2 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Criterion 3 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Criterion 4 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Surface area of the basin/sub-basin (in km²) covered by an operational arrangement within the territory of the country</i>
Torneälven (River Torne)	Basin	Finland Norway	25 393	yes	Entirely	Yes	Yes	Yes	Yes	25 393
Klarälven/Trysilelva	Basin	Norway	6 590	yes	Entirely	Yes	Yes	Yes	Yes	6 590
Enningdalsälven	Basin	Norway	554	yes	Entirely	Yes	Yes	Yes	Yes	554
Luleälven	Basin group 1	Norway	24 541	no	Entirely	YES	YES	YES	YES	24 541
Piteälven	Basin group 1	Norway	12 204	no	Entirely	YES	YES	YES	YES	12 204
Skellefteälven	Basin group 1	Norway	11 685	no	Entirely	YES	YES	YES	YES	11 685
Umeälven	Basin group 1	Norway	26 594	no	Entirely	YES	YES	YES	YES	26 594
Ångermanälven	Basin group 1	Norway	30 315	no	Entirely	YES	YES	YES	YES	30 315
Indalsälven	Basin group 1	Norway	24 663	no	Entirely	YES	YES	YES	YES	24 663
Ljusnan	Basin group 1	Norway	19 806	no	Entirely	YES	YES	YES	YES	19 806
Dalälven	Basin group 1	Norway	27 803	no	Entirely	YES	YES	YES	YES	27 803
Norsälven	Basin group 1	Norway	3 695	no	Entirely	YES	YES	YES	YES	3 695
Byälven	Basin group 1	Norway	3 417	no	Entirely	YES	YES	YES	YES	3 417
Upperudsälven	Basin group 1	Norway	3 110	no	Entirely	YES	YES	YES	YES	3 110
Strömsån	Basin group 1	Norway	251	no	Entirely	YES	YES	YES	YES	251

^b List sub-basins after the basin they belong to.

<i>Name of transboundary river or lake basin/sub-basin</i>	<i>It is a basin or a sub-basin?^b</i>	<i>Countries shared with</i>	<i>Surface area of the basin/sub-basin (in km²) within the territory of the country</i>	<i>Map and/or GIS shapefile provided (yes/no)</i>	<i>Covered by an arrangement (entirely, partly, no) (Ref. to questions in sect. II)</i>	<i>Criterion 1 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Criterion 2 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Criterion 3 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Criterion 4 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Surface area of the basin/sub-basin (in km²) covered by an operational arrangement within the territory of the country</i>
Haldenvassdraget	Basin group 2	Norway	18	no	Entirely	YES	YES	YES	YES	18
Glommavassdraget	Basin group 2	Norway	420	no	Entirely	YES	YES	YES	YES	420
Nidelvvassdraget	Basin group 2	Norway	289	no	Entirely	YES	YES	YES	YES	289
Stjørdalsvassdraget	Basin group 2	Norway	52	no	Entirely	YES	YES	YES	YES	52
Verdalsvassdraget	Basin group 2	Norway	110	no	Entirely	YES	YES	YES	YES	110
Vefsna	Basin group 2	Norway	559	no	Entirely	YES	YES	YES	YES	559
Røssåga	Basin group 2	Norway	148	no	Entirely	YES	YES	YES	YES	148
Bjerka	Basin group 2	Norway	36	no	Entirely	YES	YES	YES	YES	36
Ranavassdraget	Basin group 2	Norway	256	no	Entirely	YES	YES	YES	YES	256
Saltdalsvassdraget	Basin group 2	Norway	114	no	Entirely	YES	YES	YES	YES	114
Sulitjelmavassdraget	Basin group 2	Norway	7	no	Entirely	YES	YES	YES	YES	7
Fagerbakkvassdraget	Basin group 2	Norway	5	no	Entirely	YES	YES	YES	YES	5
Laksåga	Basin group 2	Norway	19	no	Entirely	YES	YES	YES	YES	19
Sørfjordelva	Basin group 2	Norway	6	no	Entirely	YES	YES	YES	YES	6
Hellemovassdraget	Basin group 2	Norway	10	no	Entirely	YES	YES	YES	YES	10
Storelva	Basin group 2	Norway	9	no	Entirely	YES	YES	YES	YES	9
Skjomavassdraget	Basin group 2	Norway	156	no	Entirely	YES	YES	YES	YES	156
Salangselva	Basin group 2	Norway	1	no	Entirely	YES	YES	YES	YES	1
Målselvassdraget	Basin group 2	Norway	227	no	Entirely	YES	YES	YES	YES	227

Name of transboundary river or lake basin/sub-basin	It is a basin or a sub-basin? ^b	Countries shared with	Surface area of the basin/sub-basin (in km ²) within the territory of the country	Map and/or GIS shapefile provided (yes/no)	Covered by an arrangement (entirely, partly, no) (Ref. to questions in sect. II)	Criterion 1 applied (yes/no) (Ref. to questions in sect. II)	Criterion 2 applied (yes/no) (Ref. to questions in sect. II)	Criterion 3 applied (yes/no) (Ref. to questions in sect. II)	Criterion 4 applied (yes/no) (Ref. to questions in sect. II)	Surface area of the basin/sub-basin (in km ²) covered by an operational arrangement within the territory of the country
Signalalelva	Basin group 2	Norway	49	no	Entirely	YES	YES	YES	YES	49
(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) (do not double count sub-basins)										223 112
(B) Total surface area of transboundary basins of rivers and lakes within the territory of the country (in km²) (do not double count sub-basins)			223 112							

Table 2

Transboundary aquifers (please add rows as needed)

Name of the transboundary aquifer	Countries shared with	Surface area of the aquifer ^c (in km ²) within the territory of the country	Map and/ or GIS shapefile provided (yes/no)	Covered by an aquifer specific arrangement (entirely, partly, no) (Ref. to questions in sect. II)	Covered within an arrangement not specific to the aquifer ^d (entirely, partly, no) (Ref. to questions in sect. II)	Criterion 1 applied (yes/no) (Ref. to questions in sect. II)	Criterion 2 applied (yes/no) (Ref. to questions in sect. II)	Criterion 3 applied (yes/no) (Ref. to questions in sect. II)	Criterion 4 applied (yes/no) (Ref. to questions in sect. II)	Surface area of the aquifer (in km ²) covered by an operational arrangement within the territory of the country
Kortlanda-Eda glasbruk (in the district of Västerhavet)	Norway	13,8	Yes	No	Entirely	Yes	Yes	Yes	Yes	13,8
Lekvattnet-Rottnemon (in the district of Västerhavet)	Norway	9,3	Yes	No	Entirely	Yes	Yes	Yes	Yes	9,3
SE681162-135429 (in the district of Bottenhavet)	Norway	26,2	Yes	No	Entirely	Yes	Yes	Yes	Yes	26,2
Görälvåsén (in the district of Bottenhavet)	Norway	4,3	Yes	No	Entirely	Yes	Yes	Yes	Yes	4,3
(C) Sub-total: surface area of transboundary										53,6

^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.

Name of the transboundary aquifer	Countries shared with	Surface area of the aquifer ^c (in km ²) within the territory of the country	Map and/ or GIS shapefile provided (yes/no)	Covered by an aquifer specific arrangement (entirely, partly, no) (Ref. to questions in sect. II)	Covered within an arrangement not specific to the aquifer ^d (entirely, partly, no) (Ref. to questions in sect. II)	Criterion 1 applied (yes/no) (Ref. to questions in sect. II)	Criterion 2 applied (yes/no) (Ref. to questions in sect. II)	Criterion 3 applied (yes/no) (Ref. to questions in sect. II)	Criterion 4 applied (yes/no) (Ref. to questions in sect. II)	Surface area of the aquifer (in km ²) covered by an operational arrangement within the territory of the country	
aquifers covered by operational arrangements (in km²)											
(D) Total surface area of transboundary aquifers (in km²)		53,6									

Indicator value for the country**Surface waters:**

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

$$A/B \times 100 = 100 \%$$

Aquifers:

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

$$C/D \times 100 = 100 \%$$

Sustainable Development Goal indicator 6.5.2:

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

$$((A + C)/(B + D)) \times 100 = 100 \%$$

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:

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):

Finland-Sweden: Transboundary water cooperation Agreement for River Torne (Finsk-svenska gränsälvöverenskommelsen). The Agreement is under revision 2020 and some details may change but the main terms and topics will remain the same <http://www.fsgk.se/Finnish-Swedish-Transboundary-Rivers-Agreement-2009.pdf>

Norway-Sweden 2018: Avtal om samarbete 2018-2020 mellan Havs- och vattenmyndigheten (Sverige) och Miljødirektoratet (Norge) om vattenförvaltning enligt EU:s ramdirektiv för vatten (Agreement on cooperation 2018-2020 between the Swedish Agency for Marine and Water Management (Sweden) and the Environment Directorate (Norway) on water management in accordance with the EU Water Framework Directive). A prolongation of the Agreement is planned and the terms will be decided at a meeting in September 2020.

Norway-Sweden 2011: the MoU from 2008 was developed into a Strategy for water management 2011-2012: Gränsvatten Norge och Sverige – Strategi för internationellt samarbete (Transboundary water Norway and Sweden – Strategy for international cooperation). (In Swedish).

Norway-Sweden 2008: A Memorandum of Understanding, describing the implementation of the WFD by the countries. Norway is not a EU member state but is voluntarily implementing IWRM according to the WFD. Since the Strategy from 2011 is based on this MoU, the MoU will not be addressed in questions 2-3 of Section II.

Norway-Sweden 1929: Convention between Sweden and Norway pertaining to certain issues concerning activities in water courses which affect water courses in the neighbouring country from 1929, http://www.riksdagen.se/sv/dokument-lagar/dokument/svensk-forfattningssamling/lag-1929404-om-giltighet-har-i-riket-av_sfs-1929-404

The former Joint body, a Water Council according to the WFD, for River Enningdalsälven (Enningdalsälvens vattenråd) has not been active since about 2015 but is planning to reinstate itself later in 2020. <http://enningdalselven.com/>

InterReg project “Vänerlaxens fria gång/Två länder – en älv” to reintroduce local salmon populations to the Trysil and Femund rivers in Norway and Klarälven in Sweden <https://tvalanderenelv.eu/>

Agreement between Norway and Sweden concerning management of salmon and trout in Enningdalsälven and the coastal areas Svinesund and Iddefjorden <https://lovdata.no/dokument/TRAKTAT/traktat/2010-03-09-6?q=svinesund%20iddefjorden>

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 agreements² 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.

1. RIVER TORNE

(TORNEÄLVEN in Swedish /TORNIONJOKI in Finnish)

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

List of the riparian States: **Sweden, Finland and Norway**

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: **River Torne, ~60% (25 393 km²) in Sweden, ~40% (14 480 km²) in Finland, ~0,5% (284 km²) in Norway**

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

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 developed, but not in force for all riparians

Please insert the name of the agreement(s) or arrangement(s) **Agreement between Finland and Sweden Concerning Transboundary Rivers**

In Swedish: Lag (2010:897) om gränsälvöverenskommelse mellan Sverige och Finland. Svensk författningssamling 2010:897

<http://www.fsgk.se/Finnish-Swedish-Transboundary-Rivers-Agreement-2009.pdf>

The current agreement entered into force on 1 October 2010, replacing an agreement between the two countries concluded in 1971.

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? **About 0,5% of the basin area is in Norway, however no part of the main rivers is in Norway, the area is very sparsely inhabited, and there are no drivers for anthropogenic impact in the Norwegian area.**

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): **Finland and Sweden**

(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:
Approximately 200 groundwater bodies in the river Torne basin are delineated as water bodies according to the Water Framework Directive.

(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*): [All water uses are relevant in the agreement.]

(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*): Joint measures to increase public awareness (written information in five languages, meetings, seminars.)

(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*): There are no significant difficulties aligning implementation of agreement with the EU Water Framework Directive. Monitoring vast uninhabited areas to prevent illegal fishing. Multi language basin which requires written information in five languages.

(f) What are the main achievements in implementing the agreement or arrangement and what were the keys to achieving such success? [Cooperation over the border in Torne Valley has a long history and common water management projects assessing the shared water bodies have eased the implementation of the agreement, e.g. water management projects, local presence and activities by the Transboundary River Commission to openly inform and serve the stakeholders of the region.

One important key factor is the wording of the Agreement itself. It has a broad scope and a modern approach to the key issues, an active Secretariat with support from the Commission and the Water directors to implement the Agreement in a manner that is fit for purpose in this water district.

Another success factor is that the cultural and socio-cultural approach related to the river ecosystem, and social realities and history within the water district with its diversity of cultures and languages, have been linked and included into both water management work and fishery management dialogue with the authorities and stakeholders.

This cooperation has for instance resulted in:

- A comprehensive joint Water Management Plan (WMP) produced in 2016, including a regional and national information strategy to raise awareness and include the stakeholders in the water management, simultaneously published in national majority and minority languages. An updated version for the next management cycle is under development.
- A joint effort in Flood Risk Management Planning (FRMP). Planned Finnish and Swedish measures are included and compared in the national management plans. Work for joint measures is ongoing.
- A jointly produced work plan (Action Plan) for the next round in WMP and FRMP work, planned with the regional authorities and The Commission.
- Exchange of knowledge and expertise.
- Cross-border projects mainly concerning management according to the WFD (EU Interreg TRIWA I-III)
- Common goals for water management
- Common goals and joint regulation for fishing
- Joint waste water treatment plants in Haparanda and Karesuando
- A trust between the Transboundary Commission and the stakeholders including the national and regional state officials, municipalities and other interest groups.
- Communication and arrangement of open forums for discussion (Water Parliament events, projects, dialogues and meetings).
- Joint agreement to apply for EU LIFE funds for measures.]

(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*): Swedish version: Lag om gränsälvöverenskommelse mellan Sverige och Finland. Link: http://www.riksdagen.se/sv/dokument-lagar/dokument/svensk-forfattningssamling/lag-2010897-om-gransalvsoverenskommelse-mellan_sfs-2010-897

Link to the English version (translated from the Finnish version): Finnish-Swedish Transboundary Rivers Agreement <http://www.fsgk.se/Finnish-Swedish-Transboundary-Rivers-Agreement-2009.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 | <input type="checkbox"/> |
| Bilateral commission | <input checked="" type="checkbox"/> |
| Basin or similar commission | <input type="checkbox"/> |
| Expert group meeting or meeting of national focal points | <input type="checkbox"/> |
| Other (<i>please describe</i>): [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): **Finland and Sweden**

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

(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): **Norway will be informed about decisions that may concern them; however, while about 0,5% of the upper basin area is in Norway, no parts of the larger rivers or lakes included in the agreement are Norwegian.**

(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): **A joint secretariat, situated on the Swedish side of the twin towns Haparanda-Torneå which are divided only by the river.**

A subsidiary body or bodies

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

Other features (please list): **Each Party appoints three members to the Commission for a fixed time period, one of them from the government authority responsible for water issues and one from the municipality in the area of application of the Agreement, as well as one or several deputy members for each member. Each Party may appoint up to three permanent experts to assist the Commission. The Commission may also use other experts.**

(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

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.

-
- 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: [Joint monitoring is difficult to organise, since there is a lack of economical resources and the river basin is very large and sparsely populated. For the same reasons, operational control of e.g. fishing is difficult to perform.]

Lack of mechanism for implementing measures

Please describe, if true: [The Torne River Commission is not by its mandate an operative body in implementing the measures. The responsible bodies vary and are several.]

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: **Lack of information about diffuse pollution of heavy metals.**

Others (please list and describe, as appropriate): **The reason why Finland and Sweden have replied differently to Qs 3g and h is most likely that the tasks are not defined with enough precision which gives room for interpretation, which in itself is a definite challenge.**

There are differences in the delineation of waterbodies and classification of status according to the EU Water Framework Directive between the countries which may lead to different priorities when harmonising work plans, timetables and products within the national water management cycles.

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

Yes /No

If yes, how frequently does it meet?

More than once per year

Once per year

Less than once per year

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

Cooperation over the border in Torne Valley has a long history and common water management projects assessing the shared water bodies have eased the implementation of the agreement, e.g. water management projects and local activities by the Transboundary River Commission to inform and engage the stakeholders of the region. This cooperation has for instance resulted in:

- Exchange of knowledge and expertise,
- Cross-border projects mainly concerning management according to WFD (EU Interreg TRIWA I-III)
- Common goals for water management
- Common goals and joint regulation for fishing
- Trust between the Transboundary Commission and the stakeholders including the national and regional state officials, municipalities and other interest groups.
- Communication and arrangement of open forums for discussion (Water Parliament events, projects, dialogues and meetings).

(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? **There are no other coastal states.***

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: The respective national water management plans have been summarized for River Torne in a common report. This work was done by the national competent authorities for water management in cooperation with the transboundary commission. It was published in 2016 in four languages (not English) <http://www.fsgk.se/Torneaelvs-rapport-2nd-upplaga-52s.-A4-SWE-2.pdf>

There is also a Swedish action plan for intended transboundary cooperation in Torne River basin, but it has not yet been adopted by the national authorities.

There is as yet no common programme of measures for the basin.

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*): Sustainable management of common fish resources. The water basin is part of the Natura 2000 network.

About 10% of the groundwater in the basin is in protected aquifers.

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:

- (c) Please describe how information is exchanged (e.g. in connection with

More than once per year

Once per year

Less than once per year

meetings of joint bodies): Information and data is exchanged with Finland regularly. Information is usually exchanged by written reports or other written material to Norway and the Sámi council. Seminars or meetings are held once or twice during the six year water management cycles. In addition video conferences are held when needed.

(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*): **Updates of fishing regulation.**

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: There is no database created solely for the shared basin, but there are partly common national databases with free and publicly available data:

Swedish: <http://viss.lansstyrelsen.se/> and <http://miljodata.slu.se/mvm/>

Finnish: paikkatieto.ymparisto.fi/vesikartta.

(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: **There are national differences in chemical and hydro-morphological water quality classification systems. The water monitoring is based on national monitoring programmes. This leads to among other things different levels of detail in the monitoring and the collected data. The data formats are also often different.**

(h) What are the main benefits of data exchange on the basin, sub-basin, part of a basin or group of basins? (*please describe*): **availability of up to date information, and decisions and management actions based on relevant data**

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?

	<i>Hydrological</i>	<i>Ecological</i>	<i>Chemical</i>
Border surface waters	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

	<i>Hydrological</i>	<i>Ecological</i>	<i>Chemical</i>
Surface waters in the entire basin	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Surface waters on the main watercourse	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Surface waters in part of the basin please describe [fill in]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transboundary aquifer(s) (connected or unconnected)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aquifer(s) in the territory of one riparian hydraulically connected to a transboundary river or lake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

National monitoring stations connected through a network or common stations

Please describe: [Finland and Sweden each do their own sampling at their national stations, but results are shared. Together these form a network that covers the transboundary basin.]

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: There are long time series data from 1960's, and reliable and comparable data from both countries.

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

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: There is an agreement between the national competent water authorities regarding delineation of the joint water bodies (along the border) and harmonization of status classification (ecological and chemical status) and common environmental objectives in accordance to the EU Water Framework Directive.

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? [The water quality standards of the Water Framework Directive are not harmonized with Finland, but with Norway they are.]

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*): Sweden has implemented several EU directives concerning hazards involving dangerous substances, monitoring of diffuse pollutants, and air quality (to reduce the airborne load of S and N).

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): **The joint body arranges discussion forums for the local and regional stakeholders, informs via various channels, raises awareness, and carries out projects for information coordination.**

Availability of information to the public

Consultation on planned measures or river basin management plans⁴

Public involvement

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

⁴ Or, where applicable, aquifer management plans.

2. RIVER KLARÄLVEN / TRYSILELVA

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

In Sweden: **Klarälven, in Norway Trysilelva**

List of the riparian States: **Norway and Sweden**

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:

Norway 44% (River Trysilelva 5230 km2)

Sweden 66% (River Klarälven 6590 km2)

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)

Norway-Sweden 2018: Agreement on cooperation 2018-2020 between the Swedish Agency for Marine and Water Management (Sweden) and the Environment Directorate (Norway) on water management in accordance with the EU Water Framework Directive. (Avtal om samarbete 2018-2020 mellan Havs- och vattenmyndigheten (Sverige) och Miljödirektoratet (Norge) om vattenförvaltning enligt EU:s ramdirektiv för vatten). A prolongation of the Agreement is planned and the terms will be decided at a meeting in September 2020.

Norway-Sweden 2011: the MoU from 2008 was developed into a Strategy for water management 2011-2012: Gränsvatten Norge och Sverige – Strategi för internationellt samarbete (Transboundary water Norway and Sweden – Strategy for international cooperation). (In Swedish).

Norway-Sweden 2008: A Memorandum of Understanding, describing the implementation of the WFD by the countries. Norway is not a EU member state but is voluntarily implementing IWRM according to the WFD. Since the Strategy from 2011 is based on this MoU, the MoU will not be addressed in questions 2-3 of Section II.

Norway-Sweden 1929: Convention between Sweden and Norway pertaining to certain issues concerning activities in water courses which affect water courses in the neighbouring country from 1929, <http://www.riksdagen.se/sv/dokument->

lagar/dokument/svensk-forfattningssamling/lag-1929404-om-giltighet-har-i-riket-av_sfs-1929-404

InterReg project “Vänerlaxens fria gång/Två länder – en älv” to reintroduce local salmon populations to the Trysil and Femund rivers in Norway and Klarälven in Sweden <https://tvalanderenelv.eu/>

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.

Norway – Sweden 2018 Agreement on cooperation 2018-2020

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 Agreement between Sweden and Norway covers all water management issues of transboundary interest, for example delineating of waterbodies and water districts, classifying ecological status, organising the consultation process, drawing water management plans and plans of measure, etc.**

The document is a common document for all basins shared between the two countries.

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): **Norway and Sweden**

(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: Four large aquifers (Kortlanda-Eda glasbruk, Lekvattnet-Rottneomon, SE681162-135429, Görälvssäsen)

(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*): Since the Agreement covers the whole subject of water management according to the EU WFD, all of the abovementioned topics may be included when necessary. Sweden has marked relevant subjects that have been topics for actual discussions after the signing of the 2008 MoU (the Strategy). How to develop “Data collection” and “Joint monitoring” is being discussed between the two countries both in general and for specific basins.

(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*): Minor challenges of a theoretical nature, such as, how to delineate waterbodies or classify ecological status in transboundary waters when the adjoining country has different standards or methods. Since Norway is not a member of the EU there is the minor challenge on the technicalities of aligning the Agreement with other water management programmes in Sweden. Lack of financial resources is one reason why there is no joint monitoring programme.

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

The Agreement from 2018 has led to a better formal structure for the collaboration between Norway and Sweden on the subject of transboundary basins, including yearly meetings and exchange of data. The keys to achieving success were several, the most important being a long tradition of cooperating on transboundary issues and both

countries organising their water management according to the EU Water Framework Directive.

The Agreement has been tried during a “pilot period” of two years. It will be prolonged and the conditions are now being discussed to be decided at a meeting in September. The meetings and information sharing during the first two years have given a shared picture of the water status in the transboundary watersheds.

(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*): A copy of the Agreement is attached

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): [

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*): **The Swedish Agency of Marine and Water Management and the Norwegian Environment Agency constitute the joint body for the Agreement.**

(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*): **Norway and Sweden** (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*): [fill in]
- (g) What are the tasks and activities of this joint body or mechanism?⁵
- | | |
|---|-------------------------------------|
| Identification of pollution sources | <input type="checkbox"/> |
| Data collection and exchange | <input checked="" type="checkbox"/> |
| Joint monitoring | <input type="checkbox"/> |
| Maintenance of joint pollution inventories | <input type="checkbox"/> |
| Setting emission limits | <input type="checkbox"/> |
| Elaboration of joint water quality objectives | <input checked="" type="checkbox"/> |
| Management and prevention of flood or drought risks | <input type="checkbox"/> |
| Preparedness for extreme events, e.g., common early warning and alarm procedures | <input type="checkbox"/> |
| Surveillance and early warning of water related disease | <input type="checkbox"/> |
| Water allocation and/or flow regulation | <input type="checkbox"/> |
| Policy development | <input checked="" type="checkbox"/> |
| Control of implementation | <input type="checkbox"/> |
| Exchange of experience between riparian States | <input checked="" type="checkbox"/> |
| Exchange of information on existing and planned uses of water and related installations | <input type="checkbox"/> |
| Settling of differences and conflicts | <input type="checkbox"/> |
| Consultations on planned measures | <input checked="" type="checkbox"/> |
| Exchange of information on best available technology | <input checked="" type="checkbox"/> |
| Participation in transboundary EIA | <input type="checkbox"/> |
| Development of river, lake or aquifer basin management or action plans | <input type="checkbox"/> |
| Management of shared infrastructure | <input type="checkbox"/> |
| Addressing hydromorphological alterations | <input checked="" type="checkbox"/> |
| Climate change adaptation | <input type="checkbox"/> |
| Joint communication strategy | <input type="checkbox"/> |
| Basin-wide or joint public participation and consultation of, for example, basin management plans | <input type="checkbox"/> |
| Joint resources to support transboundary cooperation | <input type="checkbox"/> |
| Capacity-building | <input type="checkbox"/> |
| Any other tasks (<i>please list</i>): [fill in] | |

⁵ 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.

(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*): **The cooperation is mainly free from difficulties, however Norway and Sweden are at different places in their water management cycles. There are also different national legal systems to harmonise, see reply to Question 2 e.**

(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 Agreement from 2018 stipulates at least two yearly meetings and communications with exchange of information. This has stimulated an ongoing discussion on monitoring and status classification between the countries.

(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? There are only two coastal States: Sweden and Norway, both riparian States and members of the cooperation mechanism.

Norwegian-Swedish Strategy for transboundary river basins (Water Framework Directive)

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 Strategy from 2011 as well as the Agreement from 2018 covers all water management issues of transboundary interest, for example delineating of waterbodies and water districts, classifying ecological status, organising the consultation process, drawing water management plans and plans of measure, etc.**

The strategy names and covers all of the transboundary river basins between Norway and Sweden. The document is a common document for all basins and aquifers shared between the two countries.

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): **[Norway and Sweden]**

(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: **Four large aquifers (Kortlanda-Eda glasbruk, Lekvattnet-Rottneumon, SE681162-135429, Görälvsåsen).**

(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*): Since the Strategy covers the whole subject of integrated water management according to the EU WFD, all of the abovementioned topics may be included when necessary. Sweden has marked relevant subjects that have been topics for actual discussions after the signing of the 2008 MoU (the Strategy). The topics “Data collection” and “Joint monitoring” are being discussed between the two countries both in general and for specific basins.

(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 | <input checked="" type="checkbox"/> |
| Aligning implementation of agreement or arrangement with regional laws, policies and programmes | <input type="checkbox"/> |
| Lack of financial resources | <input checked="" type="checkbox"/> |
| Insufficient human capacity | <input type="checkbox"/> |
| Insufficient technical capacity | <input type="checkbox"/> |
| Tense diplomatic relations | <input type="checkbox"/> |
| Non-participation of certain riparian countries in the agreement | <input type="checkbox"/> |
| No significant difficulties | <input type="checkbox"/> |

Other (*please describe*): **Minor challenges of a theoretical nature, such as, how to delineate waterbodies or classify ecological status in transboundary waters when the adjoining country has different standards or methods.**

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

The Strategy of 2008/2011 and the implementation of the EU WFD in both countries have led to a better understanding of the importance of Integrated Water Resource Management in whole river basins, also of exchange of knowledge about water quality and anthropogenic impact close to the border, and on the whole a better cooperation on transboundary water management.

The keys to success are, apart from centuries of good cooperation on shared resources, mainly that the Strategy contains practical advice and agreed-upon methods for example on assessment of water bodies and how information can be shared across the borders, especially at the regional level. In addition it creates a mutual understanding and basis for cooperation regarding the making, implementation and supervision of the water management plans and the division of basins and their classification.

(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*): **A copy of the Strategy was provided as a part of the first reporting exercise.**

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 | <input type="checkbox"/> |
| Bilateral commission | <input type="checkbox"/> |
| Basin or similar commission | <input type="checkbox"/> |

Expert group meeting or meeting of national focal points

Other (*please describe*): **The Swedish Agency for Marine and Water Management and the Norwegian Environment Agency constitute the joint body for the Norwegian-Swedish Strategy for transboundary river basins, in addition to representatives for the regional levels of water management in both countries.**

(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*): **Norway and Sweden**

(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*): **The Strategy is based on the requirements of the WFD and there are representatives from the local, regional and national level from both countries at meetings concerning the Strategy itself.**

(g) What are the tasks and activities of this joint body or mechanism?⁶

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

⁶ 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.

-
- 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*): **Cooperation on liming of acidified lakes and rivers and management of certain transboundary fish species.**

(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): **The cooperation is mainly free from difficulties**

(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? **Mutual agreement on reporting status of the transboundary basins within the EU's Water Framework Directive and to further establish cooperation between the countries on a regional level.**

(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? **There are only two coastal States: Sweden and Norway, both riparian States and members of the cooperation mechanism.***

1929 Convention between Sweden and Norway pertaining to certain issues concerning activities in water courses which affect water courses in the neighbouring country

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 convention between Norway and Sweden of 1929 encompass all transboundary basins between the countries, concerning some aspects of the use of transboundary water that may affect the amount of water or the quality of the water in the neighbouring country.**

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): **[Norway and Sweden]**

(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?

The Convention from 1929 which has been included in the legislation of both countries regulates the duty of each country to inform the other if actions are planned that will cause physical changes or other impact on the water of the other country. It also establishes the rights of the countries to endorse such actions. The law was instituted during a period with high development of hydropower while watercourses were still needed for logging and other transports.

(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*): http://www.riksdagen.se/sv/dokument-lagar/dokument/svensk-forfattningssamling/lag-1929404-om-giltighet-har-i-riket-av_sfs-1929-404

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): The Convention has been implemented in Swedish legislation for almost a century. It does not stipulate a joint body but sets out procedures of notifications between the countries.

Where there is a joint body or mechanism

Further questions removed as insignificant for the Convention from 1929

Agreement between Sweden and Norway to reintroduce local salmon populations to the Trysil and Femund rivers in Norway and Klarälven in Sweden through the InterReg projects “Vänerlaxens fria gang” (2010-2014) and “Två länder – en älv” (2017-2021)

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? InterReg Projects “Vänerlaxens fria gang” and “Två länder – en älv” (Free migration of the lake Vänern salmon” and Two countries – one river”) concern the rivers Klarälven/Trysilelva and Femundelva, a tributary to Trysilelva on the Norwegian side.

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*): [Norway and Sweden]

- (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): **The InterReg project's goal is to reintroduce local salmon populations in specific rivers in Norway and Sweden and promote sustainable fishing.**

(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*): **The InterReg project goal is to increase ecological status in the complex river system Femund-Trysil-Klarälven to improve conditions for indigenous subspecies of salmon and brown trout. Some of the most important measures are to reintroduce the species to the upper parts of the system, to remove obstacles for fish migration, and to adapt hydropower plants and facilities to environmental demands.**

(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*): **Any dialogue with the energy sector that suggests lowering the production of hydropower plants to increase fish migration or reproduction will be difficult. But all in all the difficulties have been minor. The project has been successful and some good compromises have been reached.**

(f) What are the main achievements in implementing the agreement or arrangement and what were the keys to achieving such success? **The goal of the project is to reintroduce the local salmon, through cooperative measures on both sides of the border. One key to success was an early involvement of the stakeholders and local communities.**

(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://tvalanderenelv.eu/>

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):

Where there is a joint body or mechanism

The project is run in cooperation by representatives of the regional water management, County Governor of Inlandet (Norway) and the County Administrative Board of Värmland (Sweden) with participants from fishing NGOs and local communities from both countries. Link to the Water Council for the River Klarälven at the County Administrative Board of Värmland: <https://karlstad.se/Miljo-och-Energi/sjoar-vattendrag-grundvatten/Vattenvard/Klaralvens-vattenrad/>

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: The Norwegian-Swedish Strategy for transboundary water as well as the Agreement on cooperation regulate the cooperation and set joint objectives for all shared basins and aquifers between the countries.

The Agreement also lists the differences in assessment, waterbody delineation and characterization that should be addressed for the transboundary waters in terms of the Water Framework Directive. The main conclusion is that the principles of the downstream country should be used. The national management plans for the international river basins can only be approved for the territory in the country that has written the plans, but the plans are available for public hearing in both countries.

The Law (1929:404) on validity in Sweden of the Swedish-Norwegian Convention on Water Impact and Measures is an old convention that regulates the duty of each country to inform the other if actions are planned that will cause physical changes or other impact on the water of the other country. It also establishes the rights of the countries to endorse such actions. The law was instituted during a period with high development of hydropower while watercourses were still needed for logging and other transports.

The InterReg projects on the restoration of salmon (Vänerlaxens fria gang and Two countries – one river) have set joint objectives within its area of concern for Klarälven/Trysilelva, identified where there is a need for more knowledge, and which measures can be suggested to reintroduce and improve conditions for the salmon populations in the shared basin. Various reports have been written.

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*): Protected areas are designated for drinking water sources in surface waters and inflow areas for aquifers.

There are several Natura2000 areas and other forms of protection for species and biotopes in parts of the basin (for example for the Freshwater Pearl Mussel, *Margaritifera margaritifera*).

Sand and gravel extraction and forestry are activities strongly regulated by laws in both countries.

Cooperation between the two countries is also visible in various projects concerning the reintroduction and protection of salmon populations

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): **The Agreement stipulates two yearly meetings of the joint body, that is between experts within the agencies Swedish Agency for Marine and Water Management and the Norwegian Environmental Directorate. One meeting is designed to information sharing with executives of both organisations.**

There are also meetings and information exchange between municipalities and regional county boards.

- (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:

Swedish open databases with data on the Swedish side of all shared basins:
<http://viss.lansstyrelsen.se/> and <http://miljodata.slu.se/mvm/>

(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*): There is no common database for transboundary waterbodies in the neighbouring country in our national database. However, data is open and free for all in both countries and there are no difficulties in exchanging data. There is good data exchange at the regional and local level.

(h) What are the main benefits of data exchange on the basin, sub-basin, part of a basin or group of basins? (*please describe*): Data exchange permits better cooperation and ensures that an overall assessment of the ecological and chemical status of the waterbody is made on both sides of the border. This enables us to suggest appropriate measures and coordinate efforts in improving and protecting our transboundary waterbodies.

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?

	<i>Hydrological</i>	<i>Ecological</i>	<i>Chemical</i>
Border surface waters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in the entire basin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters on the main watercourse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in part of the basin please describe [fill in]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transboundary aquifer(s) (connected or unconnected)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aquifer(s) in the territory of one riparian hydraulically connected to a transboundary river or lake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

National monitoring stations connected through a network or common stations

Please describe: [fill in]

Joint and agreed methodologies

Please describe: [fill in]

Joint sampling

Please describe: [fill in]

Common monitoring network

Please describe: [fill in]

Common agreed parameters

Please describe: [fill in]

(c) Please describe the main achievements regarding joint monitoring, if any: [fill in]

(d) Please describe any difficulties experienced with joint monitoring: [fill in]

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

Yes /No

If yes, please provide the date of the last or only assessment, the frequency and scope (e.g., surface waters or groundwaters only, pollution sources, etc.) of the assessment, and assessment methodology applied: Sweden and Norway meet regularly at the regional level to discuss water management and exchange information pursuant to the Agreement from 2018. During the last planning process, January 2020 the environmental objectives were reviewed. Meetings at the regional level occur more frequently in order to exchange local information.

National authorities exchanged data in 2017 on transboundary watercourses in connection with reporting to WISE, the WFD database run by the European Environment Agency

The InterReg project on the Vänerlaxen salmon also has joint objectives, and designs a programme of measures for endangered species. The project administration (project group and reference group) have met regularly, several times a year.

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? The water quality standards are in accordance with the Water Framework Directive.

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*): Sweden has implemented several EU directives concerning hazards involving dangerous substances, monitoring of diffuse pollutants, and air quality (to reduce the airborne load of S and N).

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 a 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 plans⁷



Public involvement



Other (*please specify*): The InterReg projects for re-introduction of salmon to the upper parts of the rivers Klarälven/Trysilelva have a participation programme with engagement from stakeholders in hydropower companies, fishing organizations and local communities.

According to the Water Framework Directive, programmes of measures are shared with all relevant water councils in the basin, often as referrals, which is also the case in the basin Klarälven/Trysilelva.

⁷ Or, where applicable, aquifer management plans.

3. RIVER ENNINGDALSÄLVEN (Enningdal River)

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

List of the riparian States:[Sweden and Norway]

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: **Enningdalsälven, 780 km². Sweden has 70% of the basin or 554 km².**

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) [fill in]

Norway-Sweden 2018: Agreement on cooperation 2018-2020 between the Swedish Agency for Marine and Water Management (Sweden) and the Environment Directorate (Norway) on water management in accordance with the EU Water Framework Directive. (Avtal om samarbete 2018-2020 mellan Havs- och vattenmyndigheten (Sverige) och Miljödirektoratet (Norge) om vattenförvaltning enligt EU:s ramdirektiv för vatten). A prolongation of the Agreement is planned and the terms will be decided at a meeting in September 2020.

Norway-Sweden 2011: the MoU from 2008 was developed into a Strategy for water management 2011-2012: Gränsvatten Norge och Sverige – Strategi för internationellt samarbete (Transboundary water Norway and Sweden – Strategy for international cooperation). (In Swedish).

Norway-Sweden 2008: A Memorandum of Understanding, describing the implementation of the WFD by the countries. Norway is not a EU member state but is voluntarily implementing IWRM according to the WFD. Since the Strategy from 2011 is based on this MoU, the MoU will not be addressed in questions 2-3 of Section II.

Norway-Sweden 1929: Convention between Sweden and Norway pertaining to certain issues concerning activities in water courses which affect water

courses in the neighbouring country from 1929,
http://www.riksdagen.se/sv/dokument-lagar/dokument/svensk-forfattningssamling/lag-1929404-om-giltighet-har-i-riket-av_sfs-1929-404

2010 Agreement between Norway and Sweden concerning management of salmon and trout in river Enningdalsälven and the coastal areas Svinesund and Iddefjorden. <https://lovdata.no/dokument/TRAKTAT/traktat/2010-03-09-6?q=svinesund%20iddefjorden>

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: The Enningdalsälven did have a designated joint body, a transboundary Water Council, with regular meetings and representatives from both countries. It has not been active for more than five years but is supposedly starting up again in the autumn of 2020.

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.

Norway – Sweden 2018 Agreement on cooperation 2018-2020

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 Agreement between Sweden and Norway covers all water management issues of transboundary interest, for example delineating of waterbodies and water districts, classifying ecological status, organising the consultation process, drawing water management plans and plans of measure, etc.*

The document is a common document for all basins shared between the two countries.

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): *[Norway and Sweden]*

(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: The Agreement covers aquifers, but no aquifers in this basin

(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*): Since the Agreement covers the whole subject of water management according to the EU WFD, all of the abovementioned topics may be included when necessary. Sweden has marked relevant subjects that have been topics for actual discussions after the signing of the 2008 MoU (the Strategy). The topics "Data collection" and "Joint monitoring" are being discussed between the two countries both general, and for specific basins.

(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*): Minor challenges of a theoretical nature, such as, how to delineate waterbodies or classify ecological status in transboundary waters when the adjoining country has different standards or methods. Since Norway is not a member of the EU there is an ongoing minor challenge on the technicalities of aligning the Agreement with other water management programmes in Sweden. Lack of financial resources is one reason why there is no joint monitoring programme.

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

The Agreement from 2018 provides a formal platform for the collaboration between Norway and Sweden on the subject of transboundary basins under EU's Water Framework Directive (WFD).

The Agreement has been tried during a "pilot period" of two years. It will be prolonged and the procedure is now being discussed. The meetings and information sharing during the first two years have given a shared picture of the water status in the transboundary watersheds.

(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*): **A copy of the Agreement is attached**

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*): **The Swedish Agency of Marine and Water Management and the Norwegian Environment Agency constitute the joint body for the Agreement.**

(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*): **Norway and Sweden**

(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*): [fill in]
- (g) What are the tasks and activities of this joint body or mechanism?⁸
- 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
 - 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

⁸ 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.

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*): **The cooperation is mainly free from difficulties, however Norway and Sweden are at different places in their water management cycles. There are also different national legal systems to harmonise, see reply to Question 2 e.**

(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 Agreement from 2018 stipulates at least two yearly meetings and communications with exchange of information. This has stimulated an ongoing discussion on monitoring and status classification between the countries.

(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? There are only two coastal States: Sweden and Norway, both riparian States and members of the cooperation mechanism.

Norwegian-Swedish Strategy for transboundary river basins (Water Framework Directive)

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 Strategy from 2011 covers all water management issues of transboundary interest, for example delineating of waterbodies and water districts, classifying ecological status, organising the consultation process, drawing water management plans and plans of measure, etc.**

The strategy names and covers all of the transboundary river basins between Norway and Sweden. The document is a common document for all basins shared between the two countries.

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): **Norway and Sweden**

(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: **The Strategy covers management of transboundary aquifers in general, but no aquifers in this basin are transboundary**

(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*): **Since the Strategy covers the whole subject of integrated water management according to the EU WFD, all of the abovementioned topics may be included when necessary. Sweden has marked relevant subjects that have been topics for**

actual discussions after the signing of the 2008 MoU (the Strategy). The topics “Data collection” and “Joint monitoring” are being discussed between the two countries both in general and for specific basins.

(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 | <input checked="" type="checkbox"/> |
| Aligning implementation of agreement or arrangement with regional laws, policies and programmes | <input type="checkbox"/> |
| Lack of financial resources | <input checked="" type="checkbox"/> |
| Insufficient human capacity | <input type="checkbox"/> |
| Insufficient technical capacity | <input type="checkbox"/> |
| Tense diplomatic relations | <input type="checkbox"/> |
| Non-participation of certain riparian countries in the agreement | <input type="checkbox"/> |
| No significant difficulties | <input type="checkbox"/> |

Other (*please describe*): **Minor challenges of a theoretical nature, such as, how to delineate waterbodies or classify ecological status in transboundary waters when the adjoining country has different standards or methods.**

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

The Strategy of 2008/2011 and the implementation of the EU WFD in both countries have led to a better understanding of the importance of Integrated Water Resource Management in whole river basins, also of exchange of knowledge about water quality and anthropogenic impact close to the border, and on the whole a better cooperation on transboundary water management.

The keys to success are, apart from centuries of good cooperation on shared resources, mainly that the Strategy contains practical advice and agreed-upon methods for example on assessment of water bodies and how information can be shared across the borders, especially at the regional level. In addition it creates a mutual understanding and basis for cooperation regarding the making, implementation and supervision of the water management plans and the division of basins and their classification.

(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*): **A copy of the Strategy is attached 3**

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): [

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 | <input type="checkbox"/> |
| Bilateral commission | <input type="checkbox"/> |

Basin or similar commission

Expert group meeting or meeting of national focal points

Other (*please describe*): **The Swedish Agency for Marine and Water Management and the Norwegian Environment Agency constitute the joint body for the Norwegian-Swedish Strategy for transboundary river basins, in addition to representatives for the regional levels of water management in both countries.**

(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*): **Norway and Sweden**

(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*): **The strategy is based on the requirements of the WFD and there are representatives from the local, regional and national level from both countries at meetings concerning the strategy itself.**

(g) What are the tasks and activities of this joint body or mechanism?⁹

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

⁹ 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.

-
- 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*): **Cooperation on liming of acidified lakes and rivers and management of certain transboundary fish species.**

(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): **The cooperation is mainly free from difficulties,**

(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? **Mutual agreement on reporting status of the transboundary basins within the EU's Water Framework Directive and to further establish cooperation between the countries on a regional level.**

(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? **There are only two coastal States: Sweden and Norway, both riparian States and members of the cooperation mechanism.***

1929 Convention between Sweden and Norway pertaining to certain issues concerning activities in water courses which affect water courses in the neighbouring country

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 convention between Norway and Sweden of 1929 encompass all transboundary basins between the countries, concerning some aspects of the use of transboundary water that may affect the amount of water or the quality of the water in the neighbouring country.**

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): **Norway and Sweden**

(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?

The Convention from 1929 which has been included in the legislation of both countries regulates the duty of each country to inform the other if actions are planned that will cause physical changes or other impact on the water of the other country. It also establishes the rights of the countries to endorse such actions. The law was instituted during a period with high development of hydropower while watercourses were still needed for logging and other transports.

(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*): http://www.riksdagen.se/sv/dokument-lagar/dokument/svensk-forfattningssamling/lag-1929404-om-giltighet-har-i-riket-av_sfs-1929-404

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): The Convention has been implemented in Swedish legislation for almost a century. It does not stipulate a joint body but sets out procedures of notifications between the countries.

Where there is a joint body or mechanism

Further questions removed as insignificant for the Convention from 1929

2010 Agreement between Norway and Sweden concerning management of salmon and trout in river Enningdalsälven and the coastal areas Svinesund and Iddefjorden

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 agreement between Norway and Sweden concerning management of salmon and trout only covers the waterbodies Svinesund, Iddefjorden and Enningsdalsälven.

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*): Norway and Sweden

- (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*):

(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*): **The agreement is implemented in Swedish legislation and concerns fishing of salmon and trout in river Enningdalsälven and the aforementioned coastal waterbodies.**

(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*):

(f) What are the main achievements in implementing the agreement or arrangement and what were the keys to achieving such success? **The agreement ensures a joint management of the stocks of salmon and trout in the transboundary waterbodies.**

(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://lovdata.no/dokument/TRAKTAT/traktat/2010-03-09-6?q=svinesund%20iddefjorden>]

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): **The agreement is implemented through Swedish and Norwegian law.**

Where there is a joint body or mechanism

Further questions removed as insignificant for the Agreement.

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: [The Norwegian-Swedish Strategy for transboundary water as well as the Agreement on cooperation regulate the cooperation and set joint objectives for all shared basins and aquifers between the countries.

The Agreement also lists the differences in assessment, waterbody delineation and characterization that should be addressed for the transboundary waters in terms of the Water Framework Directive. The main conclusion is that the principles of the downstream country should be used. The national management plans for the international river basins can only be approved for the territory in the country that has written the plans, but the plans are available for public hearing in both countries.

The Law (1929:404) on validity in Sweden of the Swedish-Norwegian Convention on Water Impact and Measures is an old convention that regulates the duty of each country to inform the other if actions are planned that will cause physical changes or other impact on the water of the other country. It also establishes the rights of the countries to endorse such actions. The law was instituted during a period with high development of hydropower while watercourses were still needed for logging and other transports.

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*): Ongoing measures for the Enningdalälven basin:

Protected areas are designated for drinking water sources in surface waters and inflow areas for aquifers.

There are several Natura2000 areas and other forms of protection for species and biotopes in parts of the basin (for example for the Freshwater Pearl Mussel, *Margaritifera margaritifera*).

Sand and gravel extraction and forestry are activities strongly regulated by laws in both countries.

Cooperation between the two countries is also visible in various projects concerning the protection of salmon populations (for example liming as a measure against the effects of acidification)

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): **The Agreement stipulates two yearly meetings of the joint body, that is experts within the agencies Swedish Agency for Marine and Water Management and the Norwegian Environmental Directorate. One meeting is designed to information sharing with executives of both organisations.**

There are also regular meetings and information exchange between municipalities and regional county boards.

(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:

Swedish open databases with data on the Swedish side of all shared basins: <http://viss.lansstyrelsen.se/> and <http://miljodata.slu.se/mvm/>

(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*): **There is no common database for transboundary waterbodies in the neighbouring country in our national database. However, data is open and free for all in both countries and there are no difficulties in exchanging data. There is good data exchange at the regional and local level.**

(h) What are the main benefits of data exchange on the basin, sub-basin, part of a basin or group of basins? (*please describe*): **Data exchange permits better cooperation and ensures that an overall assessment of the ecological and chemical status of the waterbody is made on both sides of the border. This enables us to suggest appropriate measures and coordinate efforts in improving and protecting our transboundary waterbodies.**

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?

	<i>Hydrological</i>	<i>Ecological</i>	<i>Chemical</i>
Border surface waters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in the entire basin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters on the main watercourse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in part of the basin please describe [fill in]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transboundary aquifer(s) (connected or unconnected)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aquifer(s) in the territory of one riparian hydraulically connected to a transboundary river or lake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

National monitoring stations connected through a network or common stations

Please describe: [fill in]

Joint and agreed methodologies

Please describe: [fill in]

Joint sampling

Please describe: [fill in]

Common monitoring network

Please describe: [fill in]

Common agreed parameters

Please describe: [fill in]

(c) Please describe the main achievements regarding joint monitoring, if any: [fill in]

(d) Please describe any difficulties experienced with joint monitoring: [fill in]

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

Yes /No

If yes, please provide the date of the last or only assessment, the frequency and scope (e.g., surface waters or groundwaters only, pollution sources, etc.) of the assessment, and assessment methodology applied: During the years 2008 – 2011, Sweden and Norway carried out a common project to establish cooperation in the Enningdalsälven river basin. The aim was joint management of the the basin and the river mouth, and resulted in coordinated monitoring, a plan for fish and water management, common water quality standards, and joint liming of acidified lakes and river. The results from the project have been the basis for the Programme of Measures according to the WFD in the basin.

Sweden and Norway meet regularly at the regional level to discuss water management and exchange information pursuant to the Agreement from 2018. During the last planning process, January 2020 the environmental objectives were reviewed. Meetings at the regional level occur more frequently in order to exchange local information.

National authorities exchanged data in 2017 on transboundary watercourses in connection with reporting to WISE, the WFD database run by the European Environment Agency

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? The water quality standards are in accordance with the Water Framework Directive.

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): Sweden has implemented several EU directives concerning hazards involving dangerous substances, monitoring of diffuse pollutants, and air quality (to reduce the airborne load of S and N).

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 a 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 plans¹⁰

Public involvement

Other (*please specify*): [fill in] **According to the Water Framework Directive, programmes of measures are shared with all relevant water councils in the basin, often as referrals, which is also the case in the basin Enningdalsälven.**

¹⁰ Or, where applicable, aquifer management plans.

4. Other river basins shared with Norway: Group 1 outflow in Sweden

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

Group 1 are 12 basins with sources in Norway and outflows in Sweden: Luleälven, Piteälven, Skellefteälven, Umeälven, Ångermanälven, Indalsälven, Ljusnan, Dalälven, Norsälven, Byälven, Upperdalsälven, Strömsån

List of the riparian States: **Sweden and Norway**

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: **96,0 %**

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)

Norway-Sweden 2018: Agreement on cooperation 2018-2020 between the Swedish Agency for Marine and Water Management (Sweden) and the Environment Directorate (Norway) on water management in accordance with the EU Water Framework Directive. (Avtal om samarbete 2018-2020 mellan Havs- och vattenmyndigheten (Sverige) och Miljödirektoratet (Norge) om vattenförvaltning enligt EU:s ramdirektiv för vatten). A prolongation of the Agreement is planned and the terms will be decided at a meeting in September 2020.

Norway-Sweden 2011: Strategy for water management 2011-2012: Gränsvatten Norge och Sverige – Strategi för internationellt samarbete (Transboundary water Norway and Sweden – Strategy for international cooperation). (In Swedish). The Strategy was developed on the MoU from 2008 and is presently undergoing revision following the meeting between the national and regional representatives from Norway and Sweden in January 2020.

Norway-Sweden 2008: A Memorandum of Understanding, describing the implementation of the WFD by the countries. Norway is not a EU member state but is voluntarily implementing IWRM according to the WFD. Since the Strategy from 2011 is based on this MoU, the MoU will not be addressed in questions 2-3 of Section II.

Norway-Sweden 1929: Convention between Sweden and Norway pertaining to certain issues concerning activities in water courses which affect water courses in the neighbouring country from 1929, http://www.riksdagen.se/sv/dokument-lagar/dokument/svensk-forfattningssamling/lag-1929404-om-giltighet-har-i-riket-av_sfs-1929-404

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:

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.

Norway – Sweden 2018 Agreement on cooperation 2018-2020

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 Agreement from 2018 covers all water management issues of transboundary interest, for example delineating of waterbodies and water districts, classifying ecological status, organising the consultation process, drawing water management plans and plans of measure, etc.

This document is a common documents for all basins shared between the two countries, and so render specific written agreements unnecessary for each particular river or lake.

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): **Sweden and Norway**

(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: **SE664534-130215 (Kortlanda-Eda glasbruk), SE668576-131918 (Lekvattnet-Rottneumon), SE681162-135429, SE679503-384592 (Görälvsåsen)**

(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*): Since the Agreement covers the whole subject of water management according to the EU WFD, all of the abovementioned topics may be included when necessary. Sweden has marked relevant subjects that have been topics for actual discussions after the signing of the 2008 MoU (the Strategy). How to develop “Data collection” and “Joint monitoring” is being discussed between the two countries both general, and for specific basins.

(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*): Challenges have been minor and usually of a theoretical nature, such as, how to delineate waterbodies or classify ecological status in transboundary waters when the adjoining country has different standards or methods. These difficulties are usually addressed bilaterally within the structure of the Agreement and the Strategy.

For this group of large rivers, originating in the Norwegian mountains and running through Sweden to the Bothnian Sea/Bothnian Bay, almost 100% of the anthropogenic impact comes from drivers in Sweden, for example forestry, agriculture, mining, and other industries near the coast.

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

The Agreement from 2018 has led to a better formal structure for the collaboration between Norway and Sweden on the subject of transboundary basins, including yearly meetings and exchange of data. The keys to achieving success were several, the most important being a long tradition of cooperating on transboundary issues and both countries organising their water management according to the EU Water Framework Directive.

The Agreement has been tried during a “pilot period” of two years. It will be prolonged and the conditions are now being discussed to be decided at a meeting in September. The meetings and information sharing during the first two years have given a shared picture of the water status in the transboundary watersheds.

(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*): A copy of the Agreement is attached

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): [

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*): [The Swedish Agency for Marine and Water Management and the Norwegian Environment Agency constitute the joint body for the agreement.]

(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*): [Sweden and Norway]

(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*): [fill in]

(g) What are the tasks and activities of this joint body or mechanism?¹¹

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

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

¹¹ 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 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*):

(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*): **The cooperation is mainly free from difficulties, however Norway and Sweden are at different places in their water management cycles and will sometimes make different priorities when it comes to monitoring, measures, etc. There are also different legal systems to harmonise.**

(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 Agreement from 2018 stipulates at least two yearly meetings and communications with exchange of information. This has stimulated an ongoing discussion on monitoring and status classification between the countries.

(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? **There are only two coastal States: Sweden and Norway, both riparian States and members of the cooperation mechanism.**

Norwegian-Swedish Strategy for transboundary river basins (Water Framework Directive)

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 strategy names and covers all of the transboundary basins between Norway and Sweden.

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): **Norway, Sweden**

(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: **SE664534-130215 (Kortlanda-Eda glasbruk), SE668576-131918 (Lekvattnet-Rottneon), SE681162-135429, SE679503-384592 (Görälvssäsen)**

(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*): **The strategy concerns all water uses under EU's Water Framework Directive (WFD), as it is implemented in Swedish legislation.**

(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*): Since the Strategy covers the whole subject of integrated water management according to the EU WFD, all of the abovementioned topics may be included when necessary. Sweden has marked relevant subjects that have been topics for actual discussions after the signing of the 2008 MoU (the Strategy). The topics “Data collection” and “Joint monitoring” are being discussed between the two countries both in general and for specific basins.

(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?

The Strategy of 2008/2011 and the implementation of the EU WFD in both countries have led to a better understanding of the importance of Integrated Water Resource Management in whole river basins, also of exchange of knowledge about water quality and anthropogenic impact close to the border, and on the whole a better cooperation on transboundary water management.

The keys to success are, apart from centuries of good cooperation on shared resources, mainly that the Strategy contains practical advice and agreed-upon methods for example on assessment of water bodies and how information can be shared across the borders, especially at the regional level. In addition it creates a mutual understanding and basis for cooperation regarding the making, implementation and supervision of the water management plans and the division of basins and their classification.

(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*): A copy of the Strategy is attached

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*): **The Swedish Agency for Marine and Water Management and the Norwegian Environment Agency constitute the joint body for the Norwegian-Swedish Strategy for transboundary river basins, in addition to representatives for County Boards' units for water management in both countries.**

(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*): **Norway and Sweden**

(d) Are there any riparian States that are not members of the joint body or mechanism? **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*): **The strategy is based on the requirements of the WFD and there are representatives from the local, regional and national level from both countries at meetings concerning the strategy itself.**

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

Identification of pollution sources

Data collection and exchange

Joint monitoring

Maintenance of joint pollution inventories

¹² 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.

-
- 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*): **Cooperation on liming of acidified lakes and rivers and management of certain transboundary fish species.**

(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*): **The cooperation is mainly free from difficulties**

(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?

Mutual agreement on reporting status of the transboundary basins within the EU's Water Framework Directive and to further establish cooperation between the countries on a regional level, for instance with data sharing

(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? **There are only two coastal States: Sweden and Norway, both riparian States and members of the cooperation mechanism.***

1929 Convention between Sweden and Norway pertaining to certain issues concerning activities in water courses which affect water courses in the neighbouring country

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 convention between Norway and Sweden of 1929 encompasses all transboundary basins in Norway and Sweden, concerning some aspects of the use of transboundary water that may affect the amount of water or the quality of the water in the neighbouring country.**

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): **Norway, Sweden**

(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):

(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? **The Convention from 1929 which has been included in the legislation of both countries regulates the duty of each country to inform the other if actions are planned that will cause physical changes or other impact on the water of the other country. It also establishes the rights of the countries to endorse such actions. The law was instituted during a period with**

high development of hydropower while watercourses were still needed for logging and other transports.

(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*): http://www.riksdagen.se/sv/dokument-lagar/dokument/svensk-forfattningssamling/lag-1929404-om-giltighet-har-i-riket-av_sfs-1929-404

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): The convention is implemented in Swedish legislation and does not call for a joint body, but sets out procedures of notifications between the countries.

Further questions removed as not significant for the Convention from 1929

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:

The Norwegian-Swedish Strategy for transboundary water as well as the Agreement on cooperation regulate the cooperation and set joint objectives for all shared basins and aquifers between the countries.

The Agreement also lists the differences in assessment, waterbody delineation and characterization that should be addressed for the transboundary waters in terms of the Water Framework Directive. The main conclusion is that the principles of the downstream country should be used. The national management plans for the international river basins can only be approved for the territory in the country that has written the plans, but the plans are available for public hearing in both countries.

The Law (1929:404) on validity in Sweden of the Swedish-Norwegian Convention on Water Impact and Measures is an old convention that regulates the duty of each country to inform the other if actions are planned that will cause physical changes or other impact on the water of the other country. It also establishes the rights of the countries to endorse such actions. The law was instituted during a period with high development of hydropower while watercourses were still needed for logging and other transports.

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*):

Protected areas are designated for drinking water sources in surface waters and inflow areas for aquifers.

There are several Natura2000 areas, national parks, natural reserves, and other forms of protection for species and biotopes in parts of the basin.

Sand and gravel extraction and forestry are activities strongly regulated by laws in both countries.

Cooperation between the two countries is also visible in various projects concerning the protection of salmon populations (for example liming as a measure against the effects of acidification)

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): **The Agreement from 2018 stipulates two yearly meetings of the joint body, that is experts within the agencies Swedish Agency for Marine and Water Management and the Norwegian Environmental Directorate. One meeting is designed to information sharing with executives of both organisations.**

There are also regular meetings and information exchange between municipalities and regional county boards.

- (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:
According to the Nordic Saami Convention of 2017 (being re-written in 2020) the Sámi people have the rights to water and other natural resources within their land, which covers areas of northern Sweden, Norway, and Finland. There are often Sámi representatives in for example Water Councils and information written in Sámi language is distributed when relevant.

(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: **Swedish national databases:**

<http://viss.lansstyrelsen.se/>

<http://miljodata.slu.se/mvm/>

(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*): **There is no common database or possibility for viewing data for transboundary waterbodies in the neighbouring country in our national database. But there are no difficulties in exchanging data. There is good data exchange at the regional and local level. However, it is easier to find and to share water quality data than information about planned measures or development. This is especially true in the transboundary areas of these rivers, since they are low-populated and mountainous.**

(h) What are the main benefits of data exchange on the basin, sub-basin, part of a basin or group of basins? (*please describe*): **Data exchange permits overall better cooperation. Data exchange permits better cooperation and ensures that an overall assessment of the ecological and chemical status of the waterbody is made on both sides of the border. This enables us to suggest appropriate measures and coordinate efforts in improving and protecting our transboundary waterbodies.**

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?

	<i>Hydrological</i>	<i>Ecological</i>	<i>Chemical</i>
Border surface waters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in the entire basin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	<i>Hydrological</i>	<i>Ecological</i>	<i>Chemical</i>
Surface waters on the main watercourse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in part of the basin please describe [fill in]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transboundary aquifer(s) (connected or unconnected)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aquifer(s) in the territory of one riparian hydraulically connected to a transboundary river or lake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

National monitoring stations connected through a network or common stations

Please describe: [fill in]

Joint and agreed methodologies

Please describe: [fill in]

Joint sampling

Please describe: [fill in]

Common monitoring network

Please describe: [fill in]

Common agreed parameters

Please describe: [fill in]

(c) Please describe the main achievements regarding joint monitoring, if any: [fill in]

(d) Please describe any difficulties experienced with joint monitoring: [fill in]

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

Yes /No

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

Sweden and Norway meet regularly at the regional level to discuss water management in the terms of the Water Framework Directive. During the last planning process, January 2020 the environmental objectives were reviewed. Meetings at the regional level occur more frequently in order to exchange information.

National authorities exchanged data in 2017 on transboundary water courses in connection with reporting to WISE, the WFD database run by the European Environment Agency

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?
The water quality standards used in transboundary basins are in accordance with the Water Framework Directive.

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): Sweden has implemented several EU directives concerning hazards involving dangerous substances, monitoring of diffuse pollutants, and air quality (to reduce the airborne load of S and N).

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 | <input type="checkbox"/> |
| Water user groups or associations | <input type="checkbox"/> |
| Academic or research institutions | <input type="checkbox"/> |
| Other non-governmental organizations | <input type="checkbox"/> |
| General public | <input type="checkbox"/> |
| Other (please specify): There are often Sámi representatives in Water Councils in the mountain areas of northern Sweden/Norway. | |
| Availability of information to the public | <input checked="" type="checkbox"/> |
| Consultation on planned measures or river basin management plans ¹³ | <input checked="" type="checkbox"/> |
| Public involvement | <input checked="" type="checkbox"/> |
| Other (<i>please specify</i>): [fill in] | |

¹³ Or, where applicable, aquifer management plans.

5. Other basins shared with Norway: Group 2, outflow in Norway

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

Group 2 are 20 basins with sources in Sweden and outflows in Norway: Haldenvassdraget, Glommavassdraget, Nidelvvassdraget, Stjørdalsvassdraget, Verdalsvassdraget, Vefsna, Røssåga, Bjerka, Ranavassdraget, Saltdalsvassdraget, Sulitjelmavassdraget, Fagerbakkvassdraget, Laksåga, Sørfjordelva, Hellemovassdraget, Storelva, Skjomavassdraget, Salangselva, Målselvvassdraget, Signaldalelva]

List of the riparian States: Sweden and Norway

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: 3,5 %

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)

Norway-Sweden 2018: Agreement on cooperation 2018-2020 between the Swedish Agency for Marine and Water Management (Sweden) and the Environment Directorate (Norway) on water management in accordance with the EU Water Framework Directive. (Avtal om samarbete 2018-2020 mellan Havs- och vattenmyndigheten (Sverige) och Miljödirektoratet (Norge) om vattenförvaltning enligt EU:s ramdirektiv för vatten). A prolongation of the Agreement is planned and the terms will be decided at a meeting in September 2020.

Norway-Sweden 2011: Strategy for water management 2011-2012: Gränsvatten Norge och Sverige – Strategi för internationellt samarbete (Transboundary water Norway and Sweden – Strategy for international cooperation). (In Swedish). The Strategy was developed on the MoU from 2008 and is presently undergoing revision following the meeting between the national and regional representatives from Norway and Sweden in January 2020.

Norway-Sweden 2008: A Memorandum of Understanding, describing the implementation of the WFD by the countries. Norway is not a EU member state but is voluntarily implementing IWRM according to the WFD. Since the Strategy from

2011 is based on this MoU, the MoU will not be addressed in questions 2-3 of Section II.

Norway-Sweden 1929: Convention between Sweden and Norway pertaining to certain issues concerning activities in water courses which affect water courses in the neighbouring country from 1929, http://www.riksdagen.se/sv/dokument-lagar/dokument/svensk-forfattningssamling/lag-1929404-om-giltighet-har-i-riket-av_sfs-1929-404

arrangement is under development Agreement or
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:

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.

Norway – Sweden 2018 Agreement on cooperation 2018-2020

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]

The Agreement from 2018 covers all water management issues of transboundary interest, for example delineating of waterbodies and water districts, classifying ecological status, organising the consultation process, drawing water management plans and plans of measure, etc.

These documents are common documents for all basins shared between the two countries, and so render specific written agreements unnecessary for each particular river or lake.

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): **Sweden and Norway**

(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: SE664534-130215 (Kortlanda-Eda glasbruk), SE668576-131918 (Lekvattnet-Rottneimon), SE681162-135429, SE679503-384592 (Görälvsåsen)

(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*): Since the Agreement covers the whole subject of water management according to the EU WFD, all of the abovementioned topics may be included when necessary. Sweden has marked relevant subjects that have been topics for actual discussions after the signing of the 2008 MoU (the Strategy). How to develop “Data collection” and “Joint monitoring” is being discussed between the two countries both general, and for specific basins.

(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*): Challenges have been minor and usually of a theoretical nature, such as, how to delineate waterbodies or classify ecological status in transboundary waters when the adjoining country has different standards or methods. These difficulties are usually addressed bilaterally within the structure of the Agreement and the Strategy.

For this group of rivers, originating in the Swedish mountains and running through Norway to the Atlantic, almost 100% of the anthropogenic impact comes from Norway.

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

The Agreement from 2018 has led to a better formal structure for the collaboration between Norway and Sweden on the subject of transboundary basins, including yearly meetings and exchange of data. The keys to achieving success were several, the most important being a long tradition of cooperating on transboundary issues and both countries organising their water management according to the EU Water Framework Directive.

The Agreement has been tried during a “pilot period” of two years. It will be prolonged and the conditions are now being discussed to be decided at a meeting in September. The meetings and information sharing during the first two years have given a shared picture of the water status in the transboundary watersheds.

(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*): A copy of the Agreement is attached

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): [

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*): [The Swedish Agency for Marine and Water Management and the Norwegian Environment Agency constitute the joint body for the agreement.]

(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*): Sweden and Norway

(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*): [fill in]

(g) What are the tasks and activities of this joint body or mechanism?¹⁴

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

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

¹⁴ 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 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*):

(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*): **The cooperation is mainly free from difficulties, however Norway and Sweden are at different places in their water management cycles and will sometimes make different priorities when it comes to monitoring, measures, etc. There are also different legal systems to harmonise.**

(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 Agreement from 2018 stipulates at least two yearly meetings and communications with exchange of information. This has stimulated an ongoing discussion on monitoring and status classification between the countries.

(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? There are only two coastal States: Sweden and Norway, both riparian States and members of the cooperation mechanism.

Norwegian-Swedish Strategy for transboundary river basins (Water Framework Directive)

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 strategy names and covers all of the transboundary basins between Norway and Sweden.

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): **Norway, Sweden**

(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: **SE664534-130215 (Kortlanda-Eda glasbruk), SE668576-131918 (Lekvattnet-Rottneimon), SE681162-135429, SE679503-384592 (Görälvssäsen)**

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

- | | |
|-------------------------------|-------------------------------------|
| All water uses | <input checked="" type="checkbox"/> |
| A single water use or sector | <input type="checkbox"/> |
| Several water uses or sectors | <input type="checkbox"/> |

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

Water uses or sectors

- | | |
|------------------------------|--------------------------|
| Industry | <input type="checkbox"/> |
| Agriculture | <input type="checkbox"/> |
| Transport (e.g., navigation) | <input type="checkbox"/> |

-
- Households
 - Energy: hydropower and other energy types
 - Fisheries
 - Tourism
 - Nature protection

Other (*please list*): **The strategy concerns all water uses under EU's Water Framework Directive (WFD), as it is implemented in Swedish legislation.**

(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*): **Since the Strategy covers the whole subject of integrated water management according to the EU WFD, all of the abovementioned topics may be included when necessary. Sweden has marked relevant subjects that have been topics for actual discussions after the signing of the 2008 MoU (the Strategy). The topics “Data collection” and “Joint monitoring” are being discussed between the two countries both in general and for specific basins.**

(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?

The Strategy of 2008/2011 and the implementation of the EU WFD in both countries have led to a better understanding of the importance of Integrated Water Resource Management in whole river basins, also of exchange of knowledge about water quality and anthropogenic impact close to the border, and on the whole a better cooperation on transboundary water management.

The keys to success are, apart from centuries of good cooperation on shared resources, mainly that the Strategy contains practical advice and agreed-upon methods for example on assessment of water bodies and how information can be shared across the borders, especially at the regional level. In addition it creates a mutual understanding and basis for cooperation regarding the making, implementation and supervision of the water management plans and the division of basins and their classification.

(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*): **A copy of the Strategy is attached**

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): **The Swedish Agency for Marine and Water Management and the Norwegian Environment Agency constitute the joint body for the Norwegian-Swedish Strategy for transboundary river basins, in addition to representatives for County Boards' units for water management in both countries.**

(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): **Norway and Sweden**

(d) Are there any riparian States that are not members of the joint body or mechanism? **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): **The strategy is based on the requirements of the WFD and there are representatives from the local, regional and national level from both countries at meetings concerning the strategy itself.**

(g) What are the tasks and activities of this joint body or mechanism?¹⁵

- Identification of pollution sources
- Data collection and exchange

¹⁵ 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*): **Cooperation on liming of acidified lakes and rivers and management of certain transboundary fish species.**

(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*): **The cooperation is mainly free from difficulties**

(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?

Mutual agreement on reporting status of the transboundary basins within the EU's Water Framework Directive and to further establish cooperation between the countries on a regional level, for instance with data sharing

(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]

1929 Convention between Sweden and Norway pertaining to certain issues concerning activities in water courses which affect water courses in the neighbouring country

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 convention between Norway and Sweden of 1929 encompasses all transboundary basins in Norway and Sweden, concerning some aspects of the use of transboundary water that may affect the amount of water or the quality of the water in the neighbouring country.**

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): **Norway, Sweden**

(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*):

(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? **The Convention from 1929 which has been included in the legislation of both countries regulates the duty of each country to inform the other if actions are planned that will cause physical changes or other impact on the water of the other country. It also establishes the rights of the countries to endorse such actions. The law was instituted during a period with**

high development of hydropower while watercourses were still needed for logging and other transports.

(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*): http://www.riksdagen.se/sv/dokument-lagar/dokument/svensk-forfattningssamling/lag-1929404-om-giltighet-har-i-riket-av_sfs-1929-404

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): The convention is implemented in Swedish legislation and does not call for a joint body, but sets out procedures of notifications between the countries.

Further questions under 3 removed as not significant for the Convention from 1929

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:

The Norwegian-Swedish Strategy for transboundary water as well as the Agreement on cooperation regulate the cooperation and set joint objectives for all shared basins and aquifers between the countries.

The Agreement also lists the differences in assessment, waterbody delineation and characterization that should be addressed for the transboundary waters in terms of the Water Framework Directive. The main conclusion is that the principles of the downstream country should be used. The national management plans for the international river basins can only be approved for the territory in the country that has written the plans, but the plans are available for public hearing in both countries.

The Law (1929:404) on validity in Sweden of the Swedish-Norwegian Convention on Water Impact and Measures is an old convention that regulates the duty of each country to inform the other if actions are planned that will cause physical changes or other impact on the water of the other country. It also establishes the rights of the countries to endorse such actions. The law was instituted during a period with high development of hydropower while watercourses were still needed for logging and other transports.

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*):

Protected areas are designated for drinking water sources in surface waters and inflow areas for aquifers.

There are several Natura2000 areas, national parks, natural reserves, and other forms of protection for species and biotopes in parts of the basin.

Sand and gravel extraction and forestry are activities strongly regulated by laws in both countries.

Cooperation between the two countries is also visible in various projects concerning the protection of salmon populations (for example liming as a measure against the effects of acidification)

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): **The Agreement from 2018 stipulates two yearly meetings of the joint body, that is experts within the agencies Swedish Agency for Marine and Water Management and the Norwegian Environmental Directorate. One meeting is designed to information sharing with executives of both organisations.**

(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:
 According to the Nordic Saami Convention of 2017 (being re-written in 2020) the Sámi people have the rights to water and other natural resources within their land, which covers areas of northern Sweden, Norway, and Finland. There are often Sámi representatives in for example Water Councils and information written in Sámi language is distributed when relevant.

(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: Swedish national databases:

<http://viss.lansstyrelsen.se/>

<http://miljodata.slu.se/mvm/>

(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): There is no common database or possibility for viewing data for transboundary waterbodies in the neighbouring country in our national database. But there are no difficulties in exchanging data. There is good data exchange at the regional and local level. However, it is easier to find and to share water quality data than information about planned measures or development. This is especially true in the transboundary areas of these rivers, since they are low-populated and mountainous.

(h) What are the main benefits of data exchange on the basin, sub-basin, part of a basin or group of basins? (please describe): Data exchange permits overall better cooperation. Data exchange permits better cooperation and ensures that an overall assessment of the ecological and chemical status of the waterbody is made on both sides of the border. This enables us to suggest appropriate measures and coordinate efforts in improving and protecting our transboundary waterbodies.

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?

	Hydrological	Ecological	Chemical
Border surface waters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in the entire basin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters on the main watercourse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	<i>Hydrological</i>	<i>Ecological</i>	<i>Chemical</i>
Surface waters in part of the basin please describe [fill in]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transboundary aquifer(s) (connected or unconnected)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aquifer(s) in the territory of one riparian hydraulically connected to a transboundary river or lake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

National monitoring stations connected through a network or common stations

Please describe: [fill in]

Joint and agreed methodologies

Please describe: [fill in]

Joint sampling

Please describe: [fill in]

Common monitoring network

Please describe: [fill in]

Common agreed parameters

Please describe: [fill in]

(c) Please describe the main achievements regarding joint monitoring, if any: [fill in]

(d) Please describe any difficulties experienced with joint monitoring: [fill in]

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

Yes /No

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

Sweden and Norway meet regularly at the regional level to discuss water management in the terms of the Water Framework Directive. During the last planning process, January 2020 the environmental objectives were reviewed. Meetings at the regional level occur more frequently in order to exchange information.

National authorities exchanged data in 2017 on transboundary water courses in connection with reporting to WISE, the WFD database run by the European Environment Agency

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?

The water quality standards used in transboundary basins are in accordance with the Water Framework Directive.

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*): Sweden has implemented several EU directives concerning hazards involving dangerous substances, monitoring of diffuse pollutants, and air quality (to reduce the airborne load of S and N).

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): **There are often Sámi representatives in Water Councils and other areas of cooperation in the mountain areas of northern Sweden and Norway.**

Availability of information to the public

Consultation on planned measures or river basin management plans¹⁶

Public involvement

Other (*please specify*):

¹⁶ Or, where applicable, aquifer management plans.

6. Large aquifers shared with Norway

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

SE664534-130215 (Kortlanda-Eda glasbruk)

SE668576-131918 (Lekvattnet-Rottnemon)

SE681162-135429

SE679503-384592 (Görälvsåsen)

List of the riparian States: **Sweden and Norway**

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: **All aquifers are connected to rivers and lakes**
- Unknown

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

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)

Norway-Sweden 2018: Agreement on cooperation 2018-2020 between the Swedish Agency for Marine and Water Management (Sweden) and the Environment Directorate (Norway) on water management in accordance with the EU Water Framework Directive. (Avtal om samarbete 2018-2020 mellan Havs- och vattenmyndigheten (Sverige) och Miljödirektoratet (Norge) om vattenförvaltning enligt EU:s ramdirektiv för vatten). A prolongation of the Agreement is planned and the terms will be decided at a meeting in September 2020.

Norway-Sweden 2011: Strategy for water management 2011-2012: Gränsvatten Norge och Sverige – Strategi för internationellt samarbete (Transboundary water Norway and Sweden – Strategy for international cooperation). (In Swedish). The Strategy was developed on the MoU from 2008 and is presently undergoing revision following the meeting between the national and regional representatives from Norway and Sweden in January 2020.

Norway-Sweden 2008: A Memorandum of Understanding, describing the implementation of the WFD by the countries. Norway is not a EU member state but is voluntarily implementing IWRM according to the WFD. Since the Strategy from 2011 is based on this MoU, the MoU will not be addressed in questions 2-3 of Section II.

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:

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.

Norway – Sweden 2018 Agreement on cooperation 2018-2020

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 Agreement from 2018 covers all water management issues of transboundary interest, for example delineating of waterbodies and water districts, classifying ecological status, organising the consultation process, drawing water management plans and plans of measure, etc.

These documents are common documents for all basins including aquifers shared between the two countries, and so render specific written agreements unnecessary for each particular water body.

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): [Sweden and Norway]

(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: See above

(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*): Challenges have been minor and usually of a theoretical nature, such as, how to delineate waterbodies or classify ecological status in transboundary waters when the adjoining country has different standards or methods. These difficulties are usually addressed bilaterally within the structure of the Agreement and the Strategy.

A general challenge when working with aquifers is to find them, to map and to quantify them. This is no easy work along such a long, mountainous and unpopulated border as that between Sweden and Norway. This is also the reason why only four major aquifers have been included into this reporting: they are monitored and well known. There are for certain other aquifers, and any management of them is also included in the Agreement from 2011 as well as the Strategy from 2018.

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

The Agreement from 2018 has led to a better formal structure for the collaboration between Norway and Sweden on the subject of transboundary basins, including yearly meetings and exchange of data. The keys to achieving success were several, the most important being a long tradition of cooperating on transboundary issues and both countries organising their water management according to the EU Water Framework Directive.

(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*): **A copy of the Agreement is attached.**

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): [

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*): **The Swedish Agency for Marine and Water Management and the Norwegian Environment Agency constitute the joint body for the agreement.**

(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*): [**Sweden and Norway**]

(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*): [fill in]

-
- (g) What are the tasks and activities of this joint body or mechanism?¹⁷
- | | |
|---|-------------------------------------|
| Identification of pollution sources | <input type="checkbox"/> |
| Data collection and exchange | <input checked="" type="checkbox"/> |
| Joint monitoring | <input type="checkbox"/> |
| Maintenance of joint pollution inventories | <input type="checkbox"/> |
| Setting emission limits | <input type="checkbox"/> |
| Elaboration of joint water quality objectives | <input checked="" type="checkbox"/> |
| Management and prevention of flood or drought risks | <input type="checkbox"/> |
| Preparedness for extreme events, e.g., common early warning and alarm procedures | <input type="checkbox"/> |
| Surveillance and early warning of water related disease | <input type="checkbox"/> |
| Water allocation and/or flow regulation | <input type="checkbox"/> |
| Policy development | <input checked="" type="checkbox"/> |
| Control of implementation | <input type="checkbox"/> |
| Exchange of experience between riparian States | <input checked="" type="checkbox"/> |
| Exchange of information on existing and planned uses of water and related installations | <input checked="" type="checkbox"/> |
| Settling of differences and conflicts | <input type="checkbox"/> |
| Consultations on planned measures | <input checked="" type="checkbox"/> |
| Exchange of information on best available technology | <input type="checkbox"/> |
| Participation in transboundary EIA | <input type="checkbox"/> |
| Development of river, lake or aquifer basin management or action plans | <input type="checkbox"/> |
| Management of shared infrastructure | <input type="checkbox"/> |
| Addressing hydromorphological alterations | <input checked="" type="checkbox"/> |
| Climate change adaptation | <input type="checkbox"/> |
| Joint communication strategy | <input type="checkbox"/> |
| Basin-wide or joint public participation and consultation of, for example, basin management plans | <input type="checkbox"/> |
| Joint resources to support transboundary cooperation | <input type="checkbox"/> |
| Capacity-building | <input type="checkbox"/> |
- Any other tasks (*please list*):
- (h) What are the main difficulties and challenges that your country faces with the operation of the joint body or mechanism, if any?

¹⁷ 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.

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*): **The cooperation is mainly free from difficulties, however Norway and Sweden are at different places in their water management cycles and will sometimes make different priorities when it comes to monitoring, measures, etc. There are also different legal systems to harmonise.**

(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 Agreement from 2018 stipulates at least two yearly meetings and communications with exchange of information. This has stimulated an ongoing discussion on monitoring and status classification between the countries.

(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? **There are only two coastal States: Sweden and Norway, both riparian States and members of the cooperation mechanism.***

Norwegian-Swedish Strategy for transboundary river basins (Water Framework Directive)

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 Strategy names and covers all of the transboundary basins between Norway and Sweden including aquifers.

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): **Norway, Sweden**

(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: **See above**

(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)*: **The Strategy concerns all water uses under EU's Water Framework Directive (WFD), as it is implemented in Swedish legislation.**

(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?

The Strategy of 2008/2011 and the implementation of the EU WFD in both countries have led to a better understanding of the importance of Integrated Water Resource Management in whole river basins, also of exchange of knowledge about water quality and anthropogenic impact close to the border, and on the whole a better cooperation on transboundary water management.

The keys to success are, apart from centuries of good cooperation on shared resources, mainly that the Strategy contains practical advice and agreed-upon methods for example on assessment of water bodies and how information can be shared across the borders, especially at the regional level. In addition it creates a mutual understanding and basis for cooperation regarding the making, implementation and supervision of the water management plans and the division of basins and their classification.

(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*): **A copy of the Strategy is attached**

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*): **The Swedish Agency for Marine and Water Management and the Norwegian Environment Agency constitute the joint body for the Norwegian-Swedish Strategy for transboundary river basins, in addition to representatives for County Boards' units for water management in both countries.**

(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*): **Norway and Sweden**

(d) Are there any riparian States that are not members of the joint body or mechanism? **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*): **The strategy is based on the requirements of the WFD and there are representatives from the local, regional and national level from both countries at meetings concerning the strategy itself.**

(g) What are the tasks and activities of this joint body or mechanism?¹⁸

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

¹⁸ 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.

-
- 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*): **The cooperation is mainly free from difficulties**

(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?
 Mutual agreement on reporting status of the transboundary basins within the EU's Water Framework Directive and to further establish cooperation between the countries on a regional level, for instance with data sharing

(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? There are only two coastal States: Sweden and Norway, both riparian States and members of the cooperation mechanism.

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:

The Norwegian-Swedish Strategy for transboundary water as well as the Agreement on cooperation regulate the cooperation and set joint objectives for all shared basins and aquifers between the countries.

The Agreement also lists the differences in assessment, waterbody delineation and characterization that should be addressed for the transboundary waters in terms of the Water Framework Directive. The main conclusion is that the principles of the downstream country should be used. The national management plans for the international river basins can only be approved for the territory in the country that has written the plans, but the plans are available for public hearing in both countries.

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*):

Protected areas are designated for drinking water sources in inflow areas for aquifers.

There are several protected areas for the protection of groundwater dependent habitats and species in for example natural springs.

-
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): **The Agreement from 2018 stipulates two yearly meetings of the joint body, that is experts within the agencies Swedish Agency for Marine and Water Management and the Norwegian Environmental Directorate. One meeting is designed to information sharing with executives of both organisations.**

- (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: **According to the Nordic Saami Convention of 2017 (being re-written in 2020) the Sámi people have the rights to water and other natural resources within their land, which covers areas of northern Sweden, Norway, and Finland. There are often Sámi representatives in for example Water Councils and information written in Sámi language is distributed when relevant.**

- (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: **The Swedish Geological Survey is datahost for groundwater data (<https://www.sgu.se/grundvatten/>), however sampling sites are protected and cannot be viewed by the public.**

Aquifer maps can be found at the Swedish national database VISS:
<http://viss.lansstyrelsen.se/>

(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*): There are usually no difficulties in exchanging groundwater data. There is good data exchange at the regional and local level. However, it is easier to find and to share water quality data than information about planned measures or development. This is especially true for these aquifers, since the areas are low-populated and mountainous.

(h) What are the main benefits of data exchange on the basin, sub-basin, part of a basin or group of basins? (*please describe*): Data exchange permits overall better cooperation. Measures can be coordinated and performed with better accuracy. Shared data means that both impact and measures are “out in the open” and it becomes clear to all parties if there is impact on the quality or quantity of water.

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?

	<i>Hydrological</i>	<i>Ecological</i>	<i>Chemical</i>
Border surface waters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in the entire basin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters on the main watercourse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in part of the basin please describe [fill in]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transboundary aquifer(s) (connected or unconnected)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aquifer(s) in the territory of one riparian hydraulically connected to a transboundary river or lake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

- National monitoring stations connected through a network or common stations
- Please describe:* [fill in]
- Joint and agreed methodologies

Please describe: [fill in]

Joint sampling

Please describe: [fill in]

Common monitoring network

Please describe: [fill in]

Common agreed parameters

Please describe: [fill in]

(c) Please describe the main achievements regarding joint monitoring, if any: [fill in]

(d) Please describe any difficulties experienced with joint monitoring: [fill in]

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

Yes /No

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

Sweden and Norway meet regularly at the regional level to discuss water management in the terms of the Water Framework Directive. During the last planning process, January 2020 the environmental objectives were reviewed. Meetings at the regional level occur more frequently in order to exchange information.

National authorities exchanged data in 2017 on transboundary water courses in connection with reporting to WISE, the WFD database run by the European Environment Agency

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? The water quality standards used in transboundary basins are in accordance with the Water Framework Directive.

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*): Sweden has implemented several EU directives concerning hazards involving dangerous substances, monitoring of diffuse pollutants, and air quality (to reduce the airborne load of S and N).

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): **There are often Sámi representatives in Water Councils in the mountain areas of northern Sweden/Norway.**

Availability of information to the public

Consultation on planned measures or river basin management plans¹⁹

Public involvement

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

¹⁹ Or, where applicable, aquifer management plans.

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.

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

The Swedish Environmental Code (1998:808) contains provisions in chapter 6 on EIA/SEA.

The Act on transboundary arrangements concerning the Torne river "Lag (2010:897) om gränsöverskott mellan Sverige och Finland" governs environmental transboundary issues of the Torne river.

There are separate arrangements with Norway as well as with Finland concerning transboundary water management. This is regulated in the Swedish environmental Code chapter 5 as well as in ordinance 2004:660.

The EU Water Framework Directive is also implemented in Swedish law through the Swedish Water Quality Management Ordinance 2004:660.

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

Precautionary principle Yes /No

Polluter pays principle Yes /No

Sustainable development Yes /No

User pays principle Yes /No

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

Those principles are embedded in the Swedish Environmental Code and its related ordinances. The principle of sustainable development is one of the main objectives of the Code in chapter 1, § 1 and the precautionary principle is found in chapter 2 among the general rules of consideration as well as the polluter pays principle. The user pays principle can be seen in the legislation concerning municipal drinking water supply or sanitation services where the cost of the infrastructure shall be borne by the user.

- (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):

In Sweden we have a robust legal system concerning environmental law including regulations on water management including waste water discharges and other point source pollution. The Swedish Environmental code from 1999 establishes provisions for protection of all areas of the environment both on land and in the water. The Environmental Code is a major piece of legislation. The Code contains 33 chapters comprising almost 500 sections.

However, it is only the fundamental environmental rules that are included in the Environmental Code. More detailed provisions are laid down in ordinances made by the Government and regulations issued by governmental authorities. Depending on the size of the activity the licensing or permitting system varies. The Environmental Code includes general principles that always shall be taken into account, such as i.a. the application of the precautionary principle, provisions on environmental impact assessment, supervision, authorisation of activities etc.

The actual authorization for certain activities /operations is carried out by the municipalities, the county administrative boards and by specialized land and environmental courts. For example the permitting procedure for mining operations take place in the land and environmental courts. Permissions that are granted are always accompanied with the terms and precautionary conditions that the permitting organ has found necessary, including emission limits based on the best available technology. This goes for all sectors and activities (except for those deemed insignificant in size and impact).

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

(d) Are the authorized discharges monitored and controlled?

Yes /No

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

Monitoring of discharges

Monitoring of physical and chemical impacts on water

Monitoring of ecological impacts on water

Conditions on permits

Inspectorate

Other means (please list):

In most cases the operator is responsible for the monitoring according to the conditions of the granted permit (obligation of self-monitoring) and has to report to the supervising authorities.

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*): “Sedimentation traps” means constructed small wetlands designed for phosphorus retention. “Chemical measures” means structural liming of soils.

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 | <input type="checkbox"/> |
| Advanced irrigation techniques | <input type="checkbox"/> |
| Demand management activities | <input type="checkbox"/> |
| Other means (please list) | <input type="checkbox"/> |

(g) Does your country apply the ecosystems approach?

Yes /No

If yes, please describe how: Water status is identified and classified according to the biological factors of water bodies. All water management is integrated (IWRM) according to the EU water framework directive and the impact from human activities in the drainage area is quantified.

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

Yes /No

If yes, please briefly describe the most important measures: Drinking water aquifers are protected by law and have designated protected areas. Anthropogenic impact on groundwater such as salinification, acidification, pesticides, heavy metals, etc, is monitored in a system of representative aquifers.

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.

Sweden has implemented the UNECE Espoo convention and its protocol on SEA. The Swedish Environmental Code chapter 6 on EIA incl SEA is the way Sweden has implemented the Espoo convention in national legislation.

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: **Large areas of all transboundary basins are sparsely populated, mountainous, and often far from roads, which makes measures and monitoring difficult and expensive.**

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: **The permanent secretariat of the Torne River commission is a central point for water cooperation between Finland and Sweden. With Norway, the cooperation has increased due to the demands for IWRM within the WFD, which is also in line with SDG 6.5.**

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:
The questionnaire was completed by a working group at the Swedish Agency for Marine and Water Management. Consultative meetings were held over Skype with our neighbouring countries Norway and Finland. The Administrative County Boards with transboundary waters and the Finnish-Swedish Transboundary River Commission were also consulted about the answers in Part II.

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*): [Agenda 2030 team at SwAM, Agenda.2030@havochvatten.se]

Date: [2020-06-30 (initial submission); 2020-12-17 (final revised submission)]
Signature: [Agenda 2030 team at SwAM]

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