# Reporting on global SDG indicator 6.5.2

# **TEMPLATE** of the second cycle for reporting

# **Content of the template**

The template is divided into four parts:

- Section I Calculation of SDG indicator 6.5.2
- Section II Information on each transboundary basin or group of basins

Transboundary basins or groups of basins reported in this document

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- Section III General information on transboundary water management at the national level
- Section IV Final questions

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

#### Calculation of indicator 6.5.2

- 7. Please list in the tables below the transboundary basins (rivers and lakes and aquifers) in your country's territory and provide the following information for each of them:
  - (a) The country/ies with which the basin is shared;
- (b) The surface area of the basin (the catchment of rivers or lakes and the aquifer in the case of groundwater) within the territory of your country (in square kilometres (km²));
- (c) Whether a map and/or a geographical information system (GIS) shapefile of the basin has been provided;
  - (d) Whether there is an arrangement in force for the basin;
  - (e) The verification of each of the four criteria to assess operationality;

<sup>&</sup>lt;sup>a</sup> 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)

Name of transboundary river or lake basin/sub-basin	It is a basin or a sub-basin? <sup>b</sup>	Countries shared with	Surface area of the basin/ sub-basin (in km²) 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 I 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 km²) covered by an operational arrangement within the territory of the country
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

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

Name of transboundary river or lake basin/sub-basin	It is a basin or a sub-basin? <sup>b</sup>	Countries shared with	Surface area of the basin/ sub-basin (in km²) 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 I 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 km²) covered by an operational arrangement within the territory of the country
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
Målselvvassdraget	Basin group 2	Norway	227	no	Entirely	YES	YES	YES	YES	227

Name of transboundary river or lake basin/sub-basin Signaldalelva	It is a basin or a sub-basin? b  Basin group 2	Countries shared with Norway	of the	*	Covered by an arrangement (entirely, partly, no) (Ref. to questions in sect. II)	Criterion 1 applied (yes/no) (Ref. to questions in sect. II)	applied (yes/no) (Ref. to questions in	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 km²) covered by an operational arrangement within the territory of the country
	basiii group 2	Norway	49	по	Entirely	I ES	I ES	I ES	I ES	
(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)** 

		Surface area of the aquifer (in km²) within the territory	Map and/ or GIS shapefile	Covered by an aquifer specific arrangement (entirely, partly, no)	Covered within an arrangement not specific to the aquifer (entirely, partly, no) (Ref. to	Criterion I applied (yes/no) (Ref. to	Criterion 2 applied (yes/no) (Ref. to	Criterion 3 applied (yes/no) (Ref. to	Criterion 4 applied (yes/no) (Ref. to	Surface area of the aquifer (in km²) covered by an operational arrange-ment within the territory
Name of the transboundary aquifer	Countries shared with	of the country	provided (yes/no)	questions in sect. II)	questions in sect. II)	questions in sect. II)	questions in sect. II)	questions in sect. II)	questions in sect. II)	of the country
Kortlanda-Eda glasbruk (in the district of	Norway	40.0	Yes	No	Entirely	Yes	Yes	Yes	Yes	40.0
Västerhavet)		13,8								13,8
Lekvattnet- Rottnemon (in the district of	Norway		Yes	No	Entirely	Yes	Yes	Yes	Yes	
Västerhavet)		9,3								9,3
SE681162-135429 (in the district of	Norway		Yes	No	Entirely	Yes	Yes	Yes	Yes	
Bottenhavet)		26,2								26,2
Görälvsåsen (in the district of Bottenhavet)	Norway		Yes	No	Entirely	Yes	Yes	Yes	Yes	
		4,3								4,3
(C) Sub-total: surface area of	f transboundary									53,6

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

<sup>&</sup>lt;sup>d</sup> In the text of the agreement or arrangement or in the practice.

Name of the transboundary aquifer aquifers covered by oper	Countries shared with	Surface area of the aquifer (in km²) 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)	within an arrangement not specific to the aquifer (entirely, partly, no) (Ref. to questions in sect. II)	Criterion I 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)	of the aquifer (in km²) covered by an operational arrangement within the territory of the country
arrangements (in km²) (D) Total surface area of tranaquifers (in km²)	nsboundary	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 gränsälvsöverenskommelsen). 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 Miljödirektoratet (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. In some instances, you may provide information on both a basin and one or more of its sub-basins or parts thereof, for example, where you have agreements or arrangements on both the basin and its sub-basin. You may coordinate your responses with other States with which your country shares transboundary waters, or even prepare a joint report. General information on transboundary water management at the national level should be provided in section III and not repeated here.

# 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 aguifer connected to a river or lake  $\Box$ 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 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  $\boxtimes$ Agreement or arrangement developed but not in force 

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

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.

	Agree	ment or arrangement developed, but not in force for all riparians	
		e insert the name of the agreement(s) or arrangement(s) Agreement lad and Sweden Concerning Transboundary Rivers	oetween
		vedish: Lag (2010:897) om gränsälvsöverenskommelse mellan Sver ad. Svensk författningssamling 2010:897	ige och
	http://	www.fsgk.se/Finnish-Swedish-Transboundary-Rivers-Agreement-2009	).pdf
		urrent agreement entered into force on 1 October 2010, replacing an agreen the two countries concluded in 1971.	reement
	Agree	ment or arrangement is under development	
	No ag	reement or arrangement	
		re is no agreement or arrangement or it is not in force, please explain ot and provide information on any plans to address the situation: [fill is	
transl questi	bounda ion 4; i	no agreement or arrangement and no joint body or mechanism ary basin, sub-basin, part of a basin or group of basins then just there is no agreement or arrangement, but a joint body or mechanism 3.	ump to
	gemen	and 3 to be completed for each bilateral or multilateral agreen t in force in the transboundary basin, sub-basin, part of a basin of	
2.	(a)	Does this agreement or arrangement specify the area subject to cooper	ation?
	Yes 🛭	☑/No □	
	If yes,	does it cover the entire basin or group of basins and all riparian States?	?
	Yes [	]/No 🔀	
	main r	ional explanations? About 0,5% of the basin area is in Norway, however ivers is in Norway, the area is very sparsely inhabited, and there are no genic impact in the Norwegian area.	-
	Or, if the basin?	the agreement or arrangement relates to a sub-basin, does it cover the en	tire sub-
	Yes [	]/No []	
	Additi	ional explanations? [fill in]	
		n States (including your own) are bound by the agreement or arrange list): Finland and Sweden	gement?
	(b) does i	If the agreement or arrangement relates to a river or lake basin or sult also cover aquifers?	b-basin,
	Yes 🛭	☑/No □	
	ximate	s, please list the aquifers covered by the agreement or arrangly 200 groundwater bodies in the river Torne basin are delineated a ding to the Water Framework Directive.	-
	(c)	What is the sectoral scope of the agreement or arrangement?	
		All water uses	$\boxtimes$
		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 agre arrangement?	ement or
Procedural and institutional issues	
Dispute and conflict prevention and resolution	
Institutional cooperation (joint bodies)	$\boxtimes$
Consultation on planned measures	$\boxtimes$
Mutual assistance	$\boxtimes$
Topics of cooperation	
Joint vision and management objectives	$\boxtimes$
Joint significant water management issues	$\boxtimes$
Navigation	
Human health	$\boxtimes$
Environmental protection (ecosystem)	$\boxtimes$
Water quality	$\boxtimes$
Water quantity or allocation	$\boxtimes$
Cooperation in addressing floods	$\boxtimes$
Cooperation in addressing droughts	
Climate change adaptation	$\boxtimes$
Monitoring and exchange	
Joint assessments	$\boxtimes$
Data collection and exchange	$\boxtimes$
Joint monitoring	$\boxtimes$
Maintenance of joint pollution inventories	$\boxtimes$
Elaboration of joint water quality objectives	$\boxtimes$

	Common early warning and alarm procedures	$\boxtimes$
	Exchange of experience between riparian States	$\boxtimes$
	Exchange of information on planned measures	$\boxtimes$
	Joint planning and management	
	Development of joint regulations on specific topics	$\boxtimes$
	Development of international or joint river, lake or aquifer basin management or action plans	$\boxtimes$
	Management of shared infrastructure	
	Development of shared infrastructure	
information i	Other ( <i>please list</i> ): Joint measures to increase public awareness n five languages, meetings, seminars.)	(written
(e) agreer	What are the main difficulties and challenges that your country faces ment or arrangement and its implementation, if any?	with the
	Aligning implementation of agreement or arrangement with national laws, policies and programmes	$\boxtimes$
	Aligning implementation of agreement or arrangement with regional laws, policies and programmes	
	Lack of financial resources	$\boxtimes$
	Insufficient human capacity	$\boxtimes$
	Insufficient technical capacity	
	Tense diplomatic relations	
	Non-participation of certain riparian countries in the agreement	
	No significant difficulties	$\boxtimes$
implementati	Other (please describe): There are no significant difficultie on of agreement with the EU Water Framework Directive. Monitor	

uninhabited areas to prevent illegal fishing. Multi language basin which requires written information in five languages.

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

Yes ⊠/No □

- 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 gränsälvsöverenskommelse 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?

If no, why no	ot? (please explain): [fill in]	
Where ther	e is a joint body or mechanism	
(a) (plea	If there is a joint body or mechanism, which kind of joint body <i>se tick one</i> )?	or mechanism
	Plenipotentiaries	
	Bilateral commission	$\boxtimes$
	Basin or similar commission	
	Expert group meeting or meeting of national focal points	
	Other (please describe): [fill in]	

	(b) basin,	Does the joint body or mechanism cover the entire transboundary bas part of a basin or group of basins?	in, sub-
Yes 🗵	/No [		
	(c) mecha	Which States (including your own) are members of the joint banism? ( <i>Please list</i> ): Finland and Sweden	ody or
	(d) mecha	Are there any riparian States that are not members of the joint banism? (please list): Norway	oody or
	(e) the join	If not all riparian States are members of the joint body or mechanism he int body or mechanism cooperate with them?	ow does
		No cooperation	
		They have observer status	$\boxtimes$
		Other ( <i>please describe</i> ): Norway will be informed about decisions that, however, while about 0,5% of the upper basin area is in Norway, no ers or lakes included in the agreement are Norwegian.	
	(f) tick th	Does the joint body or mechanism have any of the following features to enes applicable)?	(please
		A secretariat	$\boxtimes$
		If the secretariat is a permanent one, is it a joint secretariat of does each country host its own secretariat? (Please describe): A joint secretariat, situated on the Swedish side of the twin towns Haparanda-which are divided only by the river.	
		A subsidiary body or bodies	
		Please list (e.g., working groups on specific topics): [fill in]	
for wa as wel	ter issu l as on perman	Other features ( <i>please list</i> ): Each Party appoints three members for a fixed time period, one of them from the government authority respues and one from the municipality in the area of application of the Agre or several deputy members for each member. Each Party may appoint experts to assist the Commission. The Commission may also us	consible eement, nt up to
	(g)	What are the tasks and activities of this joint body or mechanism? <sup>3</sup>	
		Identification of pollution sources	$\boxtimes$
		Data collection and exchange	$\boxtimes$
		Joint monitoring	
		Maintenance of joint pollution inventories	$\boxtimes$
		Setting emission limits	
		Elaboration of joint water quality objectives	
		Management and prevention of flood or drought risks	$\boxtimes$
		Preparedness for extreme events, e.g., common early warning	

<sup>&</sup>lt;sup>3</sup> This may include tasks according to the agreement or tasks added by the joint body, or its subsidiaries. Both tasks which joint bodies coordinate and tasks which they implement should be included.

	and alarm procedures	$\boxtimes$
	Surveillance and early warning of water related disease	$\boxtimes$
	Water allocation and/or flow regulation	$\boxtimes$
	Policy development	$\boxtimes$
	Control of implementation	$\boxtimes$
	Exchange of experience between riparian States	$\boxtimes$
	Exchange of information on existing and planned uses of water and related installations	$\boxtimes$
	Settling of differences and conflicts	$\boxtimes$
	Consultations on planned measures	$\boxtimes$
	Exchange of information on best available technology	$\boxtimes$
	Participation in transboundary EIA	$\boxtimes$
	Development of river, lake or aquifer basin management or action plans	$\boxtimes$
	Management of shared infrastructure	
	Addressing hydromorphological alterations	$\boxtimes$
	Climate change adaptation	$\boxtimes$
	Joint communication strategy	$\boxtimes$
	Basin-wide or joint public participation and consultation of, for example, basin management plans	$\boxtimes$
	Joint resources to support transboundary cooperation	$\boxtimes$
	Capacity-building	$\boxtimes$
	Any other tasks (please list): [fill in]	
(h) operat	What are the main difficulties and challenges that your country faces ion of the joint body or mechanism, if any?	with the
	Governance issues	
	Please describe, if any: [fill in]	
	Unexpected planning delays	
	Please describe, if any: [fill in]	
	Lack of resources	$\boxtimes$
	Please describe, if true: [Joint monitoring is difficult to organise, sin onomical resources and the river basin is very large and sparsely populations, operational control of e.g. fishing is difficult to perform.]	
	Lack of mechanism for implementing measures	$\boxtimes$
an operative several.]	Please describe, if true: [The Torne River Commission is not by its a body in implementing the measures. The responsible bodies vary	
	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 he	eavy
	Others ( <i>please list and describe, as appropriate</i> ): The reason why Finland Sweden have replied differently to Qs 3g and h is most likely that the tasks not defined with enough precision which gives room for interpretation, with in itself is a definite challenge.	s are
	There are differences in the delineation of waterbodies and classificatio status according to the EU Water Framework Directive between the coun which may lead to different priorities when harmonising work pl timetables and products within the national water management cycles.	tries
	i) Does the joint body or mechanism, or its subsidiary bodies meet regularly	?
	Yes ⊠/No□	
	f yes, how frequently does it meet?	
	More than once per year	
	Once per year  Less than once per year	
	Less than once per year	
	What are the main achievements with regards to the joint body or mechanic Cooperation over the border in Torne Valley has a long history and common was nanagement projects assessing the shared water bodies have eased implementation of the agreement, e.g. water management projects and local actively the Transboundary River Commission to inform and engage the stakeholder the region. This cooperation has for instance resulted in:	the rities
	<ul> <li>Exchange of knowledge and expertize,</li> <li>Cross-border projects mainly concerning management according to W (EU Interreg TRIWA I-III)</li> <li>Common goals for water management</li> <li>Common goals and joint regulation for fishing</li> <li>Trust between the Transboundary Commission and the stakehol including the national and regional state officials, municipalities and of interest groups.</li> <li>Communication and arrangement of open forums for discussion (W Parliament events, projects, dialogues and meetings).</li> </ul>	ders
	k) Did the joint body or mechanism ever invite a non-riparian coastal Stateooperate?	te to
Yes [	No 🖂	
	f yes, please give details. If no, why not, e.g. are the relevant coastal States iparian States and therefore already members of the joint body or mechanism? Ture no other costal states.	
4.	Have joint objectives, a common strategy, a joint or coordinated management plaction plan been agreed for the basin, sub-basin, part of a basin or group of basin	

Yes [	No□	]	
	have the natransb	please provide further details: The respective national water management been summarized for River Torne in a common report. This work was attional competent authorities for water management in cooperation oundary commission. It was published in 2016 in four languages (not www.fsgk.se/Torneaelvs-rapport-2nd-upplaga-52sA4-SWE-2.pdf	done by with the
		is also a Swedish action plan for intended transboundary cooperation basin, but it has not yet been adopted by the national authorities.	in Torne
	There	is as yet no common programme of measures for the basin.	
5.	protec	is the transboundary basin,—sub-basin, part of a basins or group of ted, including the protection of ecosystems, in the context of sustain al water use?	
	_	ation of urbanization, deforestation, and sand and extraction.	$\boxtimes$
	Enviro seasor	onmental flow norms, including consideration of levels and nality	
		quality protection, e.g. nitrates, pesticides, faecal coliforms, metals	$\boxtimes$
	Water	-related species and habitats protection	$\boxtimes$
		measures ( <i>please describe</i> ): Sustainable management of commerces. The water basin is part of the Natura 2000 network.	non fish
	About	10% of the groundwater in the basin is in protected aquifers.	
6.	(a) States	Does your country regularly exchange information and data with other in the basin, sub-basin, part of a basin or group of basins?	riparian
Yes [	/No [		
	(b)	If yes, how often:	
(c)	Please	e describe how information is exchanged (e.g. in connection with	
		More than once per year	$\boxtimes$
		Once per year	
		Less than once per year	
meeti	Inform Norwa	joint bodies): Information and data is exchanged with Finland renation is usually exchanged by written reports or other written may and the Sámi council. Seminars or meetings are held once or twice dear water management cycles. In addition video conferences are held.	iterial to uring the
	(d)	If yes, on what subjects are information and data exchanged?	
		Environmental conditions	$\boxtimes$
		Research activities and application of best available techniques	$\boxtimes$
		Emission monitoring data	$\boxtimes$
		Planned measures taken to prevent, control or reduce transboundary impacts	$\boxtimes$
		Point source pollution sources	

Bord	er surfa	ce waters	$\boxtimes$	$\boxtimes$	$\boxtimes$
			Hydrological	Ecological	Chemical
	(a)	If yes, what does the joint monitoring	g cover?		
Yes [	⊠/No [				
7.		e riparian States carry out joint monitor f a basin or group of basins?	ring in the trans	boundary bas	sin, sub-basin,
	qualit This I The d (h) basin	ional comments: There are national diry classification systems. The water more eads to among other things different leata formats are also often different.  What are the main benefits of data error group of basins? (please describe): sions and management actions based or	onitoring is base evels of detail in exchange on the availability of u	ed on nationant the monitor basin, sub-bup to date inf	al monitoring programme ring and the collected dat asin, part of a
	Other	(please describe): [fill in]			
	Inade	quate resources (technical and/or finar	ncial)		
	Limit	ed spatial coverage			
		parability of data and information			$\boxtimes$
	•	ng of exchanges			
	_	ency of exchanges	<i>O</i>	67,	
	(g)	What are the main difficulties and ch		a exchange. i	if applicable?
		ush: nup://viss.iansstyreisen.se/ and nush: sh: paikkatieto.ymparisto.fi\vesikartta.		111.5C/111V111/	
	availa	able data: lish: http://viss.lansstyrelsen.se/ and ht			. ,
200	If yes	, please provide the web address: The dbasin, but there are partly common			•
Yes	(1) ⊠/No [				
100 [	(f)	Is the database publicly available?			
Yec I	(e) ⊠/No [	Is there a shared database or informa	uon piatiorm?		
	(-)	Other comments, e.g. spatial coverage in]		nformation e	exchange: [fill
		Other subjects (please list): Updates			
		Future planned measures with transb infrastructure development			$\boxtimes$
		Climatological information			
		Water abstractions			
		Flows or water levels (including ground	undwater levels	s)	
		Existing hydromorphological alteration	ons (dams, etc.	.)	$\boxtimes$
		Diffuse pollution sources			$\boxtimes$

		Hydrological	Ecological	Chemical
Surface w	raters in the entire basin	$\boxtimes$	$\boxtimes$	$\boxtimes$
Surface w watercour	raters on the main se		$\boxtimes$	$\boxtimes$
Surface w	raters in part of the basin			
ple	ease describe [fill in]			
Transbour or unconn	ndary aquifer(s) (connected ected)			
riparian h	) in the territory of one ydraulically connected to a dary river or lake			
(b)	If joint monitoring is carried out, ho	w is this done?		
	National monitoring stations connec or common stations	ted through a n	etwork	$\boxtimes$
	Please describe: [Finland and Swe stations, but results are shared. Togethedary 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]			
	Please describe the main achiev y: There are long time series data from m both countries.			
(d)	Please describe any difficulties expe	rienced with jo	int monitorin	g: [. ]
	the riparian States carry out joint assessin, part of a basin or group of basins?	essment of the	transboundar	ry basin, sub-
Yes ⊠/N	o 🗌			
(e.g	ves, please provide the date of the last or g., surface waters or groundwaters only, d assessment methodology applied: The impetent water authorities regarding delinited and harmonization of status classification methodology applied in accrective.	pollution source ere is an agreer eation of the jo cation (ecologic	ees, etc.) of the ment between int water bod al and chemic	the assessment, in the national lies (along the cal status) and

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 state (please specify which), or have national standards of the riparian State applied? [The water quality standards of the Water Framework Directive harmonized with Finland, but with Norway they are.]	es been
10.	What are the measures implemented to prevent or limit the transboundary in accidental pollution?	npact of
	Notification and communication	$\boxtimes$
	Coordinated or joint early warning or alarm system for accidental water pollution	
	Other ( <i>please list</i> ): Sweden has implemented several EU directives conds involving dangerous substances, monitoring of diffuse pollutants, and air quarter the airborne load of S and N).	_
	No measures	
	If not, why not? What difficulties does your country face in in place such measures?: [fill in]	putting
11.	What are the measures implemented to prevent or limit the transboundary in extreme weather events and climate change?	pact of
	Notification and communication	$\boxtimes$
	Coordinated or joint alarm system for floods	$\boxtimes$
	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 in place such measures?: [fill in]	putting
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 mana in the basin, sub-basin, part of a basin or group of basins?	gement
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	$\boxtimes$
	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	$\boxtimes$
Water user groups or associations	
Academic or research institutions	$\boxtimes$
Other non-governmental organizations	$\boxtimes$
General public	$\boxtimes$
Other (please specify): The joint body arranges discussion forums for and regional stakeholders, informs via various channels, raises awareness, and oppojects for information coordination.	
Availability of information to the public	$\boxtimes$
Consultation on planned measures or river basin management plans <sup>4</sup>	$\boxtimes$
Public involvement	$\boxtimes$
Other (please specify): [fill in]	

 $<sup>^{4}\,</sup>$  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]  $\Box$ 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) 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?  $\boxtimes$ One or more agreements or arrangements exist and are in force  $\Box$ 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-riketav 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 П 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. 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 subbasin? Yes /No Additional explanations? [fill in] Which States (including your own) are bound by the agreement or arrangement? (Please list): Norway and Sweden 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-Rottnemon, SE681162-135429, Görälvsåsen) (c) What is the sectoral scope of the agreement or arrangement?

25

	All water uses	$\boxtimes$
	A single water use or sector	
	Several water uses or sectors	
If one	e or several water uses or sectors, please list (check as appropriate):	
	er uses or sectors	
,,,,,,,,,	Industry	П
	Agriculture	
	Transport (e.g., navigation)	
	Households	
	Energy: hydropower and other energy types	
	Fisheries	
	Tourism	
	Nature protection	
	Other (please list): [fill in]	_
(d) arrang	What topics or subjects of cooperation are included in the agree gement?	ement or
	Procedural and institutional issues	
	Dispute and conflict prevention and resolution	
	Institutional cooperation (joint bodies)	
	Consultation on planned measures	$\boxtimes$
	Mutual assistance	
	Topics of cooperation	
	Joint vision and management objectives	$\boxtimes$
	Joint significant water management issues	$\boxtimes$
	Navigation	
	Human health	
	Environmental protection (ecosystem)	$\boxtimes$
	Water quality	$\boxtimes$
	Water quantity or allocation	$\boxtimes$
	Cooperation in addressing floods	
	Cooperation in addressing droughts	
	Climate change adaptation	
	Monitoring and exchange	
	Joint assessments	
	Data collection and exchange	$\boxtimes$
	Joint monitoring	П

	Maintenance of joint pollution inventories	
	Elaboration of joint water quality objectives	
	Common early warning and alarm procedures	
	Exchange of experience between riparian States	$\boxtimes$
	Exchange of information on planned measures	$\boxtimes$
	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	
management a when necessa discussions a collection" ar	Other ( <i>please list</i> ): Since the Agreement covers the whole subject of according to the EU WFD, all of the abovementioned topics may be it ary. Sweden has marked relevant subjects that have been topics for fter the signing of the 2008 MoU (the Strategy). How to develop and "Joint monitoring" is being discussed between the two countries or specific basins.	ncluded r actual o "Data
	What are the main difficulties and challenges that your country faces ment or arrangement and its implementation, if any?	with the
	Aligning implementation of agreement or arrangement with national laws, policies and programmes	$\boxtimes$
	Aligning implementation of agreement or arrangement with regional laws, policies and programmes	
	Lack of financial resources	$\boxtimes$
	Insufficient human capacity	
	Insufficient technical capacity	
	Tense diplomatic relations	
	Non-participation of certain riparian countries in the agreement	
	No significant difficulties	$\boxtimes$
delinea adjoini of the I with ot	(please describe): Minor challenges of a theoretical nature, such as, atte waterbodies or classify ecological status in transboundary waters wing country has different standards or methods. Since Norway is not a real EU there is the minor challenge on the technicalities of aligning the Agrither water management programmes in Sweden. Lack of financial resonances on why there is no joint monitoring programme.	then the member reement
(f) arrange	What are the main achievements in implementing the agreen ement and what were the keys to achieving such success?	nent or
	greement from 2018 has led to a better formal structure for the collabor Norway and Sweden on the subject of transboundary basins, including	

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

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

		ss of the document (please attach document or insert web ad cable): A copy of the Agreement is attached	dress, if
3.	•	ur country a member of any joint body or mechanism for this agreement?	ement or
Yes [	✓/No [		
	If no,	why not? (please explain): [	
Whe	re there	e is a joint body or mechanism	
	(a) (pleas	If there is a joint body or mechanism, which kind of joint body or mese tick one)?	echanism
		Plenipotentiaries	
		Bilateral commission	
		Basin or similar commission	
		Expert group meeting or meeting of national focal points	
	igement ement.	Other (please describe): The Swedish Agency of Marine and and the Norwegian Environment Agency constitute the joint body	
	(b) basin,	Does the joint body or mechanism cover the entire transboundary bat part of a basin or group of basins?	ısin, sub-
Yes [	⊠/No [		
	that an	Which States (including your own) are members of the joint anism? ( <i>Please list</i> ): Norway and Sweden (d) Are there any riparire not members of the joint body or mechanism? (please list): No(e) parian States are members of the joint body or mechanism how does or mechanism cooperate with them?	an States If not
		No cooperation	
		They have observer status	
		Other (please describe): [fill in]	
	(f) tick th	Does the joint body or mechanism have any of the following feature the ones applicable)?	s (please
		A secretariat	
		If the secretariat is a permanent one, is it a joint secretary does each country host its own secretariat? (Please describe): [fill in	

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

A subsidiary body or bodies

	Other features (please list): [fill in]	
(g)	What are the tasks and activities of this joint body or mechanism? <sup>5</sup>	
	Identification of pollution sources	
	Data collection and exchange	$\boxtimes$
	Joint monitoring	
	Maintenance of joint pollution inventories	
	Setting emission limits	
	Elaboration of joint water quality objectives	$\boxtimes$
	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	$\boxtimes$
	Control of implementation	
	Exchange of experience between riparian States	$\boxtimes$
	Exchange of information on existing and planned uses of water and related installations	
	Settling of differences and conflicts	
	Consultations on planned measures	$\boxtimes$
	Exchange of information on best available technology	$\boxtimes$
	Participation in transboundary EIA	
	Development of river, lake or aquifer basin management or action plans	
	Management of shared infrastructure	
	Addressing hydromorphological alterations	$\boxtimes$
	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]	

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.

oj Oj	What are the main difficulties and challenges that your country peration of the joint body or mechanism, if any?	faces with the
	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 coopera in difficulties, however Norway and Sweden are at different places ment cycles. There are also different national legal systems to harmon on 2 e.	in their water
(i)	Does the joint body or mechanism, or its subsidiary bodies meet	t regularly?
Y	es ⊠/No□	
If	yes, how frequently does it meet?	
	More than once per year	$\boxtimes$
	Once per year	
	Less than once per year	
w	What are the main achievements with regards to the joint body of the Agreement from 2018 stipulates at least two yearly meetings and continuous ith exchange of information. This has stimulated an ongoing conitoring and status classification between the countries.	mmunications
(k	Did the joint body or mechanism ever invite a non-riparian copperate?	pastal State to
Yes/N	No 🖂	
ri, ar	Tyes, please give details. If no, why not, e.g. are the relevant coast parian States and therefore already members of the joint body or meche only two coastal States: Sweden and Norway, both riparian States f the cooperation mechanism.	nanism? There

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

2.	(a)	Does this agreement or arrangement specify the area subject to coope	ration?
	Yes [	☑/No □	
	If yes	, does it cover the entire basin or group of basins and all riparian States	?
	Yes [	☑/No □	
	cover of wa	ional explanations? The Strategy from 2011 as well as the Agreement from all water management issues of transboundary interest, for example detected atterbodies and water districts, classifying ecological status, organial tation process, drawing water management plans and plans of measurest	lineating sing the
		trategy names and covers all of the transboundary river basins between The document is a common document for all basins and aquifers shared tries.	•
	Or, if basin	the agreement or arrangement relates to a sub-basin, does it cover the en?	itire sub-
	Yes [	]/No [	
	Addit	ional explanations? [fill in]	
		h States (including your own) are bound by the agreement or arran se list): [Norway and Sweden]	gement?
	(b) does i	If the agreement or arrangement relates to a river or lake basin or suit also cover aquifers?	ıb-basin,
	Yes [	☑/No □	
aquife		, please list the aquifers covered by the agreement or arrangement: Fortlanda-Eda glasbruk, Lekvattnet-Rottnemon, SE681162-135429, Görä	
	(c)	What is the sectoral scope of the agreement or arrangement?	
		All water uses	$\boxtimes$
		A single water use or sector	
		Several water uses or sectors	
	If one	or several water uses or sectors, please list (check as appropriate):	
	Wate	r 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) arrang	What topics or subjects of cooperation are included in the agree gement?	ment or

Procedural and institutional issues	
Dispute and conflict prevention and resolution	
Institutional cooperation (joint bodies)	
Consultation on planned measures	$\boxtimes$
Mutual assistance	
Topics of cooperation	
Joint vision and management objectives	$\boxtimes$
Joint significant water management issues	$\boxtimes$
Navigation	
Human health	
Environmental protection (ecosystem)	$\boxtimes$
Water quality	$\boxtimes$
Water quantity or allocation	$\boxtimes$
Cooperation in addressing floods	
Cooperation in addressing droughts	
Climate change adaptation	
Monitoring and exchange	
Joint assessments	
Data collection and exchange	$\boxtimes$
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	$\boxtimes$
Exchange of information on planned measures	$\boxtimes$
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) agreei	What are the main difficulties and challenges that your country faces with the ement or arrangement and its implementation, if any?		
		Aligning implementation of agreement or arrangement with national laws, policies and programmes	$\boxtimes$	
		Aligning implementation of agreement or arrangement with regional laws, policies and programmes		
		Lack of financial resources	$\boxtimes$	
		Insufficient human capacity		
		Insufficient technical capacity		
		Tense diplomatic relations		
		Non-participation of certain riparian countries in the agreement		
		No significant difficulties		
	deline	(please describe): Minor challenges of a theoretical nature, such as eate waterbodies or classify ecological status in transboundary waters using country has different standards or methods.	in transboundary waters when the	
	(f) arrang	What are the main achievements in implementing the agreed gement and what were the keys to achieving such success?	ment or	
	have Mana and an	trategy of 2008/2011 and the implementation of the EU WFD in both of led to a better understanding of the importance of Integrated Water I gement in whole river basins, also of exchange of knowledge about water inthropogenic impact close to the border, and on the whole a better consboundary water management.	Resource er quality	
	mainly example border and b	eys to success are, apart from centuries of good cooperation on shared re y that the Strategy contains practical advice and agreed-upon met ple on assessment of water bodies and how information can be shared at rs, especially at the regional level. In addition it creates a mutual under asis for cooperation regarding the making, implementation and supervater management plans and the division of basins and their classification	hods for cross the estanding vision of	
		Please attach a copy of the agreement or arrangement or provide ss of the document (please attach document or insert web adacable): A copy of the Strategy was provided as a part of the first rise.	dress, if	
3.	-	ur country a member of any joint body or mechanism for this agree gement?	ement or	
Yes 🛭	/No [			
	If no,	why not? (please explain): [fill in]		
Wher	e there	e is a joint body or mechanism		
	(a) (pleas	If there is a joint body or mechanism, which kind of joint body or me se tick one)?	chanism	
		Plenipotentiaries		
		Bilateral commission		
		Basin or similar commission		

		Expert group meeting or meeting of national focal points	
Norwe	egian-S	Other ( <i>please describe</i> ): The Swedish Agency for Marine and and the Norwegian Environment Agency constitute the joint body wedish Strategy for transboundary river basins, in addition to represent levels of water management in both countries.	for the
	(b) basin,	Does the joint body or mechanism cover the entire transboundary bas part of a basin or group of basins?	sin, sub
Yes 🛭	/No [		
	(c) mecha	Which States (including your own) are members of the joint lanism? ( <i>Please list</i> ): Norway and Sweden	body o
	(d) mecha	Are there any riparian States that are not members of the joint mism? (please list): No	body o
	(e) the joi	If not all riparian States are members of the joint body or mechanism h nt body or mechanism cooperate with them?	ow doe
		No cooperation	
		They have observer status	
		Other (please describe): [fill in]	
	(f) tick th	Does the joint body or mechanism have any of the following features <i>e ones applicable</i> )?	(pleas
		A secretariat	
		If the secretariat is a permanent one, is it a joint secreta 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 ( <i>please list</i> ): The Strategy is based on the requirementere are representatives from the local, regional and national level from the local concerning the Strategy itself.	
	(g)	What are the tasks and activities of this joint body or mechanism? <sup>6</sup>	
		Identification of pollution sources	$\boxtimes$
		Data collection and exchange	$\boxtimes$
		Joint monitoring	
		Maintenance of joint pollution inventories	
		Setting emission limits	
		Elaboration of joint water quality objectives	$\boxtimes$
		Management and prevention of flood or drought risks	
		Preparedness for extreme events, e.g., common early warning and alarm procedures	

<sup>&</sup>lt;sup>6</sup> This may include tasks according to the agreement or tasks added by the joint body, or its subsidiaries. Both tasks which joint bodies coordinate and tasks which they implement should be included.

Surveillance and early warning of water related disease	
Water allocation and/or flow regulation	$\boxtimes$
Policy development	
Control of implementation	
Exchange of experience between riparian States	$\boxtimes$
Exchange of information on existing and planned uses of water and related installations	$\boxtimes$
Settling of differences and conflicts	
Consultations on planned measures	$\boxtimes$
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	$\boxtimes$
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	$\boxtimes$
Capacity-building	
Any other tasks ( <i>please list</i> ): Cooperation on liming of acidifie rivers and management of certain transboundary fish species.	d lakes and
(h) What are the main difficulties and challenges that your country fa operation of the joint body or mechanism, if any?	ces with the
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]		
free	from dif	Others (please list and describe, as appropriate): The cooperation ficulties	on is mainly	
	(i)	Does the joint body or mechanism, or its subsidiary bodies meet re	egularly?	
	Yes 🛭	☑/No □		
	If yes, how frequently does it meet?			
		More than once per year		
		Once per year	$\boxtimes$	
		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 E Water Framework Directive and to further establish cooperation between countries on a regional level.			
	(k) coope	Did the joint body or mechanism ever invite a non-riparian coarate?	stal State to	
Yes	□/No [	lacktriangled		
	ripari are or of the	n please give details. If no, why not, e.g. are the relevant coastal an States and therefore already members of the joint body or mechanily two coastal States: Sweden and Norway, both riparian States are cooperation mechanism.	nism? There and members	
		ntion between Sweden and Norway pertaining to certain issues		
<u>aciti</u>	vues in	water courses which affect water courses in the neighbouring co	<u>ountry</u>	
2.	(a)	Does this agreement or arrangement specify the area subject to cool	operation?	
		☑/No □		
	-	, does it cover the entire basin or group of basins and all riparian Sta	ites?	
		☑/No □		
	encon of the	ional explanations? The convention between Norway and Swed npass all transboundary basins between the countries, concerning so use of transboundary water that may affect the amount of water or water in the neighbouring country.	ome aspects	
	Or, if basin's	the agreement or arrangement relates to a sub-basin, does it cover the?	e entire sub-	
	Yes	]/No []		
	Addit	ional explanations? [fill in]		
		h States (including your own) are bound by the agreement or are <i>list</i> ): [Norway and Sweden]	rangement?	

(b) does i	If the agreement or arrangement relates to a river or lake basin or sut also cover aquifers?	ıb-basin,	
Yes [	]/No 🔀		
If yes,	please list the aquifers covered by the agreement or arrangement: [fill	in]	
(c)			
	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	r uses or sectors		
	Industry		
	Agriculture		
	Transport (e.g., navigation)	$\boxtimes$	
	Households		
	Energy: hydropower and other energy types		
	Fisheries	$\boxtimes$	
	Tourism		
	Nature protection		
	Other (please list): [fill in]		
(d) arrang	What topics or subjects of cooperation are included in the agree gement?	ment or	
	Procedural and institutional issues		
	Dispute and conflict prevention and resolution	$\boxtimes$	
	Institutional cooperation (joint bodies)		
	Consultation on planned measures	$\boxtimes$	
	Mutual assistance		
	<b>Topics of cooperation</b>		
	Joint vision and management objectives		
	Joint significant water management issues	$\boxtimes$	
	Navigation		
	Human health		
	Environmental protection (ecosystem)		
	Water quality		
	Water quantity or allocation	$\boxtimes$	
	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	$\boxtimes$
	Joint planning and management	
	Development of joint regulations on specific topics	$\boxtimes$
	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) agree	What are the main difficulties and challenges that your country face ement or arrangement and its implementation, if any?	s with the
	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	$\boxtimes$
Othe	r (please describe): [fill in]	
(f)	What are the main achievements in implementing the agree	ement o

r 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 production address of the document (please attach document or insert we applicable): http://www.riksdagen.se/sv/dokument-lagar/dok forfattningssamling/lag-1929404-om-giltighet-har-i-riket-av_sfs-1929-0	b address, if ument/svensk-
3.	Is your country a member of any joint body or mechanism for this arrangement?	agreement or
Yes	□/No ⊠	
	If no, why not? (please explain): The Convention has been implement legislation for almost a century. It does not stipulate a joint body procedures of notifications between the countries.	
Whe	re there is a joint body or mechanism	
	Further questions removed as insignificant for the Convention from 19	)29
Trys	eement between Sweden and Norway to reintroduce local salmon populil and Femund rivers in Norway and Klarälven in Sweden through ects "Vänerlaksens fria gang" (2010-2014) and "Två länder – en älv"	the InterReg
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" an – en älv" (Free migration of the lake Vänern salmon" and Two countrie concern the rivers Klarälven/Trysilelva and Femundelva, a tributary to the Norwegian side.	es – one river")
	Or, if the agreement or arrangement relates to a sub-basin, does it cover basin?	the entire sub-
	Yes □/No □	
	Additional explanations? [fill in]	
	Which States (including your own) are bound by the agreement or ( <i>Please list</i> ): [Norway and Sweden]	arrangement?
	(b) If the agreement or arrangement relates to a river or lake basin does it also cover aquifers?	or sub-basin,
	Yes □/No ⊠	
	If yes, please list the aquifers covered by the agreement or arrangemen	t: [fill in]
	(c) What is the sectoral scope of the agreement or arrangement?	
	All water uses	
	A single water use or sector	$\boxtimes$
	Several water uses or sectors	

 ${\it If one or several water uses or sectors, please list (check as appropriate):}$ 

Wate	er uses or sectors	
	Industry	
	Agriculture	
	Transport (e.g., navigation)	
	Households	
	Energy: hydropower and other energy types	
	Fisheries	
	Tourism	
	Nature protection	
populations	Other ( <i>please list</i> ): The InterReg project's goal is to reintroduce localin specific rivers in Norway and Sweden and promote sustainable fishing.	
(d) arran	What topics or subjects of cooperation are included in the agree gement?	ement or
	Procedural and institutional issues	
	Dispute and conflict prevention and resolution	
	Institutional cooperation (joint bodies)	
	Consultation on planned measures	$\boxtimes$
	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	$\boxtimes$	
Joint planning and management		
Development of joint regulations on specific topics		
Development of international or joint river, lake or aquif management or action plans	er basin	
Management of shared infrastructure		
Development of shared infrastructure		
Other ( <i>please list</i> ): The InterReg project goal is to increase the complex river system Femund-Trysil-Klarälven to improve conductorial subspecies of salmon and brown trout. Some of the most import reintroduce the species to the upper parts of the system, to removing reintroduce the species to the upper parts of the system, to removing reintroduce the species to the upper parts of the system, to remove the species to adapt hydropower plants and facilities to environment.	itions for indigenous ant measures are to we obstacles for fish	
(e) What are the main difficulties and challenges that your cagreement or arrangement and its implementation, if any?	country faces with the	
Aligning implementation of agreement or arrangement w national laws, policies and programmes	vith	
Aligning implementation of agreement or arrangement wregional laws, policies and programmes	vith	
Lack of financial resources		
Insufficient human capacity		
Insufficient technical capacity		
Tense diplomatic relations		
Non-participation of certain riparian countries in the agree	eement	
No significant difficulties	$\boxtimes$	
Other ( <i>please describe</i> ): Any dialogue with the energy sector that suggests lo the production of hydropower plants to increase fish migration or reproduction be difficult. But all in all the difficulties have been minor. The project has 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 address of the document ( <i>please attach document or ins applicable</i> ): https://tvalanderenelv.eu/		
3. Is your country a member of any joint body or mechanism farrangement?	For this agreement or	
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 Innlandet (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?

$\mathbf{V}_{\alpha\alpha}$	$\times$ /No	
i es	<b> </b> ✓ /1 <b>N</b> O	

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	$\boxtimes$
Water quality protection, e.g. nitrates, pesticides, faecal coliforms, heavy metals	$\boxtimes$
Water-related species and habitats protection	$\boxtimes$

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) States	Does your country regularly exchange information and data with othe in the basin, sub-basin, part of a basin or group of basins?	er riparian				
Yes 🛭	Yes ⊠/No □						
	(b)	If yes, how often:					
		More than once per year	$\boxtimes$				
		Once per year					
		Less than once per year					
(c) Please describe how information is exchanged (e.g. in connection meetings of joint bodies): The Agreement stipulates two yearly meetings of the body, that is between experts within the agencies Swedish Agency for Mark Water Management and the Norwegian Environmental Directorate. One medesigned to information sharing with executives of both organisations.							
		are also meetings and information exchange between municipal nal county boards.	ities and				
	(d)	If yes, on what subjects are information and data exchanged?					
		Environmental conditions	$\boxtimes$				
		Research activities and application of best available techniques	$\boxtimes$				
		Emission monitoring data	$\boxtimes$				
		Planned measures taken to prevent, control or reduce transboundary impacts	$\boxtimes$				
		Point source pollution sources	$\boxtimes$				
		Diffuse pollution sources	$\boxtimes$				
		Existing hydromorphological alterations (dams, etc.)	$\boxtimes$				
		Flows or water levels (including groundwater levels)					
		Water abstractions	$\boxtimes$				
		Climatological information					
		Future planned measures with transboundary impacts, such as infrastructure development	$\boxtimes$				
		Other subjects (please list): [fill in]					
		Other comments, e.g. spatial coverage of data and information exchain]	ange: [fill				
	(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 basi http://viss.lansstyrelsen.se/ and http://miljodata.slu.se/mvm/	ns:				
(g) What are the main difficulties and challenges to data exchange, if applicable	e?				
Frequency of exchanges					
Timing of exchanges					
Comparability of data and information  Limited spatial coverage					
Limited spatial coverage					
Inadequate resources (technical and/or financial)					
Other ( <i>please describe</i> ): There is no common database for transboundary waterbodies in neighbouring country in our national database. However, data is open and free for in both countries and there are no difficulties in exchanging data. There is good dexchange at the regional and local level.	all				
(h) What are the main benefits of data exchange on the basin, sub-basin, part of a basin or group of basins? ( <i>please describe</i> ): 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.					
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					
Surface waters in the entire basin					
Surface waters on the main					
Surface waters in part of the basin					
please describe [fill in]					
Transboundary aquifer(s) (connected					
Aquifer(s) in the territory of one riparian hydraulically connected to a transboundary river or lake					

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

		National monitoring stations connected through a network or common stations	
		Please describe: [fill in]	
		Joint and agreed methodologies	
		Please describe: [fill in]	
		Joint sampling	
		Please describe: [fill in]	
		Common monitoring network	
		Please describe: [fill in]	
		Common agreed parameters	
		Please describe: [fill in]	
	(c) in]	Please describe the main achievements regarding joint monitoring, if a	ny: [fill
	(d)	Please describe any difficulties experienced with joint monitoring: [fill	l in]
8.		e riparian States carry out joint assessment of the transboundary basing part of a basin or group of basins?	in, sub-
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		
	a prog	tterReg project on the Vänerlaxen salmon also has joint objectives, and ramme of measures for endangered species. The project administration and reference group) have met regularly, several times a year.	_
9.	Have t	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.		are the measures implemented to prevent or limit the transboundary in ntal pollution?	ipact of
		Notification and communication	$\boxtimes$
		Coordinated or joint early warning or alarm system for accidental water pollution	

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?  $\boxtimes$ Notification and communication X 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] 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  $\boxtimes$ or mechanism  $\boxtimes$ 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 X General public Other (please specify): [fill in] Availability of information to the public  $\boxtimes$ 

Consultation on planned measures or river basin

Other (please list): Sweden has implemented several EU directives concerning

management	p]	lans
managomone	Р,	CULID

 $\boxtimes$ 

Public involvement

 $\boxtimes$ 

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.

<sup>&</sup>lt;sup>7</sup> 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 o	f the riparian States:[Sweden and Norway		
	e case of an aquifer, what is the nature of the aquifer and its relations basin:	on with t	he river
Unco	nfined aquifer connected to a river or lake		
Unco	nfined aquifer with no or limited relation with surface water		
Confi	ned aquifer connected to surface water		
Confi	ned aquifer with no or limited relation with surface water		
Other			
Please	e describe: [fill in]		
Unkn	own		
	entage of your country's territory within the basin, sub-basin, pa of basins: Enningdalsälven, 780 km2. Sweden has 70% of the basin		
1.	Is there one or more transboundary (bilateral or multilateral) arrangement(s) on this basin, sub-basin, part of a basin or group of b		ent(s) or
	One or more agreements or arrangements exist and are in force		$\boxtimes$
	Agreement or arrangement developed but not in force		
	Agreement or arrangement developed, but not in force for all riparia	ins	
	Please insert the name of the agreement(s) or arrangement(s) [fill in	n]	
Norway-Sweden 2018: Agreement on cooperation 2018-2020 to Swedish Agency for Marine and Water Management (Sweden) Environment Directorate (Norway) on water management in act with the EU Water Framework Directive. (Avtal om samarbete mellan Havs- och vattenmyndigheten (Sverige) och Miljödirek (Norge) om vattenförvaltning enligt EU:s ramdirektiv för vatte prolongation of the Agreement is planned and the terms will be meeting in September 2020.		n) and the accordar te 2018- ktoratet en). A	ne nce 2020
	Norway-Sweden 2011: the MoU from 2008 was developed in for water management 2011-2012: Gränsvatten Norge och Sy för internationellt samarbete (Transboundary water Norway a Strategy for international cooperation). (In Swedish).	erige –	Strategi
	Norway-Sweden 2008: A Memorandum of Understanding, de implementation of the WFD by the countries. Norway is not a state but is voluntarily implementing IWRM according to the the Strategy from 2011 is based on this MoU, the MoU will not in questions 2-3 of Section II.	EU me WFD. S	mber Since
	Norway-Sweden 1929: Convention between Sweden and Nor to certain issues concerning activities in water courses which		

courses in the neighbouring country from 1929, http://www.riksdagen.se/sv/dokument-lagar/dokument/svenskforfattningssamling/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

does it also cover aquifers?

Norv	<u>vay – Sweden 2018 Agreement on cooperation 2018-2020</u>
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 a 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 ( <i>Please list</i> ): [Norway and Sweden]
	(b) If the agreement or arrangement relates to a river or lake basin or sub-basin

	Yes 🛭	☑/No □	
Agree	-	s, please list the aquifers covered by the agreement or arrangem overs aquifers, but no aquifers in this basin	ent: The
	(c)	What is the sectoral scope of the agreement or arrangement?	
		All water uses	$\boxtimes$
		A single water use or sector	
		Several water uses or sectors	
	If one	or several water uses or sectors, please list (check as appropriate):	
	Wate	r 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) arrang	What topics or subjects of cooperation are included in the agree gement?	ement or
		Procedural and institutional issues	
		Dispute and conflict prevention and resolution	
		Institutional cooperation (joint bodies)	
		Consultation on planned measures	$\boxtimes$
		Mutual assistance	
		<b>Topics of cooperation</b>	
		Joint vision and management objectives	$\boxtimes$
		Joint significant water management issues	$\boxtimes$
		Navigation	
		Human health	
		Environmental protection (ecosystem)	
		Water quality	$\boxtimes$
		Water quantity or allocation	$\boxtimes$
		Cooperation in addressing floods	
		Cooperation in addressing droughts	
		Climate change adaptation	

Monitoring and exchange	
Joint assessments	
Data collection and exchange	$\boxtimes$
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	$\boxtimes$
Exchange of information on planned measures	$\boxtimes$
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	
management according to the EU WFD, all of the abovementioned topics may be when necessary. Sweden has marked relevant subjects that have been topics discussions after the signing of the 2008 MoU (the Strategy). The topics "Data of and "Joint monitoring" are being discussed between the two countries both gener specific basins.	for actual collection"
(e) What are the main difficulties and challenges that your country face agreement or arrangement and its implementation, if any?	es with the
Aligning implementation of agreement or arrangement with national laws, policies and programmes	$\boxtimes$
Aligning implementation of agreement or arrangement with regional laws, policies and programmes	
Lack of financial resources	$\boxtimes$
Insufficient human capacity	
Insufficient technical capacity	
Tense diplomatic relations	
Non-participation of certain riparian countries in the agreement	
No significant difficulties	
Other ( <i>please describe</i> ): Minor challenges of a theoretical nature, such a delineate waterbodies or classify ecological status in transboundary waters adjoining country has different standards or methods. Since Norway is not of the EU there is an ongoing minor challenge on the technicalities of al Agreement with other water management programmes in Sweden. Lack o resources is one reason why there is no joint monitoring programme.	when the a member igning the f financial
(f) What are the main achievements in implementing the agree arrangement and what were the keys to achieving such success?	ement or

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.

- 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
- r

3.	•	or country a member of any joint body or mechanism for this agreed gement?	ment o
Yes 🏻	No [		
	If no,	why not? (please explain): [fill in]	
Wher	e there	e is a joint body or mechanism	
	(a) (pleas	If there is a joint body or mechanism, which kind of joint body or mechanism which kind of joint body or mechanism.	chanisn
		Plenipotentiaries	
		Bilateral commission	
		Basin or similar commission	
		Expert group meeting or meeting of national focal points	
	gement ement.	Other (please describe): The Swedish Agency of Marine and and the Norwegian Environment Agency constitute the joint body	
	(b) basin,	Does the joint body or mechanism cover the entire transboundary bas part of a basin or group of basins?	in, sub
Yes [	✓/No [		
	(c) mecha	Which States (including your own) are members of the joint banism? ( <i>Please list</i> ): Norway and Sweden	ody o
	(d) mecha	Are there any riparian States that are not members of the joint banism? (please list): No	ody o
	(e) the join	If not all riparian States are members of the joint body or mechanism ho int body or mechanism cooperate with them?	ow does
		No cooperation	
		They have observer status	
		Other (please describe): [fill in]	
	(f) tick th	Does the joint body or mechanism have any of the following features are ones applicable)?	(please

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 secretariat

	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	$\boxtimes$
	Joint monitoring	
	Maintenance of joint pollution inventories	
	Setting emission limits	
	Elaboration of joint water quality objectives	$\boxtimes$
	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	$\boxtimes$
	Participation in transboundary EIA	
	Development of river, lake or aquifer basin management or action plans	$\boxtimes$
	Management of shared infrastructure	
	Addressing hydromorphological alterations	$\boxtimes$
	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	

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) operat	What are the main difficulties and challenges that your country faces ion of the joint body or mechanism, if any?	with the
		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]	
	ement	Others ( <i>please list and describe, as appropriate</i> ): The cooperation is ficulties, however Norway and Sweden are at different places in the cycles. There are also different national legal systems to harmonise, see.	ir water
	(i)	Does the joint body or mechanism, or its subsidiary bodies meet regul	arly?
	Yes 🔀	]/No	
	If yes,	how frequently does it meet?	
		More than once per year	$\boxtimes$
		Once per year	
		Less than once per year	
	with 6	What are the main achievements with regards to the joint body or med greement from 2018 stipulates at least two yearly meetings and commun exchange of information. This has stimulated an ongoing discussoring and status classification between the countries.	ications
	(k) cooper	Did the joint body or mechanism ever invite a non-riparian coastal rate?	State to
Yes [	]/No [>		
	ripario	please give details. If no, why not, e.g. are the relevant coastal States and therefore already members of the joint body or mechanism ly two coastal States: Sweden and Norway, both riparian States and n cooperation mechanism.	? There

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

2.

(a) Does this agreement or arrangement specify the area subject to coope	ration?		
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 and Sweden. The document is a common document for all basins shared betwo countries.	•		
Or, if the agreement or arrangement relates to a sub-basin, does it cover the elbasin?	ntire sub-		
Yes □/No □			
Additional explanations? [fill in]			
Which States (including your own) are bound by the agreement or arran ( <i>Please list</i> ): Norway and Sweden	gement?		
(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 covers management of transboundary aquifers in general, but no aquifers in tare transboundary			
(c) What is the sectoral scope of the agreement or arrangement?			
All water uses	$\boxtimes$		
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	$\boxtimes$
Mutual assistance	
Topics of cooperation	
Joint vision and management objectives	$\boxtimes$
Joint significant water management issues	$\boxtimes$
Navigation	
Human health	
Environmental protection (ecosystem)	$\boxtimes$
Water quality	$\boxtimes$
Water quantity or allocation	$\boxtimes$
Cooperation in addressing floods	
Cooperation in addressing droughts	
Climate change adaptation	
Monitoring and exchange	
Joint assessments	
Data collection and exchange	$\boxtimes$
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	$\boxtimes$
Exchange of information on planned measures	$\boxtimes$
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.

What are the main difficulties and challenges that your country faces with the

a	greement or arrangement and its implementation, if any?	
	Aligning implementation of agreement or arrangement with national laws, policies and programmes	$\boxtimes$
	Aligning implementation of agreement or arrangement with regional laws, policies and programmes	
	Lack of financial resources	$\boxtimes$
	Insufficient human capacity	
	Insufficient technical capacity	
	Tense diplomatic relations	
	Non-participation of certain riparian countries in the agreement	
	No significant difficulties	
d	Other ( <i>please describe</i> ): Minor challenges of a theoretical nature, such as, elineate waterbodies or classify ecological status in transboundary waters w djoining country has different standards or methods.	
(1 a:	What are the main achievements in implementing the agreement and what were the keys to achieving such success?	nent or
h N a	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.	
n e b a	The keys to success are, apart from centuries of good cooperation on shared respiration that the Strategy contains practical advice and agreed-upon meth example on assessment of water bodies and how information can be shared accorders, especially at the regional level. In addition it creates a mutual undersent basis for cooperation regarding the making, implementation and supervious water management plans and the division of basins and their classification	ods for ross the tanding ision of
a	g) Please attach a copy of the agreement or arrangement or provide to ddress of the document (please attach document or insert web add applicable): A copy of the Strategy is attached 3	
	s your country a member of any joint body or mechanism for this agreen rrangement?	ment or
Yes 🔀	No 🗌	
Ij	fno, why not? (please explain): [	
Where t	there is a joint body or mechanism	
`	a) If there is a joint body or mechanism, which kind of joint body or mechanism tick one)?	chanism
	Plenipotentiaries	
	Bilateral commission	

and Water body for the presentatives
y basin, sub-
int body or
oint body or
sm how does
tures (please
cretariat or ll in]
ments of the
9
$\boxtimes$
$\boxtimes$
$\boxtimes$

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	$\boxtimes$
	Policy development	
	Control of implementation	
	Exchange of experience between riparian States	$\boxtimes$
	Exchange of information on existing and planned uses of water and related installations	$\boxtimes$
	Settling of differences and conflicts	
	Consultations on planned measures	$\boxtimes$
	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	$\boxtimes$
	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	$\boxtimes$
	Capacity-building	
rivers and m	Any other tasks ( <i>please list</i> ): Cooperation on liming of acidified la anagement of certain transboundary fish species.	ikes and
(h) opera	What are the main difficulties and challenges that your country faces tion of the joint body or mechanism, if any?	with the
	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]	
free fi	Others (please list and describe, as appropriate): The cooperation is more difficulties,	ainly
	(i) Does the joint body or mechanism, or its subsidiary bodies meet regularly	y?
	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 mechand Mutual agreement on reporting status of the transboundary basins within the Water Framework Directive and to further establish cooperation between countries on a regional level.	EU's
	(k) Did the joint body or mechanism ever invite a non-riparian coastal Stacooperate?	ate to
Yes [	/No ⊠	
	If yes, please give details. If no, why not, e.g. are the relevant coastal States riparian States and therefore already members of the joint body or mechanism? The are only two coastal States: Sweden and Norway, both riparian States and memof the cooperation mechanism.	Γhere
	Convention between Sweden and Norway pertaining to certain issues concerties in water courses which affect water courses in the neighbouring country	
2.	(a) Does this agreement or arrangement specify the area subject to cooperati Yes ⊠/No □	on?
	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 encompass all transboundary basins between the countries, concerning some as of the use of transboundary water that may affect the amount of water or the quotient of the water in the neighbouring country.	pects
	Or, if the agreement or arrangement relates to a sub-basin, does it cover the entire basin?	sub-
	Yes  /No	
	Additional explanations? [fill in]	

	n States (including your own) are bound by the agreement or arrange list): Norway and Sweden	gement?
(b) does i	If the agreement or arrangement relates to a river or lake basin or sut also cover aquifers?	ıb-basin,
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	$\boxtimes$
If one	or several water uses or sectors, please list (check as appropriate):	
Water	r uses or sectors	
	Industry	
	Agriculture	
	Transport (e.g., navigation)	$\boxtimes$
	Households	
	Energy: hydropower and other energy types	$\boxtimes$
	Fisheries	$\boxtimes$
	Tourism	
	Nature protection	
	Other (please list): [fill in]	
(d) arrang	What topics or subjects of cooperation are included in the agree gement?	ment or
	Procedural and institutional issues	
	Dispute and conflict prevention and resolution	$\boxtimes$
	Institutional cooperation (joint bodies)	
	Consultation on planned measures	$\boxtimes$
	Mutual assistance	
	Topics of cooperation	
	Joint vision and management objectives	
	Joint significant water management issues	$\boxtimes$
	Navigation	
	Human health	
	Environmental protection (ecosystem)	
	Water quality	
	Water quantity or allocation	$\boxtimes$
	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	$\boxtimes$
	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) agree	What are the main difficulties and challenges that your country faces ment or arrangement and its implementation, if any?	s with the
	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	$\boxtimes$
Other	r (please describe): [fill in]	
(f) arran	What are the main achievements in implementing the agree gement and what were the keys to achieving such success?	ement o

ır

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.
Wher	e there is a joint body or mechanism
	Further questions removed as insignificant for the Convention from 1929
	Agreement between Norway and Sweden concerning management of salmon and 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? ( <i>Please list</i> ): 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
	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., naviga	ation)	
Households		
Energy: hydropower a	and other energy types	
Fisheries		$\boxtimes$
Tourism		
Nature protection		
Other (please list):		
(d) What topics or subject arrangement?	ects of cooperation are included i	n the agreement or
Procedural and insti	tutional issues	
Dispute and conflict p	prevention and resolution	$\boxtimes$
Institutional cooperati	on (joint bodies)	
Consultation on plann	ed measures	
Mutual assistance		
Topics of cooperation	n	
Joint vision and mana	gement objectives	
Joint significant water	management issues	
Navigation		
Human health		
Environmental protec	tion (ecosystem)	
Water quality		
Water quantity or allo	cation	
Cooperation in address	sing floods	
Cooperation in address	sing droughts	
Climate change adapt	ation	
Monitoring and exch	nange	
Joint assessments		
Data collection and ex	achange	
Joint monitoring		
Maintenance of joint j	pollution inventories	
Elaboration of joint w	ater quality objectives	
Common early warning	ng and alarm procedures	
Exchange of experien	ce between riparian States	
Exchange of informat	ion 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	
	concerns fish	Other (please list): The agreement is implemented in Swedish legisla ing of salmon and trout in river Enningdalsälven and the aforementioned	
	(e) agreen	What are the main difficulties and challenges that your country faces ment or arrangement and its implementation, if any?	with the
		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	$\boxtimes$
	Other	(please describe):	
	ensure	What are the main achievements in implementing the agreer gement and what were the keys to achieving such success? The agrees a joint management of the stocks of salmon and trout in the transboodies.	reement
	ent or insert v	of the agreement or arrangement or provide the web address of the web address, if applicable): [https://lovdata.no/dokument/TRAKTAT/traden]	
:	•	ar country a member of any joint body or mechanism for this agree gement?	ment or
	Yes □/No ▷		
	If no, why n Norwegian la	not? (please explain): The agreement is implemented through Swedaw.	lish and
	Where there i	is a joint body or mechanism	
	Furthe	er questions removed as insignificant for the Agreement.	

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?

4.

<b>T</b> T	~ ·	
Vac	IVI/N	
1 69	1/\//\	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.

	country other country develo	naw (1929:404) on validity in Sweden of the Swedish-Norwegian Control Impact and Measures is an old convention that regulates the duting to inform the other if actions are planned that will cause physical compact on the water of the other country. It also establishes the right ries to endorse such actions. The law was instituted during a period opment of hydropower while watercourses were still needed for lot transports.	y of each changes or thts of the with high
5.	protec	is the transboundary basin,—sub-basin, part of a basins or group cted, including the protection of ecosystems, in the context of sustainal water use?	
	_	lation of urbanization, deforestation, and sand and l extraction.	
	Enviro	onmental flow norms, including consideration of levels and nality	$\boxtimes$
		r quality protection, e.g. nitrates, pesticides, faecal coliforms, v metals	
	Water	r-related species and habitats protection	$\boxtimes$
	Other	measures (please describe): Ongoing measures for the Enningdalälve	en basin:
		cted areas are designated for drinking water sources in surface waters a for aquifers.	and inflow
	biotop	e are several Natura2000 areas and other forms of protection for spees in parts of the basin (for example for the Freshwater Pear aritifera margaritifera).	
		and gravel extraction and forestry are activities strongly regulated becountries.	by laws in
	the pr	eration between the two countries is also visible in various projects of rotection of salmon populations (for example liming as a measure as of acidification)	
6.	(a) States	Does your country regularly exchange information and data with oth s in the basin, sub-basin, part of a basin or group of basins?	er riparian
Yes [	No [		
	(b)	If yes, how often:	
		More than once per year	$\boxtimes$
		Once per year	

		Less than once per year	
	body, Mana	Please describe how information is exchanged (e.g. in connections of joint bodies): The Agreement stipulates two yearly meetings of that is experts within the agencies Swedish Agency for Marine and gement and the Norwegian Environmental Directorate. One meeting is dormation sharing with executives of both organisations.	the joint d Water
		are also regular meetings and information exchange between municipalical county boards.	ities and
	(d)	If yes, on what subjects are information and data exchanged?	
		Environmental conditions	$\boxtimes$
		Research activities and application of best available techniques	$\boxtimes$
		Emission monitoring data	$\boxtimes$
		Planned measures taken to prevent, control or reduce transboundary impacts	$\boxtimes$
		Point source pollution sources	$\boxtimes$
		Diffuse pollution sources	$\boxtimes$
		Existing hydromorphological alterations (dams, etc.)	$\boxtimes$
		Flows or water levels (including groundwater levels)	
		Water abstractions	
		Climatological information	
		Future planned measures with transboundary impacts, such as infrastructure development	$\boxtimes$
		Other subjects (please list): [fill in]	
		Other comments, e.g. spatial coverage of data and information exchanin]	ige: [fill
	(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:	
		ish open databases with data on the Swedish side of all shared viss.lansstyrelsen.se/ and http://miljodata.slu.se/mvm/	basins:
	(g)	What are the main difficulties and challenges to data exchange, if appl	licable?
	Frequ	ency of exchanges	
	Timin	g of exchanges	
	Comp	arability of data and information	
	Limite	ed spatial coverage	

	Inade	quate resources (technical and/or final	ncial)			
Other ( <i>please describe</i> ): There is no common database for transboundary water neighbouring country in our national database. However, data is open an in both countries and there are no difficulties in exchanging data. There exchange at the regional and local level.					nd free for all	
	and e water measu	What are the main benefits of data e or group of basins? ( <i>please describe</i> ): nsures that an overall assessment of body is made on both sides of the bordures and coordinate efforts in improbodies.	Data exchange the ecological ler. This enable	permits bette and chemical s us to sugge	er cooperation I status of the st appropriate	
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 [	$\boxtimes$				
	(a)	If yes, what does the joint monitorin	g cover?			
			Hydrological	Ecological	Chemical	
Borde	er surfa	ce waters				
Surfac	ce wate	ers in the entire basin				
	ce wate	ers on the main				
Surfac	ce wate	ers in part of the basin				
	please	e describe [fill in]				
	bounda connect	ary aquifer(s) (connected ted)				
riparia	an hydi	the territory of one raulically connected to a ry river or lake				
	(b)	If joint monitoring is carried out, ho	w is this done?			
	, ,	National monitoring stations connec or common stations		etwork		
		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) in]	Please describe the main achievements regarding joint monitoring, if a	ıny: [fill
	(d)	Please describe any difficulties experienced with joint monitoring: [fil	l in]
8.		he riparian States carry out joint assessment of the transboundary bas , part of a basin or group of basins?	in, sub-
Yes [	✓/No [		
	(e.g., and a Norw river result water the pr	s, please provide the date of the last or only assessment, the frequency are surface waters or groundwaters only, pollution sources, etc.) of the assessment methodology applied: During the years 2008 – 2011, Swe way carried out a common project to establish cooperation in the Enningd basin. The aim was joint management of the the basin and the river mosted in coordinated monitoring, a plan for fish and water management, or quality standards, and joint liming of acidified lakes and river. The resurroject have been the basis for the Programme of Measures according to the basin.	den and alsälven uth, and common alts from
	and e plann Meet	len and Norway meet regularly at the regional level to discuss water mana exchange information pursuant to the Agreement from 2018. During hing process, January 2020 the environmental objectives were reings at the regional level occur more frequently in order to exchangmation.	the last viewed.
	conne	onal authorities exchanged data in 2017 on transboundary watercorrection with reporting to WISE, the WFD database run by the Eronment Agency	
9.	Have	the riparian States agreed to use joint water quality standards?	
Yes [	√/No [		
	(pleas	s, what standards have been applied, e.g. international or regional st se specify which), or have national standards of the riparian States been a water quality standards are in accordance with the Water Framework Dir	applied?
10.		are the measures implemented to prevent or limit the transboundary in ental pollution?	npact of
		Notification and communication	$\boxtimes$
		Coordinated or joint early warning or alarm system for accidental water pollution	
		Other ( <i>please list</i> ): Sweden has implemented several EU directives conclving dangerous substances, monitoring of diffuse pollutants, and air quirborne load of S and N).	_
		No measures	
		If not, why not? What difficulties does your country face in in place such measures?: [fill in]	putting
11.		are the measures implemented to prevent or limit the transboundary in me weather events and climate change?	npact of
		Notification and communication	$\boxtimes$
		Coordinated or joint alarm system for floods	$\boxtimes$
		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 in place such measures?: [fill in]	putting
	12. Are p	procedures in place for mutual assistance in case of a critical situation?	
	Yes/No [	$\boxtimes$	
	If yes, please	provide a brief summary: [fill in]	
		he public or relevant stakeholders involved in transboundary water mana basin, sub-basin, part of a basin or group of basins?	gement
	Yes ⊠/No [		
	If yes	, how? (please tick all applicable)	
		holders have observer status in a joint body echanism	
	Stake	holders have an advisory role in a joint body	
	Stake	holders have a decision-making role in the joint body	
	<i>If yes</i> [fill in	, please specify the stakeholders for the joint body or mechanism: n]	
		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]	
	Avail	ability of information to the public	$\boxtimes$
		ultation on planned measures or river basin gement plans <sup>10</sup>	$\boxtimes$
	Publi	c involvement	$\square$

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.

<sup>&</sup>lt;sup>10</sup> 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, Upperudsälven, Strömsån

List of the riparian States: Sweden and Norway

	e case of an aquifer, what is the nature of the aquifer and its relation wit ke basin:	h the river	
Unco	nfined aquifer connected to a river or lake		
Unco	nfined aquifer with no or limited relation with surface water		
Confi	ned aquifer connected to surface water		
Confi	ned aquifer with no or limited relation with surface water		
Other			
Please	e describe: [fill in]		
Unkn	own		
Perce	entage of your country's territory within the basin, sub-basin, part of group of basins: $96.0\%$	a basin or	
1.	Is there one or more transboundary (bilateral or multilateral) agree arrangement(s) on this basin, sub-basin, part of a basin or group of basins of the sub-basin or group of basins or group or group of basins or group or group of basins or group or gr		
	One or more agreements or arrangements exist and are in force	$\boxtimes$	
	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 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 membe is voluntarily implementing IWRM according to the WFD. Since the Strat 2011 is based on this MoU, the MoU will not be addressed in questions 2-Section II.	egy from	

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 briewhy not and provide information on any plans to address the situation:	yfly		
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.				
	tions 2 and 3 to be completed for each bilateral or multilateral agreement agement in force in the transboundary basin, sub-basin, part of a basin or grossins.			
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 transbound interest, for example delineating of waterbodies and water districts, classify ecological status, organising the consultation process, drawing water managem plans and plans of measure, etc.	ing		
	This document is a common documents for all basins shared between the t 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 subasin?	ıb-		
	Yes  \[ \scalendrightarrow\ No \[ \]			
	Additional explanations? [fill in]			
	Which States (including your own) are bound by the agreement or arrangeme ( <i>Please list</i> ): Sweden and Norway	nt?		
	(b) If the agreement or arrangement relates to a river or lake basin or sub-basedoes it also cover aquifers?	in,		
	Yes ⊠/No □			
	If yes, please list the aquifers covered by the agreement or arrangement: SE6645. (Kortlanda-Eda glasbruk), SE668576-131918 (Lekvattnet-Rottnemon), SE6811629, SE679503-384592 (Görälvsåsen)			

(c)	What is the sectoral scope of the agreement or arrangement?	
	All water uses	$\boxtimes$
	A single water use or sector	
	Several water uses or sectors	
If on	e or several water uses or sectors, please list (check as appropriate):	
Wat	er 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) arran	What topics or subjects of cooperation are included in the agreegement?	ement or
	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	$\boxtimes$
	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	$\boxtimes$

	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	$\boxtimes$
	Exchange of information on planned measures	$\boxtimes$
	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	
when necess discussions a	Other ( <i>please list</i> ): Since the Agreement covers the whole subject according to the EU WFD, all of the abovementioned topics may be ary. Sweden has marked relevant subjects that have been topics after the signing of the 2008 MoU (the Strategy). How to develop different monitoring is being discussed between the two countries both fic basins.	e included for actua lop "Data
(e) agreei	What are the main difficulties and challenges that your country facement or arrangement and its implementation, if any?	s with the
	Aligning implementation of agreement or arrangement with national laws, policies and programmes	$\boxtimes$
	Aligning implementation of agreement or arrangement with regional laws, policies and programmes	
	Lack of financial resources	$\boxtimes$
	Insufficient human capacity	
	Insufficient technical capacity	
	Tense diplomatic relations	
	Non-participation of certain riparian countries in the agreement	
	No significant difficulties	
transboundar	Other ( <i>please describe</i> ): Challenges have been minor and usu ature, such as, how to delineate waterbodies or classify ecological y waters when the adjoining country has different standards or method the usually addressed bilaterally within the structure of the Agreement	status ir
	For this group of large rivers, originating in the Norwegian moun	ntains and

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.

		Please attach a copy of the agreement or arrangement or provide ss of the document (please attach document or insert web addicable): A copy of the Agreement is attached	
3.	•	ar country a member of any joint body or mechanism for this agree gement?	ment or
Yes 🛭	/No [		
	If no,	why not? (please explain): [	
Wher	e there	e is a joint body or mechanism	
	(a) (pleas	If there is a joint body or mechanism, which kind of joint body or me set tick one)?	chanism
		Plenipotentiaries	
		Bilateral commission	
		Basin or similar commission	
		Expert group meeting or meeting of national focal points	
Manaş agreei		Other (please describe): [The Swedish Agency for Marine and and the Norwegian Environment Agency constitute the joint body	
	(b) basin,	Does the joint body or mechanism cover the entire transboundary bar part of a basin or group of basins?	sin, sub-
Yes 🛭	/No [		
	(c) mecha	Which States (including your own) are members of the joint lanism? ( <i>Please list</i> ): [Sweden and Norway	body or
	(d) mecha	Are there any riparian States that are not members of the joint anism? (please list): [No	body or
	(e) the join	If not all riparian States are members of the joint body or mechanism h int body or mechanism cooperate with them?	ow does
		No cooperation	
		They have observer status	
		Other (please describe): [fill in]	

(f) tick the	Does the joint body or mechanism have any of the following features <i>e ones applicable</i> )?	(please
	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? <sup>11</sup>	
	Identification of pollution sources	
	Data collection and exchange	$\boxtimes$
	Joint monitoring	
	Maintenance of joint pollution inventories	
	Setting emission limits	
	Elaboration of joint water quality objectives	$\boxtimes$
	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	$\boxtimes$
	Control of implementation	
	Exchange of experience between riparian States	$\boxtimes$
	Exchange of information on existing and planned uses of water and related installations	
	Settling of differences and conflicts	
	Consultations on planned measures	$\boxtimes$
	Exchange of information on best available technology	$\boxtimes$
	Participation in transboundary EIA	
	Development of river, lake or aquifer basin management or action plans	
	Management of shared infrastructure	
	Addressing hydromorphological alterations	$\boxtimes$
	Climate change adaptation	

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) operat	What are the main difficulties and challenges that your country faces ion of the joint body or mechanism, if any?	with the
		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]	
manag	gement	Others ( <i>please list and describe, as appropriate</i> ): The cooperation is ficulties, however Norway and Sweden are at different places in the cycles and will sometimes make different priorities when it comeasures, etc. There are also different legal systems to harmonise.	ir water
	(i)	Does the joint body or mechanism, or its subsidiary bodies meet regula	arly?
	Yes 🛭	☑/No□	
	If yes,	how frequently does it meet?	
		More than once per year	
		Once per year	
		Less than once per year	
	with e	What are the main achievements with regards to the joint body or med greement from 2018 stipulates at least two yearly meetings and communication of information. This has stimulated an ongoing discussion on atus classification between the countries.	unications
	(k) coope	Did the joint body or mechanism ever invite a non-riparian coastal rate?	State to
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)

Direc	(CI ( C)		
2.			
	(a)	Does this agreement or arrangement specify the area subject to coope	ration?
	Yes [	⊠/No	
	If yes	s, does it cover the entire basin or group of basins and all riparian States	?
	Yes [	⊠/No	
	Addi	tional explanations?	
Swed		strategy names and covers all of the transboundary basins between Nor	way and
	Or, if basin	the agreement or arrangement relates to a sub-basin, does it cover the er?	ntire sub
	Yes [	/No	
	Addi	tional explanations? [fill in]	
		th States (including your own) are bound by the agreement or arrange list): Norway, Sweden	igement'
	(b) does	If the agreement or arrangement relates to a river or lake basin or so it also cover aquifers?	ıb-basin
	Yes [	⊠/No	
	15 (Ko	s, please list the aquifers covered by the agreement or arrangement: SE rtlanda-Eda glasbruk), SE668576-131918 (Lekvattnet-Rottnemon), SE 679503-384592 (Görälvsåsen)	
	(c)	What is the sectoral scope of the agreement or arrangement?	
		All water uses	$\boxtimes$
		A single water use or sector	
		Several water uses or sectors	
	If one	e or several water uses or sectors, please list (check as appropriate):	
	Wate	er uses or sectors	
		Industry	
		Agriculture	
		Transport (e.g., navigation)	
		Households	
		Energy: hydropower and other energy types	

Fisheries		
Tourism		
Nature protection		
Other (please list): The Framework Directive (WFD), as it is it	strategy concerns all water uses un mplemented in Swedish legislation.	der EU's Water
(d) What topics or subject arrangement?	s of cooperation are included in th	e agreement or
Procedural and institu	tional issues	
Dispute and conflict pre	vention and resolution	
Institutional cooperation	(joint bodies)	
Consultation on planned	measures	$\boxtimes$
Mutual assistance		
Topics of cooperation		
Joint vision and manage	ment objectives	$\boxtimes$
Joint significant water m	nanagement issues	
Navigation		
Human health		
Environmental protection	n (ecosystem)	$\boxtimes$
Water quality		$\boxtimes$
Water quantity or alloca	tion	$\boxtimes$
Cooperation in addressing	ng floods	
Cooperation in addressing	ng droughts	
Climate change adaptati	on	
Monitoring and exchar	nge	
Joint assessments		
Data collection and exch	nange	$\boxtimes$
Joint monitoring		
Maintenance of joint pol	llution inventories	
Elaboration of joint water	er quality objectives	
Common early warning	and alarm procedures	
Exchange of experience	between riparian States	$\boxtimes$
Exchange of information	n on planned measures	$\boxtimes$
Joint planning and ma	nagement	
Development of joint reg	gulations on specific topics	
Development of internat management or action p	ional or joint river, lake or aquifer bas lans	sin
Management of shared i	nfrastructure	

Davelenment of chared infractructure	
Development of shared infrastructure  Other ( <i>please list</i> ): Since the Strategy covers the whole subject of it water management according to the EU WFD, all of the abovementioned topic included when necessary. Sweden has marked relevant subjects that have been actual discussions after the signing of the 2008 MoU (the Strategy). The top collection" and "Joint monitoring" are being discussed between the two countries general and for specific basins.	s may be topics for ics "Data
(e) What are the main difficulties and challenges that your country face agreement or arrangement and its implementation, if any?	s with the
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	$\boxtimes$
Other (please describe): [fill in]	
(f) What are the main achievements in implementing the agree arrangement and what were the keys to achieving such success?	ement or
The Strategy of 2008/2011 and the implementation of the EU WFD in both have led to a better understanding of the importance of Integrated Water Management in whole river basins, also of exchange of knowledge about wat and anthropogenic impact close to the border, and on the whole a better coon transboundary water management.	Resource er quality
The keys to success are, apart from centuries of good cooperation on shared a mainly that the Strategy contains practical advice and agreed-upon me example on assessment of water bodies and how information can be shared a borders, especially at the regional level. In addition it creates a mutual under and basis for cooperation regarding the making, implementation and super the water management plans and the division of basins and their classification.	thods for across the erstanding rvision of
(g) Please attach a copy of the agreement or arrangement or provide address of the document (please attach document or insert web acapplicable): A copy of the Strategy is attached	
3. Is your country a member of any joint body or mechanism for this agree arrangement?	ement or
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	
Norwe Strate	egian E gy for t	e describe): The Swedish Agency for Marine and Water Management Environment Agency constitute the joint body for the Norwegian-Stransboundary river basins, in addition to representatives for County or management in both countries.	Swedish
	(b) basin,	Does the joint body or mechanism cover the entire transboundary bas part of a basin or group of basins?	in, sub-
Yes 🛭	/No [		
	(c) mecha	Which States (including your own) are members of the joint banism? (Please list): Norway and Sweden	ody or
	(d) mecha	Are there any riparian States that are not members of the joint banism? No	oody or
	(e) the joi	If not all riparian States are members of the joint body or mechanism hont body or mechanism cooperate with them?	ow does
		No cooperation	
		They have observer status	
		Other (please describe): [fill in]	
	(f) tick th	Does the joint body or mechanism have any of the following features <i>e ones applicable</i> )?	(please
		A secretariat	
		If the secretariat is a permanent one, is it a joint secreta 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 ( <i>please list</i> ): The strategy is based on the requirement ere are representatives from the local, regional and national level from the local concerning the strategy itself.	
	(g)	What are the tasks and activities of this joint body or mechanism? <sup>12</sup>	
		Identification of pollution sources	$\boxtimes$
		Data collection and exchange	$\boxtimes$
		Joint monitoring	
		Maintenance of joint pollution inventories	

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	$\boxtimes$
	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	$\boxtimes$
	Policy development	
	Control of implementation	
	Exchange of experience between riparian States	$\boxtimes$
	Exchange of information on existing and planned uses of water and related installations	
	Settling of differences and conflicts	
	Consultations on planned measures	$\boxtimes$
	Exchange of information on best available technology	
	Participation in transboundary EIA	
	Development of river, lake or aquifer basin management or action plans	П
	Management of shared infrastructure	
	Addressing hydromorphological alterations	$\boxtimes$
	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	$\boxtimes$
	Capacity-building	
rivers and ma	Any other tasks ( <i>please list</i> ): Cooperation on liming of acidified lanagement of certain transboundary fish species.	kes and
(h) operat	What are the main difficulties and challenges that your country faces ion of the joint body or mechanism, if any?	with the
	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 e	ffective measures	
Please de	escribe, if true: [fill in]	
Unexpect	ted extreme events	
Please de	escribe, if any: [fill in]	
Lack of in	nformation and reliable forecasts	
Please de	escribe, if any: [fill in]	
Others (p free from difficulties	olease list and describe, as appropriate): The	e cooperation is mainly
(i) Does the	joint body or mechanism, or its subsidiary bo	dies meet regularly?
Yes ⊠/No□		
If yes, how frequ	uently does it meet?	
More than	n once per year	
Once per	year	$\boxtimes$
Less than	once per year	
Mutual agreeme Water Framewo	the main achievements with regards to the joinent on reporting status of the transboundary ork Directive and to further establish coefficient level, for instance with data sharing	basins within the EU's
(k) Did the jo cooperate?	oint body or mechanism ever invite a non-ri	iparian coastal State to
Yes □/No ⊠		
States and therefore alr	ils. If no, why not, e.g. are the relevant coast ready members of the joint body or mechanis and Norway, both riparian States and memb	m? There are only two
1929 Convention betw	veen Sweden and Norway pertaining to cert	tain issues concerning
	rses which affect water courses in the neigh	_
2.		
(a) Does this	agreement or arrangement specify the area su	abject to cooperation?
Yes ⊠/No □		
If yes, does it co	ver the entire basin or group of basins and all	riparian States?
Yes ⊠/No □		
encompasses all transbo	anations? The convention between Norway oundary basins in Norway and Sweden, concey water that may affect the amount of water or untry.	erning some aspects of
Or, if the agreem basin?	nent or arrangement relates to a sub-basin, does	s it cover the entire sub-
Yes  /No		

Addi	tional explanations? [fill in]	
	ch States (including your own) are bound by the agreement or arrange list): Norway, Sweden	igement?
(b) does	If the agreement or arrangement relates to a river or lake basin or sit also cover aquifers?	ıb-basin,
Yes [	/No ⊠	
If yes	s, 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	$\boxtimes$
If one	e or several water uses or sectors, please list (check as appropriate):	
Wate	er uses or sectors	
	Industry	
	Agriculture	
	Transport (e.g., navigation)	$\boxtimes$
	Households	
	Energy: hydropower and other energy types	$\boxtimes$
	Fisheries	$\boxtimes$
	Tourism	
	Nature protection	
	Other (please list):	
(d) arran	What topics or subjects of cooperation are included in the agree gement?	ement or
	Procedural and institutional issues	
	Dispute and conflict prevention and resolution	$\boxtimes$
	Institutional cooperation (joint bodies)	
	Consultation on planned measures	$\boxtimes$
	Mutual assistance	
	Topics of cooperation	
	Joint vision and management objectives	
	Joint significant water management issues	$\boxtimes$
	Navigation	
	Human health	
	Environmental protection (ecosystem)	
	Water quality	
	Water quantity or allocation	$\boxtimes$

	Cooperation in addressing floods	П
	Cooperation in addressing droughts	
	Climate change adaptation	
	Monitoring and exchange	_
	Joint assessments	П
	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	$\boxtimes$
	Joint planning and management	
	Development of joint regulations on specific topics	$\boxtimes$
	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) agree	What are the main difficulties and challenges that your country face ment or arrangement and its implementation, if any?	s with the
	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	$\boxtimes$
	Other (please describe): [fill in]	
	What are the main achievements in implementing the agre gement and what were the keys to achieving such success? The Conver	ntion from

(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	$\boxtimes$
Water quality protection, e.g. nitrates, pesticides, faecal coliforms, heavy metals	$\bowtie$

	Wate	r-related species and habitats protection	$\boxtimes$
	Other	measures (please describe):	
		cted areas are designated for drinking water sources in surface waters an for aquifers.	d inflow
		e are several Natura2000 areas, national parks, natural reserves, and other otection for species and biotopes in parts of the basin.	er forms
		and gravel extraction and forestry are activities strongly regulated by countries.	laws in
	the p	eration between the two countries is also visible in various projects corrotection of salmon populations (for example liming as a measure agasts of acidification)	_
6.		Does your country regularly exchange information and data with other in the basin, sub-basin, part of a basin or group of basins?	riparian
Yes L	⊠/No [		
	(b)	If yes, how often:	
		More than once per year	
		Once per year	
		Less than once per year	
	of the Wate	Please describe how information is exchanged (e.g. in connections of joint bodies): The Agreement from 2018 stipulates two yearly rejoint body, that is experts within the agencies Swedish Agency for Mar Management and the Norwegian Environmental Directorate. One more to information sharing with executives of both organisations.	neetings rine and
		e are also regular meetings and information exchange between municipal nal county boards.	ities and
	(d)	If yes, on what subjects are information and data exchanged?	
		Environmental conditions	$\boxtimes$
		Research activities and application of best available techniques	$\boxtimes$
		Emission monitoring data	$\boxtimes$
		Planned measures taken to prevent, control or reduce transboundary impacts	$\boxtimes$
		Point source pollution sources	$\boxtimes$
		Diffuse pollution sources	$\boxtimes$
		Existing hydromorphological alterations (dams, etc.)	$\boxtimes$
		Flows or water levels (including groundwater levels)	
		Water abstractions	$\boxtimes$
		Climatological information	
		Future planned measures with transboundary impacts, such as	

Surfac	ce wate	rs in the entire basin			
Borde	er surfac	ce waters			
			Hydrological	Ecological	Chemical
	(a)	If yes, what does the joint monitoring	cover?		
Yes [	]/No [				
7.		e riparian States carry out joint monitori f a basin or group of basins?	ng in the transb	oundary basi	n, sub-basin,
	coope assess sides	What are the main benefits of data ex or group of basins? ( <i>please describe</i> ration. Data exchange permits better ment of the ecological and chemical sof the border. This enables us to sugg in improving and protecting our trans	): Data exchange cooperation and status of the waterst appropriate	ge permits of d ensures that terbody is m measures an	overall better at an overall hade on both
	Other for tra But the region than in the tra	(please describe): There is no common insboundary waterbodies in the neighbourer are no difficulties in exchanging on all and local level. However, it is easien formation about planned measures of ransboundary areas of these riverstainous.	n database or poouring country data. There is ger to find and to development.	in our nation ood data exc share water This is espec	hal database. hange at the quality data cially true in
		quate resources (technical and/or finan-	cial)		
	_	ed spatial coverage			
		g of exchanges arability of data and information			
	•	ency of exchanges			
	(g)	What are the main difficulties and characters of such areas	allenges to data	exchange, 1f	applicable?
		http://miljodata.slu.se/mvm/			
		http://viss.lansstyrelsen.se/			
	If yes,	please provide the web address: Swee	lish national da	tabases:	
Yes 🛭	No [				
	(f)	Is the database publicly available?			
Yes [	]/No [				
	(e)	Is there a shared database or informat			
		Other comments, e.g. spatial covera According to the Nordic Saami Conve the Sámi people have the rights to ve their land, which covers areas of north are often Sámi representatives in for ea written in Sámi language is distribute	ention of 2017 ( vater and other ern Sweden, No example Water	(being re-wri natural reso orway, and Fi Councils and	tten in 2020) urces within nland. There
		Other subjects (please list): [fill in]			
		infrastructure development			$\boxtimes$

			Hydrological	Ecological	Chemical
Surfac waterc		rs on the main			
Surfac	e wate	rs in part of the basin			
	please	describe [fill in]			
	ounda onnect	ry aquifer(s) (connected ed)			
riparia	n hydr	the territory of one aulically connected to a y river or lake			
	(b)	If joint monitoring is carried out, how	is this done?		
		National monitoring stations connected or common stations	ed through a ne	etwork	
		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) in]	Please describe the main achievemen	ts regarding joi	nt monitorin	g, if any: [fill
	(d)	Please describe any difficulties exper	ienced with joi	nt monitoring	g: [fill in]
8.		e riparian States carry out joint asses part of a basin or group of basins?	ssment of the t	ransboundar	y basin, sub-
Yes 🗵	/No [				
	(e.g., .	please provide the date of the last or o surface waters or groundwaters only, p ssessment 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.			ning process,	
	conne	nal authorities exchanged data in 20 ction with reporting to WISE, the comment 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 of the riparian States been The water quality standards used in transboundary basins are in accordance Water Framework Directive.	applied?
10.	What are the measures implemented to prevent or limit the transboundary is accidental pollution?	mpact of
	Notification and communication	$\boxtimes$
	Coordinated or joint early warning or alarm system for accidental water pollution	
	Other ( <i>please list</i> ): Sweden has implemented several EU directives conds involving dangerous substances, monitoring of diffuse pollutants, and air que the airborne load of S and N).	_
	No measures	
	If not, why not? What difficulties does your country face in in place such measures?: [fill in]	n putting
11.	What are the measures implemented to prevent or limit the transboundary i extreme weather events and climate change?	mpact of
	Notification and communication	$\boxtimes$
	Coordinated or joint alarm system for floods	$\boxtimes$
	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 in place such measures?: [fill in]	n putting
12.	Are procedures in place for mutual assistance in case of a critical situation?	
Yes [	/No ⊠	
If yes	s, please provide a brief summary: [fill in]	
13.	Are the public or relevant stakeholders involved in transboundary water main the basin, sub-basin, part of a basin or group of basins?	nagemen
Yes [	⊠/No	
	If yes, how? (please tick all applicable)	
	Stakeholders have observer status in a joint body or mechanism	$\boxtimes$
	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 Sami representative in the mountain areas of northern Sweden/Norway.	s in Water Councils
Availability of information to the public	
Consultation on planned measures or river basin management plans <sup>13</sup>	
Public involvement	
Other (please specify): [fill in]	

 $<sup>^{\</sup>rm 13}~$  Or, where applicable, a quifer 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		
	e case of an aquifer, what is the nature of the aquifer and its ke basin:	relation with	the river
Unco	onfined aquifer connected to a river or lake		
Unco	onfined aquifer with no or limited relation with surface water		
Conf	ined aquifer connected to surface water		
Conf	ined aquifer with no or limited relation with surface water		
Othe	r		
Pleas	se describe: [fill in]		
Unkr	nown		
Perc	entage of your country's territory within the basin, sub-bas group of basins: 3,5 %	sin, part of a	basin or
1.	Is there one or more transboundary (bilateral or multilar arrangement(s) on this basin, sub-basin, part of a basin or group		nent(s) or
	One or more agreements or arrangements exist and are in force	e	$\boxtimes$
	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 Agency for Marine and Water Management (Sweden) and the Directorate (Norway) on water management in accordance wi Framework Directive. (Avtal om samarbete 2018-2020 mellar vattenmyndigheten (Sverige) och Miljödirektoratet (Norge) or enligt EU:s ramdirektiv för vatten). A prolongation of the Agrethe terms will be decided at a meeting in September 2020.	Environment th the EU Wan Havs- och m vattenförva	iter Itning
	Norway-Sweden 2011: Strategy for water management 2011-7. Norge och Sverige – Strategi för internationellt samarbete (Tr. Norway and Sweden – Strategy for international cooperation). Strategy was developed on the MoU from 2008 and is is preservision following the meeting between the national and regio from Norway and Sweden in January 2020.	ansboundary  (In Swedish)  ently undergoi	water ). The ing
	Norway-Sweden 2008: A Memorandum of Understanding, de implementation of the WFD by the countries. Norway is not a is voluntarily implementing IWRM according to the WFD. Sin	EU member	

 $2011\ \mathrm{is}$  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 ur	Agreement	or
urungement is ur	No agreement or arrangement	
	If there is no agreement or arrangement or it is not in force, please explain briewhy not and provide information on any plans to address the situation:	efly
tra que	here is no agreement or arrangement and no joint body or mechanism for a asboundary basin, sub-basin, part of a basin or group of basins then jump stion 4; if there is no agreement or arrangement, but a joint body or mechanic a go to question 3.	to
arr	stions 2 and 3 to be completed for each bilateral or multilateral agreement ingement in force in the transboundary basin, sub-basin, part of a basin or groasins.	
No	way – 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 transboundinterest, for example delineating of waterbodies and water districts, classifying ecological status, organising the consultation process, drawing water management plans and plans of measure, etc.	ing
	These documents are common documents for all basins shared between the t countries, and so render specific written agreements unnecessary for each particuriver or lake.	
	Or, if the agreement or arrangement relates to a sub-basin, does it cover the entire subasin?	ub-
	Yes  \[ \]/No  \[ \]	
	Additional explanations? [fill in]	
	Which States (including your own) are bound by the agreement or arrangement ( <i>Please list</i> ): Sweden and Norway	nt?
	(b) If the agreement or arrangement relates to a river or lake basin or sub-bas does it also cover aquifers?	sin,
	Yes ⊠/No □	

If yes, please list the aquifers covered by the agreement or arrangement: SE664534-130215 (Kortlanda-Eda glasbruk), SE668576-131918 (Lekvattnet-Rottnemon), SE681162-135429, SE679503-384592 (Görälvsåsen)

(c)	What is the sectoral scope of the agreement or arrangement?	
	All water uses	$\boxtimes$
	A single water use or sector	
	Several water uses or sectors	
If on	e or several water uses or sectors, please list (check as appropriate):	
Wat	er 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) arran	What topics or subjects of cooperation are included in the agreement?	ement or
	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	$\boxtimes$
	Joint significant water management issues	$\boxtimes$
	Navigation	
	Human health	
	Environmental protection (ecosystem)	$\boxtimes$
	Water quality	$\boxtimes$
	Water quantity or allocation	$\boxtimes$
	Cooperation in addressing floods	
	Cooperation in addressing droughts	
	Climate change adaptation	
	Monitoring and exchange	

	Joint assessments	
	Data collection and exchange	$\boxtimes$
	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	$\boxtimes$
	Exchange of information on planned measures	$\boxtimes$
	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	
when necess discussions	Other ( <i>please list</i> ): Since the Agreement covers the whole subject according to the EU WFD, all of the abovementioned topics may be sary. Sweden has marked relevant subjects that have been topics after the signing of the 2008 MoU (the Strategy). How to devel and "Joint monitoring" is being discussed between the two countries both aftic basins.	included for actual op "Data
(e) agree	What are the main difficulties and challenges that your country faces ment or arrangement and its implementation, if any?	s with the
	Aligning implementation of agreement or arrangement with national laws, policies and programmes	$\boxtimes$
	Aligning implementation of agreement or arrangement with regional laws, policies and programmes	
	Lack of financial resources	$\boxtimes$
	Insufficient human capacity	
	Insufficient technical capacity	
	Tense diplomatic relations	
	Non-participation of certain riparian countries in the agreement	
	No significant difficulties	
in tra metho	Other ( <i>please describe</i> ): Challenges have been minor and usual etical nature, such as, how to delineate waterbodies or classify ecological unsboundary waters when the adjoining country has different started. These difficulties are usually addressed bilaterally within the struct ement and the Strategy.	ical status ndards or
	For this group of rivers, originating in the Swedish mountains and	d running

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 th	nere is a joint body or mechanism	
(a ( <i>p</i>	) If there is a joint body or mechanism, which kind of joint body lease tick one)?	or mechanism
	Plenipotentiaries	
	Bilateral commission	
	Basin or similar commission	
	Expert group meeting or meeting of national focal points	
Managen agreemer	Other ( <i>please describe</i> ): [The Swedish Agency for Marin nent and the Norwegian Environment Agency constitute the joint nt.]	
(b ba	Does the joint body or mechanism cover the entire transbound usin, part of a basin or group of basins?	ary basin, sub-
Yes 🔀/N	No 🗌	
(c) m	Which States (including your own) are members of the echanism? ( <i>Please list</i> ): Sweden and Norway	joint body or
(d m	) Are there any riparian States that are not members of the echanism? (please list): No	joint body or
(e)	If not all riparian States are members of the joint body or mecha e joint body or mechanism cooperate with them?	nism how does
	No cooperation	
	They have observer status	
	Other (please describe): [fill in]	

(f) tick t	Does the joint body or mechanism have any of the following features the ones applicable)?	s (please
	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? <sup>14</sup>	
	Identification of pollution sources	
	Data collection and exchange	$\boxtimes$
	Joint monitoring	
	Maintenance of joint pollution inventories	
	Setting emission limits	
	Elaboration of joint water quality objectives	$\boxtimes$
	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	$\boxtimes$
	Control of implementation	
	Exchange of experience between riparian States	$\boxtimes$
	Exchange of information on existing and planned uses of water and related installations	
	Settling of differences and conflicts	
	Consultations on planned measures	$\boxtimes$
	Exchange of information on best available technology	$\boxtimes$
	Participation in transboundary EIA	
	Development of river, lake or aquifer basin management or action plans	
	Management of shared infrastructure	
	Addressing hydromorphological alterations	$\boxtimes$
	Climate change adaptation	

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 operation of the joint body or mechanism, if any?	faces with the
	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]	
nanage	Others (please list and describe, as appropriate): The coopera om difficulties, however Norway and Sweden are at different places ement cycles and will sometimes make different priorities when ring, measures, etc. There are also different legal systems to harmonise	in their water it comes to
	(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	$\boxtimes$
	Once per year	
	Less than once per year	
,	(j) What are the main achievements with regards to the joint body of The Agreement from 2018 stipulates at least two yearly meetings and countries are change of information. This has stimulated an ongoing discussion and status classification between the countries.	communications
	(k) Did the joint body or mechanism ever invite a non-riparian cocooperate?	pastal State to
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 subbasin? Yes /No / Additional explanations? [fill in] Which States (including your own) are bound by the agreement or arrangement? (Please list): Norway, Sweden 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-Rottnemon), SE681162-135429, SE679503-384592 (Görälvsåsen) (c) What is the sectoral scope of the agreement or arrangement? $\boxtimes$ 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	
Framework I	Other ( <i>please list</i> ): The strategy concerns all water uses under EU Directive (WFD), as it is implemented in Swedish legislation.	s Water
(d) arrang	What topics or subjects of cooperation are included in the agree gement?	ment or
	Procedural and institutional issues	
	Dispute and conflict prevention and resolution	
	Institutional cooperation (joint bodies)	
	Consultation on planned measures	$\boxtimes$
	Mutual assistance	
	Topics of cooperation	
	Joint vision and management objectives	$\boxtimes$
	Joint significant water management issues	$\boxtimes$
	Navigation	
	Human health	
	Environmental protection (ecosystem)	$\boxtimes$
	Water quality	$\boxtimes$
	Water quantity or allocation	$\boxtimes$
	Cooperation in addressing floods	
	Cooperation in addressing droughts	
	Climate change adaptation	
	Monitoring and exchange	
	Joint assessments	
	Data collection and exchange	$\boxtimes$
	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	$\boxtimes$
	Exchange of information on planned measures	$\boxtimes$
	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		
includ actua colled	Other ( <i>please list</i> ): Since the Strategy covers the whole subject of r management according to the EU WFD, all of the abovementioned topic ded when necessary. Sweden has marked relevant subjects that have been all discussions after the signing of the 2008 MoU (the Strategy). The topiction" and "Joint monitoring" are being discussed between the two countrival and for specific basins.	es may be topics for pics "Data	
	(e) What are the main difficulties and challenges that your country face agreement or arrangement and its implementation, if any?	es with the	
	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	$\boxtimes$	
	Other (please describe): [fill in]		
	(f) What are the main achievements in implementing the agree arrangement and what were the keys to achieving such success?	ement or	
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 mainly that the Strategy contains practical advice and agreed-upon me example on assessment of water bodies and how information can be shared borders, especially at the regional level. In addition it creates a mutual und and basis for cooperation regarding the making, implementation and super the water management plans and the division of basins and their classificat	ethods for across the erstanding ervision of	
	(g) Please attach a copy of the agreement or arrangement or provide address of the document (please attach document or insert web a applicable): A copy of the Strategy is attached		
3.	Is your country a member of any joint body or mechanism for this agrarrangement?	eement or	
Yes [	⊠/No		
If no,	, why not? (please explain): [fill in]		

Wher	e there	is a joint body or mechanism	
	(a) (pleas	If there is a joint body or mechanism, which kind of joint body or meter tick one)?	chanism
		Plenipotentiaries	
		Bilateral commission	
		Basin or similar commission	
		Expert group meeting or meeting of national focal points	
Norwe Strates	egian E gy for	e describe): The Swedish Agency for Marine and Water Management Environment Agency constitute the joint body for the Norwegian-transboundary river basins, in addition to representatives for County or management in both countries.	Swedish
	(b) basin,	Does the joint body or mechanism cover the entire transboundary bas part of a basin or group of basins?	sin, sub-
Yes 🔀	/No [		
	(c) mecha	Which States (including your own) are members of the joint lanism? (Please list): Norway and Sweden	ody or
	(d) Are there any riparian States that are not members of the joint body o mechanism? No		
	(e) the joi	If not all riparian States are members of the joint body or mechanism h nt body or mechanism cooperate with them?	ow does
		No cooperation	
		They have observer status	
		Other (please describe): [fill in]	
	(f) tick th	Does the joint body or mechanism have any of the following features <i>e ones applicable</i> )?	(please
		A secretariat	
		If the secretariat is a permanent one, is it a joint secreta 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 ( <i>please list</i> ): The strategy is based on the requirement ere are representatives from the local, regional and national level from the local concerning the strategy itself.	
	(g)	What are the tasks and activities of this joint body or mechanism? <sup>15</sup>	
		Identification of pollution sources	$\boxtimes$
		Data collection and exchange	$\boxtimes$

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	$\boxtimes$
	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	$\boxtimes$
	Policy development	
	Control of implementation	
	Exchange of experience between riparian States	$\boxtimes$
	Exchange of information on existing and planned uses of water and related installations	
	Settling of differences and conflicts	
	Consultations on planned measures	$\boxtimes$
	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	$\boxtimes$
	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	$\boxtimes$
	Capacity-building	
rivers and ma	Any other tasks ( <i>please list</i> ): Cooperation on liming of acidified lanagement of certain transboundary fish species.	ikes and
(h) operat	What are the main difficulties and challenges that your country faces tion of the joint body or mechanism, if any?	with the
	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 if free from difficulties	is mainly		
(i) Does the joint body or mechanism, or its subsidiary bodies meet regu	ılarly?		
Yes ⊠/No□			
If yes, how frequently does it meet?			
More than once per year			
Once per year	$\boxtimes$		
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 cooperate?	State to		
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 acitivties in water courses which affect water courses in the neighbouring country  2.			
(a) Does this agreement or arrangement specify the area subject to coope	eration?		
Yes ⊠/No □			
If yes, does it cover the entire basin or group of basins and all riparian States	s?		
Yes ⊠/No □			
Additional explanations? The convention between Norway and Sweden encompasses all transboundary basins in Norway and Sweden, concerning some a the use of transboundary water that may affect the amount of water or the quality of in the neighbouring country.	spects of the water		
Or, if the agreement or arrangement relates to a sub-basin, does it cover the enbasin?	ntire sub-		

Yes	□/No □			
Addi	itional explanations? [fill in]			
	ch States (including your own) are bound by the agreement or arranase list): Norway, Sweden	ngement?		
(b) does	If the agreement or arrangement relates to a river or lake basin or s it also cover aquifers?	ub-basin,		
Yes	□/No ⊠			
If ye	s, please list the aquifers covered by the agreement or arrangement: [fil	l 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	$\boxtimes$		
If on	e or several water uses or sectors, please list (check as appropriate):			
Wat	er uses or sectors			
	Industry			
	Agriculture			
	Transport (e.g., navigation)	$\boxtimes$		
	Households			
	Energy: hydropower and other energy types	$\boxtimes$		
	Fisheries	$\boxtimes$		
	Tourism			
	Nature protection			
	Other (please list):			
(d) arrar	What topics or subjects of cooperation are included in the agreement?	ement or		
	Procedural and institutional issues			
	Dispute and conflict prevention and resolution			
	Institutional cooperation (joint bodies)			
	Consultation on planned measures	$\boxtimes$		
	Mutual assistance			
	Topics of cooperation			
	Joint vision and management objectives			
	Joint significant water management issues	$\boxtimes$		
	Navigation			
	Human health			
	Environmental protection (ecosystem)			
	Water quality			

	Water quantity or allocation	$\boxtimes$
	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	$\boxtimes$
	Joint planning and management	
	Development of joint regulations on specific topics	$\boxtimes$
	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) agreer	What are the main difficulties and challenges that your country faces ment or arrangement and its implementation, if any?	with the
	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	$\boxtimes$
	Other (please describe): [fill in]	
(f)	What are the main achievements in implementing the agree	ment o

(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	l	/No	IХ

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

	Water	related species and habitats protection	$\boxtimes$
	Other	measures (please describe):	
		cted areas are designated for drinking water sources in surface waters and for aquifers.	nd inflow
	There of pro	er forms	
		and gravel extraction and forestry are activities strongly regulated by countries.	laws in
	the pr	eration between the two countries is also visible in various projects co rotection of salmon populations (for example liming as a measure ag s of acidification)	
6.	(a) States	Does your country regularly exchange information and data with other in the basin, sub-basin, part of a basin or group of basins?	riparian
Yes [	✓/No [		
	(b)	If yes, how often:	
		More than once per year	$\boxtimes$
		Once per year	
		Less than once per year	
	of the Water	Please describe how information is exchanged (e.g. in connectings of joint bodies): The Agreement from 2018 stipulates two yearly point body, that is experts within the agencies Swedish Agency for Mark Management and the Norwegian Environmental Directorate. One mined to information sharing with executives of both organisations.	meetings arine and
	(d)	If yes, on what subjects are information and data exchanged?	
		Environmental conditions	$\boxtimes$
		Research activities and application of best available techniques	$\boxtimes$
		Emission monitoring data	$\boxtimes$
		Planned measures taken to prevent, control or reduce transboundary impacts	$\boxtimes$
		Point source pollution sources	$\boxtimes$
		Diffuse pollution sources	$\boxtimes$
		Existing hydromorphological alterations (dams, etc.)	$\boxtimes$
		Flows or water levels (including groundwater levels)	
		Water abstractions	
		Climatological information	
		Future planned measures with transboundary impacts, such as infrastructure development	$\boxtimes$
		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 informa	tion platform?		
Yes □/No ⊠					
	(f)	Is the database publicly available?			
Yes 🛭	/No [				
	If yes,	, please provide the web address: <mark>Swe</mark>	dish national da	atabases:	
		http://viss.lansstyrelsen.se/			
		http://miljodata.slu.se/mvm/			
	(g)	What are the main difficulties and ch	allenges to data	a exchange, i	f applicable?
	Frequ	ency of exchanges			
	Timir	ng of exchanges			
	Comp	parability of data and information			
	Limit	ed spatial coverage			
	Inade	quate resources (technical and/or finar	icial)		
	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.				
	coope assess sides	What are the main benefits of data en or group of basins? ( <i>please describe</i> eration. Data exchange permits better sment of the ecological and chemical of the border. This enables us to suggest in improving and protecting our trans	e): Data exchar cooperation are status of the ways gest appropriate	nge permits of the densures the aterbody is a measures and	overall better nat an overall made on both
7.		e riparian States carry out joint monitor of a basin or group of basins?	ring in the trans	boundary bas	in, sub-basin,
Yes [	]/No [	$\boxtimes$			
	(a)	If yes, what does the joint monitoring	g cover?		
			Hydrological	Ecological	Chemical
Roads	or cuefo	ce waters			
		ers in the entire basin			
	Surface waters on the main				

			Hydrological	Ecological	Chemical
Surfa	ce wate	ers in part of the basin			
		e describe [fill in]			
	bound	ary aquifer(s) (connected ted)			
Aquifer(s) in the territory of one riparian hydraulically connected to a transboundary river or lake					
	(b)	If joint monitoring is carried out, ho	w is this done?		
		National monitoring stations connector common stations	eted through a n	etwork	
		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) in]	Please describe the main achievement	nts regarding jo	oint monitorii	ng, if any: [fill
	(d)	Please describe any difficulties expe	erienced with jo	int monitorin	ıg: [fill in]
8.		he riparian States carry out joint asset, part of a basin or group of basins?	essment of the	transbounda	ry basin, sub-
Yes [	⊠/No [				
	(e.g.,	s, please provide the date of the last or surface waters or groundwaters only, assessment methodology applied:	•		
	in the Janua	len and Norway meet regularly at the re e terms of the Water Framework Dir ary 2020 the environmental objectives occur more frequently in order to excl	ective. During were reviewed	the last plard. Meetings a	ning process,
	conne	onal authorities exchanged data in 2 ection with reporting to WISE, the conment Agency			
9.	Have	the riparian States agreed to use joint	water quality s	tandards?	
Yes [	Yes ⊠/No □				
		s, what standards have been applied, se specify which), or have national star			

Water Framework Directive. 10. What are the measures implemented to prevent or limit the transboundary impact of accidental pollution? Notification and communication X Coordinated or joint early warning or alarm system for accidental 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] What are the measures implemented to prevent or limit the transboundary impact of 11. extreme weather events and climate change? Notification and communication  $\boxtimes$  $\boxtimes$ 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] 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  $\boxtimes$ 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

The water quality standards used in transboundary basins are in accordance with the

Academic or research institutions	
Other non-governmental organizations	
General public	
Other (please specify): There are often Sami representative and other areas of cooperation in the mountain areas of northern Sweden	
Availability of information to the public	$\boxtimes$
Consultation on planned measures or river basin management plans <sup>16</sup>	$\boxtimes$
Public involvement	
Other (please specify):	

<sup>&</sup>lt;sup>16</sup> 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

LIST O	The lipurum states. Sweden and Norway	
	e case of an aquifer, what is the nature of the aquifer and its relation with the basin:	the river
Uncor	nfined aquifer connected to a river or lake	
Uncor	nfined aquifer with no or limited relation with surface water	
Confi	ned aquifer connected to surface water	
Confi	ned aquifer with no or limited relation with surface water	
Other		
Please	e describe: All aquifers are connected to rivers and lakes	
Unkno	own	
Perce	entage of your country's territory within the basin, sub-basin, part of a group of basins: unknown	basin or
1.	Is there one or more transboundary (bilateral or multilateral) agreement arrangement(s) on this basin, sub-basin, part of a basin or group of basins?	ent(s) or
	One or more agreements or arrangements exist and are in force	$\boxtimes$
	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 Sagency 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 vattenförval enligt EU:s ramdirektiv för vatten). A prolongation of the Agreement is plant the terms will be decided at a meeting in September 2020.	er
	Norway-Sweden 2011: Strategy for water management 2011-2012: Gränsva Norge och Sverige – Strategi för internationellt samarbete (Transboundary v Norway and Sweden – Strategy for international cooperation). (In Swedish) Strategy was developed on the MoU from 2008 and is is presently undergoin revision following the meeting between the national and regional representation from Norway and Sweden in January 2020.	vater . The ng
	Norway-Sweden 2008: A Memorandum of Understanding, describing the implementation of the WFD by the countries. Norway is not a EU member s is voluntarily implementing IWRM according to the WFD. Since the Strateg 2011 is based on this MoU, the MoU will not be addressed in questions 2-3 Section II.	gy from

	Agre	ement or arrangement is under development	
	No a	greement or arrangement	
		ere is no agreement or arrangement or it is not in force, please expla not and provide information on any plans to address the situation:	in briefly
trans ques	sbound tion 4;	no agreement or arrangement and no joint body or mechanism lary basin, sub-basin, part of a basin or group of basins then if there is no agreement or arrangement, but a joint body or me question 3.	jump to
arra		2 and 3 to be completed for each bilateral or multilateral agree nt in force in the transboundary basin, sub-basin, part of a basin	
Norv	vay – S	Sweden 2018 Agreement on cooperation 2018-2020	
2.	(a)	Does this agreement or arrangement specify the area subject to coope	eration?
	Yes	⊠/No	
	If yes	s, does it cover the entire basin or group of basins and all riparian State	s?
	Yes	⊠/No	
	Addi	itional explanations? [	
	intere ecole	Agreement from 2018 covers all water management issues of transest, for example delineating of waterbodies and water districts, objected status, organising the consultation process, drawing water mass and plans of measure, etc.	lassifying
	betw	the documents are common documents for all basins including aquife teen the two countries, and so render specific written agreements unnecess particular water body.	
	Or, it	f the agreement or arrangement relates to a sub-basin, does it cover the en?	ntire sub-
	Yes	□/No □	
	Addi	itional explanations? [fill in]	
		ch States (including your own) are bound by the agreement or arrange list): [Sweden and Norway]	ngement?
	(b) does	If the agreement or arrangement relates to a river or lake basin or s it also cover aquifers?	ub-basin,
	Yes	⊠/No	
	If yes	s, please list the aquifers covered by the agreement or arrangement: See	e above
	(c)	What is the sectoral scope of the agreement or arrangement?	
		All water uses	$\boxtimes$
		A single water use or sector	
		Several water uses or sectors	
	If one	e or several water uses or sectors, please list (check as appropriate):	

Wat	er 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) arran	What topics or subjects of cooperation are included in the	e agreement or
	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)	$\boxtimes$
	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	$\boxtimes$
	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	$\square$

	Exchange of information on planned measures	$\boxtimes$
	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) agree	What are the main difficulties and challenges that your country fament or arrangement and its implementation, if any?	ces with th
	Aligning implementation of agreement or arrangement with national laws, policies and programmes	$\boxtimes$
	Aligning implementation of agreement or arrangement with regional laws, policies and programmes	
	Lack of financial resources	$\boxtimes$
	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.

		Please attach a copy of the agreement or arrangement or provide as of the document (please attach document or insert web ad table): A copy of the Agreement is attached.	
3.	•	or country a member of any joint body or mechanism for this agreement?	ement or
Yes 🛭	☑/No [		
	If no,	why not? (please explain): [	
Wher	e there	e is a joint body or mechanism	
	(a) (pleas	If there is a joint body or mechanism, which kind of joint body or meter tick one)?	echanism
		Plenipotentiaries	
		Bilateral commission	
		Basin or similar commission	
		Expert group meeting or meeting of national focal points	
Manaş agreei	-	Other (please describe): The Swedish Agency for Marine and and the Norwegian Environment Agency constitute the joint body	
	(b) basin,	Does the joint body or mechanism cover the entire transboundary bapart of a basin or group of basins?	sin, sub-
Yes ⊠/No □			
	(c) mecha	Which States (including your own) are members of the joint anism? ( <i>Please list</i> ): [Sweden and Norway]	body or
	(d) mecha	Are there any riparian States that are not members of the joint anism? (please list): [No]	body or
	(e) the joi	If not all riparian States are members of the joint body or mechanism hint body or mechanism cooperate with them?	now does
		No cooperation	
		They have observer status	
		Other (please describe): [fill in]	
	(f) tick th	Does the joint body or mechanism have any of the following feature to enes applicable)?	s (please
		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? <sup>17</sup>	
	Identification of pollution sources	
	Data collection and exchange	$\boxtimes$
	Joint monitoring	
	Maintenance of joint pollution inventories	
	Setting emission limits	
	Elaboration of joint water quality objectives	$\boxtimes$
	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	$\boxtimes$
	Control of implementation	
	Exchange of experience between riparian States	$\boxtimes$
	Exchange of information on existing and planned uses of water and related installations	$\boxtimes$
	Settling of differences and conflicts	
	Consultations on planned measures	$\boxtimes$
	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	$\boxtimes$
	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):	
(1-)	What are the main difficulties and aboltoness that are a continuous forces	:41

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

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 de	elays	
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 measu	ires	
Please describe, if true:	[fill in]	
Unexpected extreme even	ents	
Please describe, if any:	[fill in]	
Lack of information and	l reliable forecasts	
Please describe, if any:	[fill in]	
Others ( <i>please list and describe, as appropriate</i> ): 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.		laces in their water when it comes to
(i) Does the joint body or r	mechanism, or its subsidiary bodies	s meet regularly?
Yes ⊠/No□		
If yes, how frequently does it n	neet?	
More than once per year	r	
Once per year		
Less than once per year		
The Agreement from 2018 stip	evements with regards to the joint loulates at least two yearly meetings. This has stimulated an ongoing disenthe countries.	and communications
(k) Did the joint body or r cooperate?	nechanism ever invite a non-ripar	rian coastal State to
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 cooper	ation?	
	Yes ⊠/No □			
	If yes, does it cover the entire basin or group of basins and all riparian States?			
	Yes ⊠/No □			
	Additional explanations?			
Swede		trategy names and covers all of the transboundary basins between Norvading aquifers.	way and	
	Or, if basin?	the agreement or arrangement relates to a sub-basin, does it cover the en	tire sub-	
	Yes [	]/No [		
	Additi	ional explanations? [fill in]		
		n States (including your own) are bound by the agreement or arrang se list): Norway, Sweden	gement?	
	(b) does i	If the agreement or arrangement relates to a river or lake basin or sult also cover aquifers?	o-basin,	
	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	$\boxtimes$	
		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	r uses or sectors		
		Industry		
		Agriculture		
		Transport (e.g., navigation)		
		Households		
		Energy: hydropower and other energy types		
		Fisheries		
		Tourism		
		Nature protection		
Frame	ework I	Other ( <i>please list</i> ): The Strategy concerns all water uses under EU! Directive (WFD), as it is implemented in Swedish legislation.	s Water	
	(d) arrang	What topics or subjects of cooperation are included in the agreement?	nent or	
		Procedural and institutional issues		
		Dispute and conflict prevention and resolution		
		Institutional cooperation (joint bodies)		

	Consultation on planned measures	$\boxtimes$
	Mutual assistance	
	Topics of cooperation	
	Joint vision and management objectives	
	Joint significant water management issues	$\boxtimes$
	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	$\boxtimes$
	Exchange of information on planned measures	$\boxtimes$
	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) agree	What are the main difficulties and challenges that your country face ment or arrangement and its implementation, if any?	s with the
	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	$\boxtimes$
		Other (please describe): [fill in]	
	(f) arrang	What are the main achievements in implementing the agreed gement and what were the keys to achieving such success?	ment or
	have Mana and a	Strategy of 2008/2011 and the implementation of the EU WFD in both of led to a better understanding of the importance of Integrated Water Fagement in whole river basins, also of exchange of knowledge about water unthropogenic impact close to the border, and on the whole a better coordinate to the border of the whole and the whole and the whole are the coordinate to the border.	Resource or quality
	mainlexam borde and b	teys to success are, apart from centuries of good cooperation on shared really that the Strategy contains practical advice and agreed-upon methaple on assessment of water bodies and how information can be shared acres, especially at the regional level. In addition it creates a mutual under basis for cooperation regarding the making, implementation and supervater management plans and the division of basins and their classification	hods for cross the standing vision of
		Please attach a copy of the agreement or arrangement or provide ess of the document ( <i>please attach document or insert web adacable</i> ): A copy of the Strategy is attached	
3.		ur country a member of any joint body or mechanism for this agree gement?	ement or
Yes 🛭	<b></b> /No [		
If no,	why no	ot? (please explain): [fill in]	
Wher	e ther	e is a joint body or mechanism	
	(a) (pleas	If there is a joint body or mechanism, which kind of joint body or me <i>se tick one</i> )?	chanism
		Plenipotentiaries	
		Bilateral commission	
		Basin or similar commission	
		Expert group meeting or meeting of national focal points	
Norwe Strate	egian gy for	the describe): The Swedish Agency for Marine and Water Management Environment Agency constitute the joint body for the Norwegian-transboundary river basins, in addition to representatives for County ter management in both countries.	Swedish
	(b) basin	Does the joint body or mechanism cover the entire transboundary bar, part of a basin or group of basins?	sin, sub-
Yes 🛭	No [		
	(c) mech	Which States (including your own) are members of the joint anism? ( <i>Please list</i> ): Norway and Sweden	body or

(d) mecha	Are there any riparian States that are not members of the joint anism? No	body o
(e) the jo	If not all riparian States are members of the joint body or mechanism h int body or mechanism cooperate with them?	ow does
	No cooperation	
	They have observer status	
	Other (please describe): [fill in]	
(f) tick th	Does the joint body or mechanism have any of the following features are ones applicable)?	s (pleas
	A secretariat	
	If the secretariat is a permanent one, is it a joint secreta 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 ( <i>please list</i> ): The strategy is based on the requirement here are representatives from the local, regional and national level from the local concerning the strategy itself.	
(g)	What are the tasks and activities of this joint body or mechanism? <sup>18</sup>	
	Identification of pollution sources	$\boxtimes$
	Data collection and exchange	$\boxtimes$
	Joint monitoring	
	Maintenance of joint pollution inventories	
	Setting emission limits	
	Elaboration of joint water quality objectives	$\boxtimes$
	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	$\boxtimes$
	Policy development	
	Control of implementation	
	Exchange of experience between riparian States	
	Exchange of information on existing and planned uses of water and related installations	$\boxtimes$

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	$\boxtimes$	
	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	$\boxtimes$	
	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	$\boxtimes$	
	Capacity-building		
	Any other tasks (please list): [fill in]		
(h) oper	What are the main difficulties and challenges that your country fation of the joint body or mechanism, if any?	aces with the	
	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 from difficulties			
(i) Does the joint body or mechanism, or its subsidiary bodies meet regularly?			
Yes ⊠/No□			
If ye	es, how frequently does it meet?		
	More than once per year		

free

	Once per year	$\bowtie$
	Less than once per year	
	(j) What are the main achievements with regards to the joint body or mech Mutual agreement on reporting status of the transboundary basins within the Water Framework Directive and to further establish cooperation betwee countries on a regional level, for instance with data sharing	he EU's
	(k) Did the joint body or mechanism ever invite a non-riparian coastal cooperate?	State to
Yes [	]/No 🔀	
States coasta	please give details. If no, why not, e.g. are the relevant coastal States also and therefore already members of the joint body or mechanism? There are on States: Sweden and Norway, both riparian States and members of the coordinsm.	nly two
4.	Have joint objectives, a common strategy, a joint or coordinated management action plan been agreed for the basin, sub-basin, part of a basin or group of basin.	
Yes [	☑/No □	
	If yes, please provide further details:	
	The Norwegian-Swedish Strategy for transboundary water as well as the Agron cooperation regulate the cooperation and set joint objectives for all shared and aquifers between the countries.	
	The Agreement also lists the differences in assessment, waterbody delineat characterization that should be addressed for the transboundary waters in term Water Framework Directive. The main conclusion is that the principles of the stream country should be used. The national management plans for the interriver basins can only be approved for the territory in the country that has wriplans, but the plans are available for public hearing in both countries.	ns of the down-national
5.	How is the transboundary basin,—sub-basin, part of a basins or group of protected, including the protection of ecosystems, in the context of sustainarational 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	$\boxtimes$
	Other measures (please describe):	
	Protected areas are designated for drinking water sources in inflow areas for a	quifers.
	There are several protected areas for the protection of groundwater dependent and species in for example natural springs.	habitats

6.	(a) States	Does your country regularly exchange information and data with ot s in the basin, sub-basin, part of a basin or group of basins?	her riparian
Yes [	⊠/No [		
	(b)	If yes, how often:	
		More than once per year	$\boxtimes$
		Once per year	
		Less than once per year	
	of the Water	Please describe how information is exchanged (e.g. in connergs of joint bodies): The Agreement from 2018 stipulates two years joint body, that is experts within the agencies Swedish Agency for Management and the Norwegian Environmental Directorate. One ned to information sharing with executives of both organisations.	ly meetings Marine and
	(d)	If yes, on what subjects are information and data exchanged?	
		Environmental conditions	$\boxtimes$
		Research activities and application of best available techniques	$\boxtimes$
		Emission monitoring data	$\boxtimes$
		Planned measures taken to prevent, control or reduce transboundary impacts	$\boxtimes$
		Point source pollution sources	$\boxtimes$
		Diffuse pollution sources	$\boxtimes$
		Existing hydromorphological alterations (dams, etc.)	$\boxtimes$
		Flows or water levels (including groundwater levels)	
		Water abstractions	$\boxtimes$
		Climatological information	
		Future planned measures with transboundary impacts, such as infrastructure development	$\boxtimes$
		Other subjects (please list): [fill in]	
		Other comments, e.g. spatial coverage of data and information According to the Nordic Saami Convention of 2017 (being re-writt the Sámi people have the rights to water and other natural resoutheir land, which covers areas of northern Sweden, Norway, and Fin are often Sámi representatives in for example Water Councils and written in Sámi language is distributed when relevant.	ten in 2020) arces within aland. There
	(e)	Is there a shared database or information platform?	
Yes [	]/No [	$\boxtimes$	
	(f)	Is the database publicly available?	
Yes [	/No [		
	for gr	, please provide the web address: The Swedish Geological Survey oundwater data (https://www.sgu.se/grundvatten/), however samplicated and cannot be viewed by the public.	

	ifer maps can be found at //viss.lansstyrelsen.se/	t the Swedish	national da	tabase VISS:
(g)	What are the main difficulties a	and challenges to d	ata exchange,	if applicable?
Freq	quency of exchanges	_		
Tim	ing of exchanges			
Com	nparability of data and information	1		
Lim	ited spatial coverage			
Inad	lequate resources (technical and/or	financial)		
data to fi deve	er (please describe): There are usual. There is good data exchange at the nd and to share water quality data elopment. This is especially true ulated and mountainous.	ne regional and loca a than information	al level. Howe about planne	ever, it is easier and measures or
coor data	What are the main benefits of on or group of basins? (please deperation. Measures can be coordinated means that both impact and measure all parties if there is impact on the quantity of the parties of the parties if there is impact on the quantity of the parties in the parties if there is impact on the quantity of the parties in the p	scribe): Data exchated and performed ures are "out in the	ange permits with better ac open" and it	overall better curacy. Shared
	he riparian States carry out joint mof a basin or group of basins?	onitoring in the trar	nsboundary ba	ısin, sub-basin,
Yes _/No	$\boxtimes$			
(a)	If yes, what does the joint mon	itoring cover?		
		Hydrological	Ecological	Chemical
Border surf	ace waters			
Surface was	ters in the entire basin			
Surface was	ters on the main			
Surface was	ters in part of the basin			
plea	se describe [fill in]			
Transbound or unconnec	dary aquifer(s) (connected cted)			
riparian hyd	in the territory of one draulically connected to a ary river or lake			
(b)	If joint monitoring is carried ou	nt, how is this done	?	
	National monitoring stations co or common stations	onnected through a	network	
	Please describe: [fill in]			
	Joint and agreed methodologies	S		

		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) in]	Please describe the main achievements regarding joint monitoring, if	any: [fill
	(d)	Please describe any difficulties experienced with joint monitoring: [f	ill in]
8.		ne riparian States carry out joint assessment of the transboundary ba, part of a basin or group of basins?	ısin, sub-
Yes [	⊠/No [		
	(e.g.,	, please provide the date of the last or only assessment, the frequency of surface waters or groundwaters only, pollution sources, etc.) of the assessment methodology applied:	-
	in the Janua	en and Norway meet regularly at the regional level to discuss water many terms of the Water Framework Directive. During the last planning ary 2020 the environmental objectives were reviewed. Meetings at the occur more frequently in order to exchange information.	process,
	conne	nal authorities exchanged data in 2017 on transboundary water contaction with reporting to WISE, the WFD database run by the bonnent Agency	
9.	Have	the riparian States agreed to use joint water quality standards?	
Yes [	✓/No [		
	(pleas	s, what standards have been applied, e.g. international or regional states see specify which), or have national standards of the riparian States been water quality standards used in transboundary basins are in accordance reframework Directive.	applied?
10.		are the measures implemented to prevent or limit the transboundary inental pollution?	mpact of
		Notification and communication	$\boxtimes$
		Coordinated or joint early warning or alarm system for accidental water pollution	
		Other ( <i>please list</i> ): Sweden has implemented several EU directives colving dangerous substances, monitoring of diffuse pollutants, and air q rborne load of S and N).	
		No measures	
		If not, why not? What difficulties does your country face in in place such measures?: [fill in]	n putting
11.		are the measures implemented to prevent or limit the transboundary in me weather events and climate change?	mpact of

	Notification and communication	$\boxtimes$
	Coordinated or joint alarm system for floods	$\boxtimes$
	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 in place such measures?: [fill in]	putting
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 mana, in the basin, sub-basin, part of a basin or group of basins?	gement
Yes 🗵	]/No [_]	
	If yes, how? (please tick all applicable)	
	Stakeholders have observer status in a joint body or mechanism	$\boxtimes$
	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	
in the	Other (please specify): There are often Sami representatives in Water C mountain areas of northern Sweden/Norway.	ouncils
	Availability of information to the public	$\boxtimes$
	Consultation on planned measures or river basin management plans <sup>19</sup>	$\boxtimes$
	Public involvement	$\boxtimes$
	Other (please specify): [fill in]	

<sup>&</sup>lt;sup>19</sup> 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

(a)

1.

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.

Does your country's national legislation, policies, action plans and strategies

refer t	o measures to prevent, control	and reduce any transboundary impact?	
Yes ⊠/No [			
If yes, please	briefly describe the main nati	onal laws, policies, action plans and strai	tegies
The Swedish	Environmental Code (1998:80	08) contains provisions in chapter 6 on EL	A/SEA.
gränsälvsöve		concerning the Torne river "Lag (2010:8 crige och Finland" governs environ	
transboundar		Norway as well as with Finland con s regulated in the Swedish environmenta.	
	ter Framework Directive is er Quality Management Ordin	also implemented in Swedish law throughned 2004:660.	igh the
(b)	Does your country's legislati	on 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 pri	inciples are implemented at the national le	evel:
ordinances. Tode in chaprules of consiseen in the leg	The principle of sustainable deer 1, § 1 and the precautionary deration as well as the pollute	Swedish Environmental Code and its evelopment is one of the main objectives principle is found in chapter 2 among the er pays principle. The user pays principle drinking water supply or sanitation service by the user.	s of the general can be
energy	water discharges and other po , municipal, wastewater mana	a national licensing or permitting systematics of a national licensing or permitting systematics of the national licensing sys	
Yes ⊠/No [			
If yes, for wh			_
Indust	•		
Minin	_		
Energ			
Munic	•		
Livest	ock 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 carries 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 (exept 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	$\boxtimes$
	Norms for uses of manure	$\boxtimes$
	Permitting system	$\boxtimes$
	Bans on or norms for use of pesticides	$\boxtimes$
	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	$\boxtimes$
	Wetland reconstruction	$\boxtimes$
	Sedimentation traps	$\boxtimes$
	Chemical measures	$\boxtimes$
designed fo	Others (please list): "Sedimentation traps" means constructor phosphorus retention. "Chemical measures" means structura	
	Other types of measures	
	If yes, please list: [fill in]	
(f) reso	What are the main measures which your country takes surces allocation and use efficiency?	to enhance water
Plea	ase tick as appropriate (not all might be relevant)	
	A regulatory system regarding water abstraction	
	Monitoring and control of abstractions	
	Water rights are defined	
	Water allocation priorities are listed	

	Water-saving technologies		
	Advanced irrigation techniques		
	Demand management activities		
	Other means (please list)		
(g)	Does your country apply the ecosystems approach?		
Yes ⊠/No [			
If yes, please describe how: 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) groun	Does your country take specific measures to prevent the polledwaters?	ution of	
Yes ⊠/No □			
protected by	e briefly describe the most important measures: Drinking water aqual law and have designated protected areas. Anthropogenic impact on grouification, acidification, pesticides, heavy metals, etc, is monitored in a see aquifers.	ındwater	
2. Do y (EIA)	our national laws require transboundary environmental impact asset?	sessment	
Yes ⊠/No □			
If yes proce	, please briefly describe the legislative basis, and any related imple dures.	ementing	
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 transwaters?	boundary
	Differences between national administrative and legal frameworks	$\boxtimes$
	Lack of relevant data and information	$\boxtimes$
	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 are boundary basins are sparsely populated, mountainous, and often far from roates measures and monitoring difficult and expensive.	
2.	What have been the main achievements in-cooperating on transboundary w	aters?
	Improved water management	$\boxtimes$
	Enhanced regional integration, i.e. beyond water	
	Adoption of cooperative arrangements	$\boxtimes$
	Adoption of joint plans and programmes	$\boxtimes$
	Long-lasting and sustained cooperation	$\boxtimes$
	Financial support for joint activities	
	Stronger political will for transboundary water cooperation	$\boxtimes$
	Better knowledge and understanding	$\boxtimes$
	Dispute avoidance	
	Stakeholder engagement	
	Please list other achievements, keys to achieving success, and/or provide examples: The permanent secretariat of the Torne River commission is a cer for water cooperation between Finland and Sweden. With Norway, the co has increased due to the demands for IWRM within the WFD, which is alwith SDG 6.5.	ntral poin
3.	Please indicate which institutions were consulted during the completic questionnaire	on of the
	Joint body or mechanism	$\boxtimes$
	Other riparian or aquifer countries	$\boxtimes$
	National water management authority	$\boxtimes$
	Environment agency/ authority	
	Basin authority (national)	$\boxtimes$
	Local or provincial government	

Geological survey (national)	$\boxtimes$	
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 neigbouring 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.	