

Comparative Study of Pressures and Measures in the Major River Basin Management Plans

Task 1 – Governance

Final Report
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This report has been prepared for DG Environment of the European Commission for Task 1 the *Comparative Study of Pressures and Measures in the Major River Basin Management Plans*.

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The views expressed herein are those of the consultants alone and do not necessarily represent the official views of the European Commission.

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Fact Sheets (separate documents)

1. Member State Governance Fact Sheets (covering administrative arrangements, legal nature of RBMPs and enforcement systems)

- Austria
- Belgium
- Bulgaria
- Cyprus
- Czech Republic
- Germany
- Denmark
- Estonia
- Greece
- Spain
- Finland
- France
- Hungary
- Ireland
- Italy
- Lithuania
- Luxembourg
- Latvia
- Malta
- Netherlands
- Poland
- Portugal
- Romania
- Sweden
- Slovenia
- Slovakia
- United Kingdom

2. International Coordination Fact Sheets (separate documents)

Cooperation Category 1

- Danube River Basin (AT, BG, CZ, DE, HU, IT, PL, RO, SI, SK, AL, BA, CH, HR, MD, ME, MK, RS, UA)
- Elbe River Basin (AT, CZ, DE, PL)
- Meuse River Basin (BE, DE, FR, LU, NL)
- Odra River Basin (CZ, DE, PL)
- Rhine River Basin (AT, BE, DE, FR, IT, LU, NL, CH, LI)
- Ems River Basin (DE, NL)
- Scheldt River Basin (BE, FR, NL)
- UK-IE River Basins (Neagh Bann, North Western RBD (Erne, Foyle), Shannon)

Cooperation Category 2

- ES-PT River Basins (Duero/Douro, Guadiana, Miño/Minho, Lima/Limia, Tajo/Tejo)
- ES-FR-AD River Basins (Garonne, Nive, Nivelle, Bidasoa, Ebro, Segre)
- EL-AL-MK River Basins (Lake Prespa as part of the Drin/Drim; Aoos/Vjosa)
- IT-FR-CH River Basins (Po, Ticino/Lago Maggiore, Adda/Lake Como)
- IT-SI River Basins (Isonzo/Soca)
- FR-IT-CH River Basins (Rhône, Doubs, Allaine, Arve, Lac Léman/Lake Geneva)
- LV-EE River Basins (Gauja/Koiva)
- EE-LV-RU River Basins (Narva including Lake Peipsi/Chudkoe, Lake Pihkva/Pskovskoye))
- FI-NO River Basins (Pasvik/Paatsjoki, Naatamo, Teno/Tana)
- FI-RU River Basins (Tuloma/Tuulamaajoki, Jakobselv, Kemijoki, Oulujoki, Kem/Viena, Vuoksi RBD, Jänisjoki, Koutajoki, Kiteenjoki-Tohmajoki, Hitolanjoki, Juustilanjoki, Saimaa Canal, Hounijoki, Tervajoki, Vilajoki, Kaltonjoki, Urpalanjoki, Vaalimaanjoki)
- SE-FI-NO River Basins (Torneälven/Tornionjoki)
- SE-NO River Basins (Signalälven, Mälselvdassdraget/Malangen, Skjomavassdraget, Luleälven, Umeälven, Piteälven, Angermanälven, Indalsälven, Dalälven, Hellemovassdraget, Kobbälva, Fagerbakkvassdraget, Saltälva, Ranavassdraget, Rossälva, Vefsna, Verdalsvassdraget, Stjordalsvassdraget, Nidelva, Glomma, Klarälven/Trysil - Göta älv/Vänern Göta/ (including the Sub—basins Norsälven/Byälven/Upperudälven) Haldenvassdraget/Enningsdal, Strömsån)
- PL-MD-UA River Basins (Dniester/Dnistr/Nistru)

Cooperation Category 3

- LT-LV River Basins (Lielupe, Venta)
- LT-LV-RU-BY River Basins (Daugava/Sapadnaja Dwina, Nemunas/Nieman/Neman/Nyoman, Neris/Wilia)
- BG-TR River Basins (Rezovska/Mutludere, Veleka)
- EL-BG River Basins (Mesta-Nestos, Struma-Stymonas)
- DE-DK River Basins (Vidaa/Wiedau, Krusaa/Krusau, Jardelunde Groeft/Jardelunder Graben/Bongsieler Kanal)
- PL-SK-CZ-LT-BY-UA River Basins (Vistula, Bug, Poprad, Dunajec)
- PL-RU River Basins (Swieza, Jarft)

Cooperation Category 4

- EL-BG-TR River Basins (Maritsa-Evros/Meric)
- EL-MK-RS River Basins (Axios/Vardar)
- IT-CH River Basins (Adige/Etsch)

Executive Summary and main findings

This report presents the main results for Task 1 of the *Comparative Study of Pressures and Measures in the Major River Basin Management Plans*. Task 1 covers governance and legal aspects across four areas:

1. Administrative arrangements, focusing on Member State authorities that implement the Water Framework Directive (WFD)
2. International coordination mechanisms for international river basins
3. Enforcement, control, inspection and sanction systems within Member States
4. The legal nature of the river basin management plans

The main findings of the report include the following:

Integration across geographical scales. The EU has complex, multi-level governance structures for water policy. At international level, coordination and cooperation appear strong in Europe's large shared river basins, such as the Danube and the Rhine, but less so in many other shared river basins. At national level, several levels of administration are involved in water governance in most Member States. Moreover, separate authorities are often involved in areas such as monitoring and enforcement.

Policy integration. The WFD emphasises the importance of addressing pressures from key economic sectors, such as agriculture. In terms of the roles of the main authorities responsible for the WFD, these are involved in other relevant water and environmental fields as well as in other sector policies – but there are gaps in key areas, such as with respect to nitrates, energy and transport, where WFD authorities which are directly or on a shared basis involved tend to be less numerous. The analysis shows that river basin management plans (RBMPs) have legal effect in most Member States; however, this role is often not clearly specified – for example, only in a few Member States do they directly influence existing permits.

Transparency and public and stakeholder involvement. The involvement of stakeholders in both the preparation of RBMPs as well as their implementation has been a key accomplishment of the WFD: the study shows that public participation mechanisms were used in all Member States. At least 18 Member States have established advisory bodies involving stakeholders, either at national or river basin or other sub-national levels. Moreover, information is available to the public on the RBMPs. In all Member States, RBD web sites have been set up and the RBMPs can be downloaded.

Enforcement mechanisms. In its Preamble, the Water Framework Directive underlines the importance of the 'full implementation and enforcement' of existing environmental legislation (recital 53). Many differences are seen across the Member States in terms of their approaches to enforcement in the area of water governance as well as concerning the number of inspections and level of sanctions. At the same time, data on enforcement are incomplete in many Member States, hindering both an overview of national work in this area as well as the achievement of EU goals to strengthen the implementation and enforcement of environmental legislation.

Allocation of financial resources. Financial resources are a key element for the implementation of the Programmes of Measures (PoMs). In most Member States, it appears that the information available on investment costs and funding is rather weak. The RBMPs and PoMs are often not the appropriate instrument to allocate government funds, which are committed via budgets. Nonetheless, in the current financial crisis, the lack of detailed information raises questions about the effectiveness of implementation of many RBMPs and PoMs.

Adaptability and long-term strategic planning. The information gathered shows that the Water Framework Directive has prompted a few Member States to adapt and strengthen their authorities for water governance and in some cases also to strengthen enforcement. The WFD also has been an important stimulus for stronger international coordination and cooperation. The *Blueprint to Safeguard Europe's Water Resources* highlights the need to address ongoing and future challenges, including adaptation to climate change. These challenges may also require new and innovative approaches to water governance.

Overall, the study indicates that policy integration and public participation are being addressed in EU water governance. However, many authorities are involved in the implementation of the WFD, both within Member States and also at international level. The study has shown that coordination mechanisms are in place in Member States, both among administrative levels as well as across policy sectors. International coordination is strong in the EU's largest shared river basins, and it is expected to improve in many others. It has not been possible, however, to fully assess the functioning and effectiveness of these mechanisms. In addition, in many Member States there appear to be gaps with respect to integration and co-ordination with respect to certain areas, such as nitrates, energy and transport. Similarly, there are significant differences between Member States, for example, with respect to the legal effects of the RBMPs. While transparency and public participation has been strong, information on enforcement and on costs and financing is weak in many Member States. The results suggest that further attention to governance is needed at EU level, to achieve the WFD's goals and moreover address the ongoing and future challenges for Europe's water resources outlined in the *Blueprint for Safeguarding Europe's Water Resources*¹.

¹ http://ec.europa.eu/environment/water/blueprint/index_en.htm

Part I. Overview

1 Introduction

The *Comparative Study of Pressures and Measures in the Major River Basin Management Plans* reviewed the implementation of the Water Framework Directive (WFD), focusing on the first round of river basin management plans (RBMPs) prepared by Member States. The study overall was comprised of four tasks, and Task 1 covered governance and legal aspects.

This report presents the results for Task 1. As such, it provides a first overview of governance aspects concerning implementation of the WFD across all 27 Member States (MS) of the European Union. The work for Task 1 included an assessment of the first round of RBMPs, together with further information gathering carried out in 2012. The report thus provides an initial review that could support further, in-depth work on governance and implementation of the WFD.

1.1 Definitions of governance

A range of definitions have been used for the terms ‘governance’ and ‘water governance’. While this report has not made an in-depth analysis of this field, some key definitions are presented in the box below. The report itself focuses on a specific aspect of water governance: it looks at the legal provisions and Member State authorities for the implementation of the Water Framework Directive and related water legislation. These are considered in particular in the context of river basin management and planning within Member States and also in international river basins in the EU and across EU border.

Box 1. Key definitions for governance and water governance

The Global Water Partnership (GWP) defines water governance broadly as ‘the range of political, social, economic and administrative systems that are in place to develop and manage water resources, and the delivery of water services, at different levels of society’. Water governance, according to OECD, encompasses administrative systems, formal institutions (including laws and policies) as well as informal institutions such as power relationships and practices. This can include the political level, and OECD also cites the Stockholm International Water Institute (SIWI), which has stated that water governance ‘determines who gets what water, when and how’.²

The European Commission defined ‘European governance’ in 2001 as referring to the rules, processes and behaviour that affect the way in which powers are exercised at European level, particularly as regards openness, participation, accountability, effectiveness and coherence.³

This report has a more restricted approach than either of these broad definitions. It focuses on authorities and legal frameworks for water management – and thus at rules and processes, a key element cited by for European governance. However, it uses a different set of criteria to focus on issues in the water sector.

While this report does not focus on accountability, it is an important element in governance overall and also for the Water Framework Directive. The World Bank describes accountability in the following terms:⁴

² OECD, Water Governance in OECD Countries: A Multi-Level Approach, OECD studies on Water, 2011

³ European Commission, European governance: a white paper, 2001

⁴ World Bank, Accountability in Government, undated

Accountability ensures actions and decisions taken by public officials are subject to oversight so as to guarantee that government initiatives meet their stated objectives and respond to the needs of the community they are meant to be benefiting.⁵

This approach further divides accountability into two stages: ‘answerability’, the obligation of government to provide information about decisions and actions; and enforcement when there are violations of this obligation.

EU governments have a range of obligations for accountability on environment and specifically for water governance. Notably, for environmental actions in general, the Aarhus Convention sets out requirements for public information, participation and access to justice.⁶ The Water Framework Directive⁷ contains provisions for public information and consultation on river basin management plans (RBMPs) in its Article 14. The Directive also has a range of reporting requirements for the Member States to the European Commission, and for the Commission to the European Parliament and the Member States

1.2 Components of Task 1

The work of Task 1 was composed of four sub-tasks that looked at key elements of governance related to the WFD:

- Task 1a: Administrative arrangements, in particular the Member State authorities that implement the WFD
- Task 1b: International coordination mechanisms for international river basins
- Task 1c: Enforcement, control, inspection and sanction systems within Member States
- Task 1d: The legal nature of the river basin management plans

This part of the report provides an overview that synthesises the results of the four sub-tasks. The subsequent parts then present the detailed results for each sub-task. A set of Member State Governance fact sheets have been prepared for Tasks 1a, 1c and 1d, as well as river basin specific Transboundary cooperation fact sheets for Task 1b: these documents have been provided separately.

The overview describes the methodology employed for information gathering and analysis (Section 2). The report then presents (Section 3) the results in terms of the following criteria for good water governance:

- *Strong integration across geographical scales*

The Water Framework Directive establishes an innovative approach for water management based on river basins, the natural hydrological units. This approach, however, needs to interact with existing administrative units, both within Member States and internationally, as many water basins cross national and administrative boundaries. Ensuring integration across administrative boundaries and levels is necessary for good governance and for effective water policy: the OECD study found that institutional and territorial fragmentation

⁵ World Bank:

<http://siteresources.worldbank.org/publicsectorandgovernance/Resources/AccountabilityGovernance.pdf>

⁶ The UNECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, 1998

⁷ Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy

and badly managed multi-level governance are key challenges for effective water governance.

- *Effective policy integration*

The Water Framework Directive highlights the role of economic sectors, such as agriculture and energy, in shaping pressures on Europe's waters. Putting in place mechanisms that ensure these sectors address water issues and integrate water objectives are thus a key element of water governance.

- *Transparency and public and stakeholder involvement*

The WFD calls for public and stakeholder involvement, including in the preparation of RBMPs. Moreover, public information and participation are key elements of EU governance as well as rights established in the Aarhus Treaty and related EU legislation, as described in the box above on governance.

- *Effective enforcement mechanisms*

The WFD also highlights the need for effective enforcement of its requirements; moreover, the 2001 *Recommendation of the European Parliament and European Council on minimum criteria for environmental inspections in the Member States* (RMCEI) calls on Member States to address the disparities in enforcement systems across the EU. Enforcement mechanisms are consequently a key element of water governance.

- *Allocation of sufficient financial resources*

A key element for each river basin district is the preparation of a Programme of Measures (PoM) to achieve the WFD objectives. Identify the financial needs of these measures and the financial resources for them are thus key elements for the PoMs and for effective governance more generally.

- *Adaptability and long-term strategic planning*

For many Member States, the WFD has put in place a new approach to water management. This can require changes in governance and institutions at national level. In the coming years, Member States will also face new challenges such as climate change impacts: these have been highlighted in the *Blueprint to Safeguard Europe's Water Resources*. Thus, governance systems will need to provide for adaptable responses and, more generally, will need to prepare for long-term challenges.

The analysis across these six areas provides a basis for tentative conclusions regarding the *effectiveness* of water governance under the WFD: these conclusions, together with possible areas for further work, are discussed in Section 4 of this overview report.

2 Methodology

The four sub-tasks followed a similar overall approach, in terms of the sequence of analytical steps; as the topics differ in terms of focus and information base, the methodology for each sub-task also involved specific elements. This section provides an overview of the methodological approach, both for Task 1 as a whole and for its four sub-tasks.

2.1 Common elements

The four sub-tasks under Task 1 were carried out in parallel. All four followed a common sequence of analytical steps:

- Preparation of the templates for the sub-task fact sheet, in close cooperation with DG Environment. For Tasks 1a, 1c and 1d, each fact sheet referred to a Member State; for Task 1b, each referred to a shared river basin or sub-basin.
- Desk research for initial information gathering. The extent of, and approach to, information gathered varied across the four sub-tasks: for example, for Tasks 1a, 1b and 1d, the fact sheets were completed by experts based on national and international documents. For Task 1b, interviews were carried out with technical experts, representatives of the basin sharing Member States (though not countries outside the EU) and international river basin organisations (for Task 1b, selected interviews as well); for Task 1c, nearly all fact sheets had gaps for several questions where information was not available via web and document searches.
- The fact sheets were then sent to Member State representatives of the Strategic Coordination Group (SCG) for the Water Framework Directive. SCG representatives were asked to review, complement, and correct the fact sheets. For Tasks 1a, 1b and 1d, this was a 'validation' of the information already gathered; for Task 1c, this phase represented an important information-gathering step. As noted above, comments were received from some but not all Member States.
- For Task 1c only, further information was gathered through follow-up interviews. Two interviews were requested for each Member State, with officials working on policy development and on enforcement, respectively. In nearly all cases, an SCG representative was asked to provide the policy interview. The enforcement interview was requested via national representatives to IMPEL, the EU Network for the Implementation and Enforcement of Environmental Law.
- The final task sheets were then used to prepare reports for each sub-task. Due to the delays in preparing some task sheets and also in receiving national responses, the preparation of sub-task reports has been an iterative process.

Each sub-task thus produced a report (found in the next parts of this overall report). Moreover, the work on Task 1 produced two sets of fact sheets: the first set provides a separate sheet on each Member State, bringing together information on administrative arrangements, legal nature of RBMPs and enforcement mechanisms; the second set describes international river basins and sub-basins.

The review and validation step was important for all four sub-tasks. Here, it should be noted that responses were received from some but not all Member States, as show in the table below.

Table 1: Member State review and validation

MS	Fact sheet for Tasks 1a, 1c and 1d (Member State authorities, enforcement systems and legal nature of RBMPs)	Fact sheet for Task 1b (international coordination)
AT	*	✓
BE	✓	✓
BG	✓	✓
CY	✓	n/a
CZ	✓	
DE	*	✓
DK	✓	✓
EE	✓	
EL		
ES	✓	
FI	✓	✓
FR		
HU	✓	✓
IE	✓	✓
IT	*	✓
LT	✓	✓
LU	✓	✓
LV	✓	✓
MT		n/a
NL	✓	✓
PL		
PT	*	
RO	✓	✓
SE	✓	✓
SI	✓	
SK	✓	✓
UK	✓	✓

* Partial response or follow-up

n/a – not applicable

2.2 Task 1a. Overview of administrative arrangements

This task sought to provide an initial overview or mapping of the roles, responsibilities and relationships among Competent Authorities and other national bodies involved in implementing the WFD. The analysis examined the main and supporting authorities responsible for the development of the RBMPs, PoMs, for monitoring and for permitting and licensing activities. It also gathered information on the involvement of the main WFD authorities in other water and environment related directives and policies and their involvement in the management of economic sectors. The role of stakeholders in WFD implementation and recent changes to authorities were also key matters for attention.

A desk review was carried out for each Member State, using the results of the RBMP reviews, as well as further desk research on national authorities and legislation.

2.3 Task 1b. International coordination mechanisms

Task 1b served to provide a first analysis of international cooperation to manage river basins under the WFD. The analysis looked at international river basins and sub-basins that are shared among Member States, as well as those shared with third countries. In many cases, the analysis considered territories smaller than that of the river basin district (RBD), which is the main unit for river basin management under the WFD, as many existing coordination agreements and mechanisms address the smaller units (see Box 2 below).

River basin districts can include one or more neighbouring river basins and cover land, all surface waters and associated groundwater bodies and coastal waters (as per Art. 2(15) of the WFD). The international river basins and sub-basins analysed here are each allocated to international RBDs, identified under Art. 3(1) of the WFD; in some cases, the river basins studied are themselves international RBDs.

Task 1b did not aim to develop a complete register of international river basins in Europe; rather, it sought to compile a large and representative set of international European river basins and sub-basins, in order to analyse international coordination mechanisms in a representative way. The analysis excluded international river basins and sub-basins with very small international shares: for example, 99% of the River Seine basin is located in France and only 1% in Belgium. It did, however, include in aggregate the international river basins shared between Norway and Sweden, even though each basin has most of its territory in only one country; it is, however, managed in an aggregated coordinated way between the basin sharing countries.

Box 2. Transboundary river basins and sub-basins

Task 1b focuses on international river basins. In addition, 30 international sub-basins that are part of these river basins were selected for review where separate governance aspects arise. This was the case, for example, where a specific bilateral or multilateral agreement governs the sub-basin. This was the case, for example, for the Garonne river basin shared between France and Spain: three sub-basins (Nive, Nivelle and Bidasoa) are covered by separate international agreements, in addition to the agreement for the main course of the Garonne River. Another example is the Segre sub-basin, which is shared among Andorra, France and Spain and is covered by an international agreement (*Contrat de rivière du Sègre en Cerdagne*). The Segre is a sub-basin of the Ebro river basin, which is not covered by an international agreement. For the Vistula river basin, international agreements cover three sub-basins: the Bug (Poland, Belarus and Ukraine); and the Poprad and Dunajec (both covering Poland and Slovakia).

In total, 75 international river basins and 30 sub-basins were analysed, covering approximately 2.6 million km² of EU surface area. Of the 75 river basins, 54 (71%) are shared between EU Member States and third countries; these accounted for 76% of the total area under study (see Figure 1 below). The remaining 22 river basins (29%), covering 24% of the area, are shared exclusively among EU Member States.

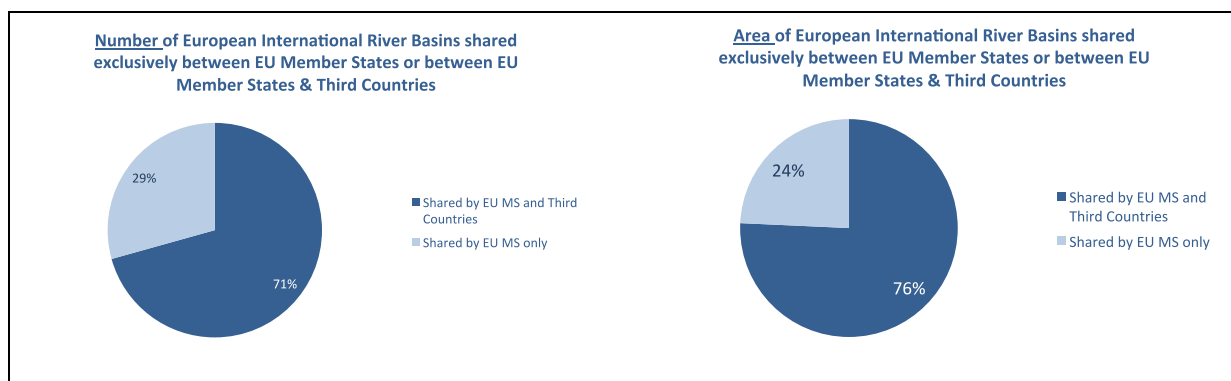


Figure 1: Number (left) and area (right) of the 75 European international river basins - investigated under Task 1b - shared between EU MS or between EU MS and Third Countries.

The analysis prepared 31 fact sheets on the 75 river basins assessed (most of the fact sheets are by country, and thus cover more than one basin). The 30 sub-basins are addressed within the respective fact sheet for the river basin to which they are a tributary. Each fact sheet covered a range of topics:

- Basic information, including area and Member States/third countries covered
- Cooperation framework, including any agreements
- Key areas of cooperation, including international RBMPs
- International coordination successes and failures
- Future of international cooperation
- Key cooperation obstacles

Information for the fact sheets was gathered through desk research, as well as interviews with technical experts and representatives of basin countries and international river basin organisations. The fact sheets were then sent to Member State SCG representatives and to officials of international river basin organisations for review and validation⁸.

2.4 Task 1c: Enforcement, control, inspection and sanction systems

The overall goal of Task 1c was to provide an initial overview, for each Member State, of how enforcement, inspection and sanction regimes related to water policy are designed and implemented. In addition, the task sought to identify information on good/best practices in Member States, together with common problems and areas for improvement.

The following definitions were agreed with DG Environment for this work:

- **Control** refers to the procedures set in law (including in permits) to ensure that permit and other legal requirements are followed. These can be procedures that permit holders must follow – e.g. abstraction metering, pollution monitoring, keeping a registry of water use or

⁸ Comments were received from seven the international river commissions: those of the Danube, Elbe, Ems, Meuse-Maas, Oder, Rhine and Scheldt.

discharges. In addition, authorities can also take certain control procedures, including monitoring as well as inspections.

- **Enforcement** refers to the broad range of activities taken by authorities to ensure that permit and other legal requirements are followed, as well as actions in the case of possible infringements. Enforcement thus includes control procedures as well as sanctions and legal action via courts.
- **Inspections** are on-site visits by authorised government officers to ensure that the conditions in the permits and other legal requirements are respected.
- **Sanctions** are the administrative or criminal measures taken when a private entity is in infringement with the law, including conditions established in permits. Sanctions can be fines and imprisonment but also a range of other remedial and punitive measures, for example suspension of the activity or an order to restore the environment.

To a great extent, this task sought information that is not available from other materials, including the RBMP assessment or sources available on WISE. For some Member States, key data and information were available in reports and other resources available via Internet. For others, however, national officials had to be the main information sources. As a result, information gathering relied strongly on responses from DG Environment officials, SCG members and other national officials.

2.5 Task 1d. Legal nature of RBMPs

The main objective of this task was to review the legal nature of river basin management plans (RBMPs) in terms of several key criteria:

- Firstly, the legal status of the RBMP in terms of the rank of the RBMP within the national hierarchical order of policy and legal acts, considering its denomination, the adopting authority and the procedure for its adoption. These aspects aim at identifying the legal status of the plan in relation to other instruments, primarily in hierarchical terms.
- Secondly, the legal ‘effect’ of the RBMP in relation to other acts such as individual decisions on permit or spatial planning instruments. The key issue is whether or not the plan is binding on these other decisions and instruments.
- Thirdly, the extent and the allocation of financial resources over time for supporting the implementation of selected measures: this was part of the analysis on the legal ‘effect’ of the RBMP, and involved a review of the mechanisms in place to secure the financial resources.

The analysis focused on national legal frameworks, in particular for the first two points above; each Member State fact sheet was prepared by a national legal expert. Legal and administrative frameworks across the EU are varied and complex; the Member State fact sheets presented an agreed set of targeted questions to ensure comparability. Information for the third point was drawn, where available, from the separate analysis of RBMPs.

3 Overview of results

This section synthesises the analysis of the four sub-tasks across the common criteria for assessing water governance identified in the introduction. For further information on these topics, please see the separate sub-task reports in Parts II to V of this overall report.

3.1 Integration: Geographical scale

According to a recent OECD report on water governance, ‘key obstacles to improve water management are institutional fragmentation and badly managed multi-level governance [...]’. Consequently, the authors of the report argue that

‘adopting a “systemic” approach to water policy requires overcoming critical multi-level governance challenges. This implies managing the explicit or implicit sharing of policy-making authority, responsibility, development and implementation at different administrative and territorial levels [...]’.⁹

The Water Framework Directive sets out a “systemic” approach’ to water governance based on river basins and river basin districts (which bring together one or more neighbouring river basins). The Directive thus calls for an approach to planning along natural geographical boundaries – which, in order to succeed, needs to overcome the ‘critical multi-level governance challenges’ described in the OECD report. More specifically, in many Member States environmental and economic planning has followed ‘traditional’ administrative boundaries – those for national, regional and local governments. Establishing a catchment approach for water governance is thus a key challenge in terms of implementing the Directive.¹⁰

This section provides an overview of the authorities involved in water governance across the EU. First, it looks at the structures for implementation of the Water Framework Directive in Member States in terms of the distribution of competences across different national levels of governance in general, and in particular with respect to the overall authority to lead implementation, monitoring, and permitting (section 3.1.1). The section then looks in more detail at the structures for monitoring and permitting (section 3.1.2), those for coordination (section 3.1.3) and enforcement authorities (section 3.1.4). Finally, many river basins cross Member State and third country borders. Coordination in these international river basins is essential in order to achieve integration at the geographical scale: this is covered in section 3.1.5.

A key issue at national level is that Member States have a broad range of administrative arrangements. The distinction between federal and unitary approaches is nonetheless a vital one that affects governance across nearly all policy areas, including water management. The box below provides a brief introduction to this issue.

⁹ OECD, Water Governance in OECD Countries: A Multi-Level Approach, OECD studies on Water, 2011, pp. 17-18.

¹⁰ See, for example: EEA, Territorial cohesion and water management in Europe: the spatial perspective, Technical Report No. 4/2012

Box 3. Federal and unitary structures

Three Member States have a formal *federal* structure: Austria, Belgium and Germany. Three other Member States have a *quasi-federal* structure: Italy, Spain and the United Kingdom are in this category. In these countries, powers are *decentralised* to autonomous regions, including key responsibilities for water management.

It should be noted, however, that Member States have a range of structures and approaches for decentralisation and regional management. Several countries, including Poland and the Czech Republic have autonomous regions, though these do not appear to have the range of powers of those in the three Member States classified as quasi-federal. Other countries as well have a role for regional authorities: this is also the case for the counties in Sweden. It is useful for the analysis to distinguish authorities under regional governments from those cases, such as Finland, where authorities that belong to the national government at regional level have an important role. The purpose here is not to analyse in depth the different structures in Member States, but rather to point out the importance of this factor for governance in the water sector.

3.1.1 Main authorities

The authorities for the implementation of the WFD, as indicated by the RBMPs, vary significantly across the 27 Member States. Table 2 below presents an overview of the both main and supporting authorities (supporting authorities include, for example, those for monitoring and enforcement, where these are separate from main authorities, as well as authorities in other areas). The full list of authorities can be found in Annex I to Part II of this report.

The table reveals some key patterns in terms of geographical level:

- **National authorities:** in all but two Member States, there is a main authority – a ministry or delegated agency co-ordinating the MS approach to the implementation of the WFD – at national level.
- In 17 Member States, the main authority or authorities are only found at national level. In four of these, however, more than one main authority is involved at national level: in the Czech Republic and Finland, two ministries appear to share this role for WFD implementation; in Malta, two authorities share this role; and in Romania, the ministry responsible for environment and an agency focusing on water management are identified as the two main authorities.
- **Regional units of national authorities** are found in at least 11 Member States. In Finland, for example, regional offices under the national government play an important role in implementing the WFD.
- **Regions with some level of autonomy** play a role in 13 Member States, including all those identified with a federal and quasi-federal structure, and authorities at this level have a leading role in 7 Member States. In Germany and the UK, the regional level has a notably strong role, as a main authority was not identified at national level. (In Belgium, the Federal level leads only for coastal waters, though it has a coordinating role across the regions as well).

- **River basin authorities** have a role in 9 Member States, and appear to have a leading role only in three: France, Italy and Sweden (in Bulgaria and Romania, however, river basin authorities are part of leading authorities at national level).
- **Local authorities** play a role in at least 9 Member States, and in one, Ireland, this appears to be a leading role.

Table 2: Main and supporting authorities by geographical level (main authorities are highlighted in yellow)

MS	Federal States	National*	Regional units of national administration	Regions	RBD/catchment authorities	Local authorities
AT	F	✓		✓		
BE	F	✓		✓		
BG		✓	✓		✓	✓
CY		✓				
CZ		✓	✓	✓	✓	
DE	F	✓		✓		
DK		✓				✓
EE		✓	✓			✓
EL		✓	✓	✓		
ES	Q	✓		✓	✓	
FI		✓	✓			✓
FR		✓	✓		✓	
HU		✓	✓		✓	✓
IE		✓				✓
IT	Q	✓		✓	✓	
LT		✓	✓			
LU		✓				
LV		✓	✓			✓
MT		✓				
NL		✓		✓	✓	
PL		✓		✓		
PT		✓		✓**		
RO		✓	✓		✓	✓
SE		✓		✓	✓	✓
SI		✓				
SK		✓	✓	✓		
UK	Q			✓		

Notes:

F: Federal system

Q: Quasi-federal system

Main authorities are highlighted in yellow

* The national authority is in most cases the ministry responsible for environment.

** Autonomous regions of Azores and Madeira only

In sum, across nearly all Member States, WFD implementation involves a range of authorities across different administrative levels. This is seen in federal and quasi-federal Member States, as well as others. Exceptions are small Member States, such as Cyprus, where authorities are located only at national level; and the United Kingdom, where three regional units (England and Wales, Northern Ireland and Scotland) have the main responsibility. In 8 Member States, it appears that main

implementation authorities are found at more than one administrative level, and thus communication and coordination across levels is particularly important.

The analysis shows that river basin authorities are only found in one-third of Member States. This is surprising, as the WFD calls for a river basin approach for water governance. In Member States where national authorities take the lead, these may follow a river basin or catchment approach.

In at least five Member States, responsibility for water governance is divided by water categories. In Sweden as in Belgium, there is a division between coastal waters and freshwaters; moreover in Sweden, responsibility for groundwater is separate from that for surface freshwater bodies, while national agencies are responsible for coastal waters and groundwater. The other three cases are Lithuania, Malta and Poland. However, RBD and catchment-focused work can be carried out even where dedicated institutions are not set up at these levels: this is the case, for example, with both RBD level planning in the UK as well as the new Catchment-Based Approach, an initiative in England for implementation.

In sum, in all but four Member States, competence for WFD implementation is shared among authorities at up to four geographical levels. More specifically, in almost half of the Member States three different geographical levels are involved and in more than a third the main authority is shared by two (in one case: three) levels. In addition, in five Member States competences also differ across different water categories. This allocation of competence across different levels of governance underlines a need for coordination mechanisms, which are described in section 3.1.3.

3.1.2 Monitoring and permitting authorities

Authorities carrying out monitoring

The Water Framework Directive calls on Member States to establish monitoring programmes for surface water status, groundwater status and protected areas (Art. 8). These are to include surveillance and operational monitoring programmes, as well as investigative monitoring as needed (Annex V of the WFD). Monitoring systems can be important tools for enforcement; they are also vital in understanding whether WFD objectives are being achieved.

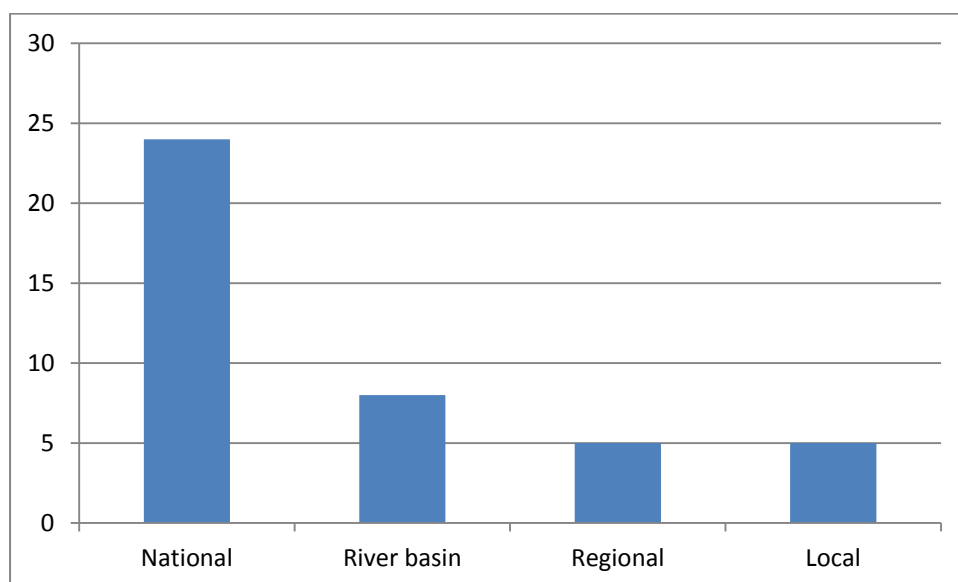
In nearly all Member States, national authorities have a role in monitoring (see Figure 2 below; these are included in the analysis of section 3.1.1 above). Regional and local authorities have a role in fewer countries. Only in five Member states are river basin authorities involved in monitoring, and in one (France) do these authorities have a role in permitting. In twelve Member States, the responsibility for monitoring is split between different levels of authorities, such as national authorities and local authorities. The highest number of different levels of authority responsible for monitoring is three, although most Member States split the responsibility between two levels.

The levels of authorities reported as having responsibility for monitoring are:

- National authorities: Most MS have a national authority for monitoring (or aspects of monitoring).

- Regional authorities: the following MS have a regional responsibility (possibly in co-ordination with other centralised/local or river basin authorities) for monitoring: DE, ES, FR, IT, LT, NL, RO, SE, UK.
- Local authorities: The following MS have local authorities (possibly in co-ordination with other centralised/regional or river basin authorities) for monitoring: FI (operational), IE (investigative), NL, SE, UK (investigative).
- River basin authorities: the following MS implement monitoring through river basin authorities (possibly with co-ordination with other centralised/regional/local authorities): BG, CZ, FR, IT, RO.

Figure 2. Involvement of authorities at different geographical levels in monitoring, by number of Member States



In 11 Member States, monitoring is split among authorities by water category: this occurs for transitional waters (3 Member States), coastal waters (7) and groundwater (4) – see Table 3 below.

Table 3: MS where additional authorities are involved in monitoring specific water categories

Water Category	MS
Transitional	IE, LV, PT,
Coastal	BE, FR, IE, LV, MT, PT, RO
Groundwater	HU, LT, NL, SE

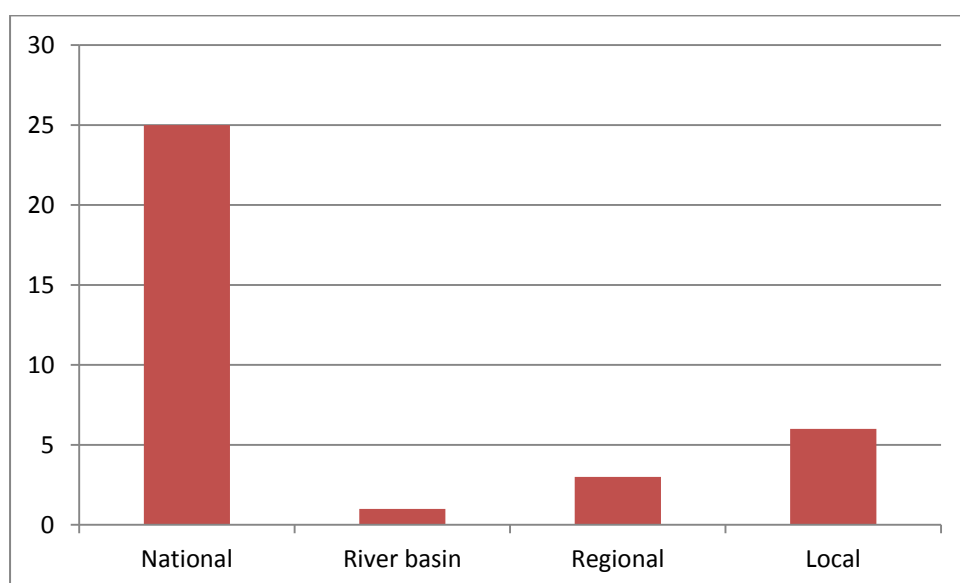
Authorities for Permitting

Permits, concessions and authorisations for water use are key tools in water governance. The Water Framework Directive, in its Art. 11(3) on basic measures, refers to controls and authorisations for a

range of activities, including: water abstraction; artificial recharge of groundwater bodies; point source discharges; other adverse impacts on water bodies, including hydromorphological conditions; direct discharges to groundwater; and measures to prevent pollution losses from technical installations, including accidents.

The review identified authorities involved in permitting: in 25 Member States, these authorities are found at national level. Only in one Member State are they seen at river basin level; more common are regional-level authorities, seen in three Member States, and local authorities, found in six MS. These authorities are included in those assessed in section 3.1.1.

Figure 3. Involvement of authorities at different geographical levels in permitting, by number of Member States



In a few Member States, permitting is divided among authorities at different levels. This is the case, for example in Finland: permits for small point source discharges are granted by municipalities; those above a threshold are granted by regional administrative agencies.

3.1.3 Enforcement authorities

The review of authorities involved in enforcement – in particular of the requirements set out in the water permits – introduces a further level of complexity in terms of the authorities involved in water governance. An overview is provided in Table 4 below. While these authorities were included in the analysis in Table 1 on all water authorities, Table 4 provides greater detail, in particular showing the roles of national agencies (such as environmental agencies and water agencies), environmental inspectorates and police forces.

Table 4: Overview of enforcement authorities for water permits across Member States

MS	Federal State	National environ. authority/ agency	Environ. Inspectorates (incl. regional offices)	Other regional offices of national gov.	Regional authorities*	RBD/ catchment authorities	Local authorities	Police forces
AT	F	✓ ^a			✓		✓	✓
BE	F				✓		✓	✓
BG			✓			✓		
CY		✓						✓
CZ			✓		✓		✓	
DE	F				✓		✓	
DK		✓					✓	✓ ^b
EE			✓					
EL		✓			✓			✓ ^b
ES	Q	✓			✓	✓ ^h		✓ ^f
FI				✓ ^c			✓	
FR		✓ ^d	✓ ^d	✓ ^d			✓	✓
HU			✓ ^e				✓	
IE		✓					✓	✓
IT	Q				✓			✓ ^f
LT		✓						
LU		✓						
LV		✓						
MT		✓						
NL			✓		✓	✓ ^g	✓	
PO			✓		✓			
PT			✓		✓ ⁱ			✓
RO		✓	✓			✓	✓	✓
SE					✓ ^j		✓	
SI			✓					
SK		✓	✓		✓		✓	
UK	Q				✓		✓	

Notes:

F: Federal system

Q: Quasi-federal system

*Regional offices of national bodies, other than inspectorates, are designated in parentheses: (✓).

a. The Lebensministerium carried out enforcement for large IPPC installations and also has overall enforcement responsibilities

b. Police may be called in to assist environmental inspectors: not a main authority.

c. Regional Centres for Economic Development, Transport and the Environment: regional offices of the national administration

d. Enforcement in France involves regional and departmental offices responsible for environment and national agencies and their regional and/or department offices.

e. Regional offices of the environmental inspectorate are organised on a catchment basis

f. In particular, police at national level.

g. Water boards

h. RBDs that cross Spanish regions (i.e. Autonomous Communities) are of national responsibility; RBDs within a single region are of regional responsibility.

i. The autonomous regions of the Azores and Madeira.

j. County administrations

Water authorities play an important role in many Member States; in addition, environmental inspectorates and police forces work on enforcement in many countries. While the structures vary significantly across Member States, in very few – essentially only Estonia, Latvia and Lithuania – is there a single authority at a single geographical level for enforcement. In many Member States, more than one national authority has a role (this is the case in Luxembourg and Malta, for example); moreover, (mainly national) police forces and local authorities frequently play a role.

In the three Member States with a formal *federal structure* (Austria, Belgium and Germany), national-level authorities have little or no role in enforcement related to water issues. Most enforcement is carried out by authorities at regional and lower levels. Three Member States have a quasi-federal structure: Italy, Spain and the UK are in this category: in all three, the regional level has an important role. In Italy and Spain, national police also have a role in enforcement. In the UK, however, only regional bodies are involved: the environmental agencies for England and Wales, Northern Ireland and Scotland carry out enforcement.

At least 10 Member States have *environmental inspectorates*¹¹ that lead enforcement work: this approach is common in the new Member States, and eight of the 10 Central European EU12 MS have such authorities. In all these cases, the inspectorates are at national level; in many of these countries, the national inspectorates have regional and sometimes local offices. In other Member States, such as Luxembourg, *national environmental agencies* lead enforcement.

It appears that few countries have organised enforcement activities along the river basin level: this is the case in only three Member States: Bulgaria, Romania and Spain.

Further information on enforcement is found in the following sections, and in particular in section 3.6.

3.1.4 Coordination mechanisms within Member States

The previous sections have shown that in most Member States, several authorities are involved in the implementation of the Water Framework Directive, including enforcement. Some MS have a complex matrix of authorities involved in the main areas of implementation. These results highlight the need for coordination mechanisms.

Member States reported a wide range of co-ordination mechanisms employed to ensure co-ordination among authorities. These include:

- Formal legal obligations, i.e. where relationships among authorities are defined by law (seen, for example, in Austria, Bulgaria, Hungary and Sweden);
- Inter-ministerial committees (reported in Cyprus, Malta, Greece and the Czech Republic);
- Co-ordination undertaken by the main WFD authority, as is the case in France and Romania; and,
- Steering groups and advisory bodies.

¹¹ Or bodies with this function by a different name, such as the Regional Environmental Protection Departments under the Ministry of Environment in Lithuania

Advisory/coordination bodies have been established in at least five Member States to assist the main WFD authority with the development of the RBMPs and the implementation of the WFD. These include: Belgium's Federal Co-ordination Committee (which helps to coordinate across the countries federal regions); Ireland's National Co-ordination Group; and the UK Technical Advisory Group. In Bulgaria, the River Basin Councils also act as the forum for stakeholder consultation and participation.

In a few cases, coordination mechanisms extend to authorities for other sectors (this is addressed further in section 3.2.1).

Coordination for monitoring and enforcement

Information was also gathered on coordination in the areas of monitoring and enforcement.

Several Member States have multiple authorities responsible for monitoring, and in several cases, specific co-ordination mechanisms have been set up for this sector. These mechanisms are summarised in Table 5.

Table 5: approaches to coordination between authorities responsible for WFD monitoring.

Coordination approach	Member State
Coordination organised by one central authority.	AT, DK, FI, IE, LT, LV, NL, PT
Coordination organised by more than one central authority.	HU
RBD authorities coordinate.	BG, SE

Member States have also put in place mechanisms for coordination among enforcement authorities, and between enforcement and water management authorities. Many Member States have formal approaches, such as meetings among different authorities. In Bulgaria and Romania, joint inspections are carried out involving the main enforcement authorities. At the same time, informal mechanisms for cooperation are also important. While some Member States may rely more on one than another, the two are not exclusive, as strong coordination is expected to involve both approaches.

3.1.5 Coordination in international river basins

The Water Framework Directive calls for coordination in international river basins that cross boundaries, including those between EU Member States and third countries. Under Art. 3(1), Member States are required to identify national and international river basin districts (RBDs). The WFD also calls for the preparation of a single RBMP in international RBDs within the EU; if an international RBMP is not prepared, then Member States shall produce national RBMPs for their parts of an international district in such a way that the objectives of the WFD are achieved.

Categories of international coordination

In order to assess coordination mechanisms, a total of 75 international river basins and sub-basins, were identified and assessed (see section 2.3 above for further details on the methodology; as noted there, many of the sub-basins are part of the river basins assessed). The analysis reviewed these international basins and sub-basins in terms of four categories of international coordination and cooperation (see Table 6 below).

Although only a small number (11%) of international river basins and sub-basins are part of the first category, when it comes to catchment area size, more than 45% of the international river basin/sub-basin area on EU territory falls into Category 1 (territories of third countries are not included). Notably, Category 1 comprises Europe's two largest international river basins, the Danube and the Rhine. In addition, the Elbe, Meuse, Odra, Scheldt and Ems are included as well as the international basins between Ireland the United Kingdom.¹²

Table 6: Four categories of coordination and cooperation in the international river basins and sub-basins studied

Forms of coordination and cooperation		Number of international river basins	Number of international sub-basins	River basin area (EU only) (million km ²)
1	International river basins/sub-basins with formal international agreement & international coordinating body & international WFD RBMP	10	2	1.17
2	International river basin/sub-basins with formal international agreement & international coordinating body BUT no international WFD RBMP	47	24	1.00
3	International river basin/sub-basins with formal international agreement BUT no international coordinating body & no international WFD RBMP	15	4	0.32
4	International river basin/sub-basins with no formal international agreement & no international coordinating body & no international WFD RBMP	3	0	0.05

All Category 1 basins:

- Cooperate under a formal international agreement
- Have an international coordination body (e.g. a commission or committee, either with or without a secretariat and staff) and
- Developed an international RBMP.

In total, 10 international RBMPs were prepared for river basins and sub-basins in Category 1 (one IRBMP covered two sub-basins studied between Ireland and the United Kingdom). A much higher

¹² A high level strategic document was adopted by both countries (UK/IE) on their shared river basins but not officially reported to the EC.

number of river basins and sub-basins are found in Category 2: these have a formal agreement and some form of coordinating body, but not an international RBMP. These 47 river basins (and 24 sub-basins) account for almost 40% of the EU river basin area studied.

Over 20% of the river basins and sub-basins studied fall into the remaining two categories, without a coordinating body or RBMP. However, these cover a much smaller surface area: Categories 3 and 4 together cover less than 15% of the EU area studied. Many of the Category 3 basins (formal agreement/no coordinating body/no RBMP) are found in the new Member States, and involve river basins shared with eastern neighbouring countries. Category 4 basins involve southern European Member States (Bulgaria, Italy and Greece), as well as their neighbouring third countries.

Table 7 presents the level for cooperation in terms of international river basin area (km²) for each category, by Member State and by third country. These results are also shown in Map 1 (see below) across the European River Basin Districts.

Meetings and joint activities

Data on meetings and on joint activities provide further indicators of international coordination. In 66 of the 105 international river and sub-basins, expert groups bring together participants from Member States and third countries; however, only in 54 are these reported to meet on a regular basis. In addition, over half of the river and sub-basins have regular plenary meetings (see Figure 4). (This analysis refers to all basins and sub-basins studied, as some sub-basins had their own expert groups.)

Figure 4: Expert groups, ad-hoc/task groups and regular plenary meetings (data for all 105 international river basins and sub-basins studied under Task 1b)

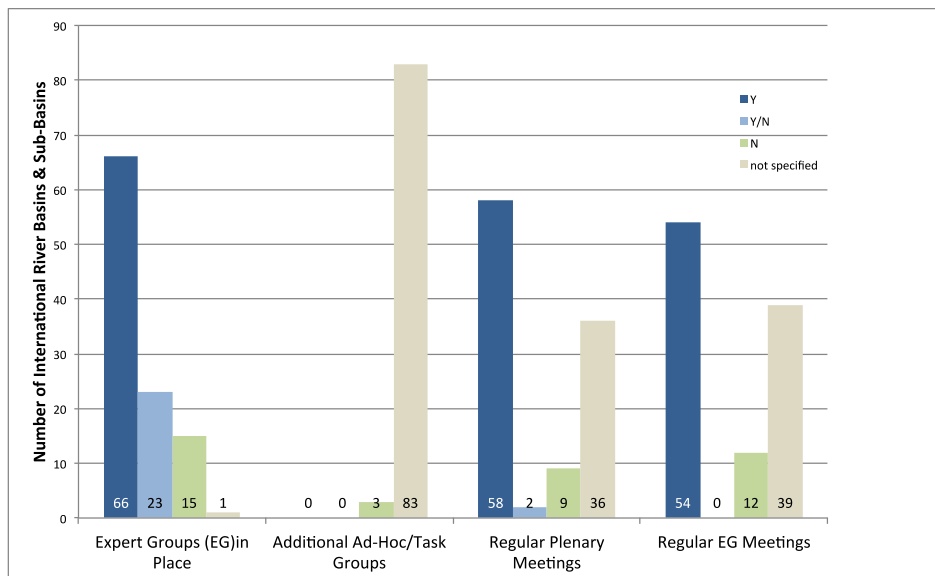
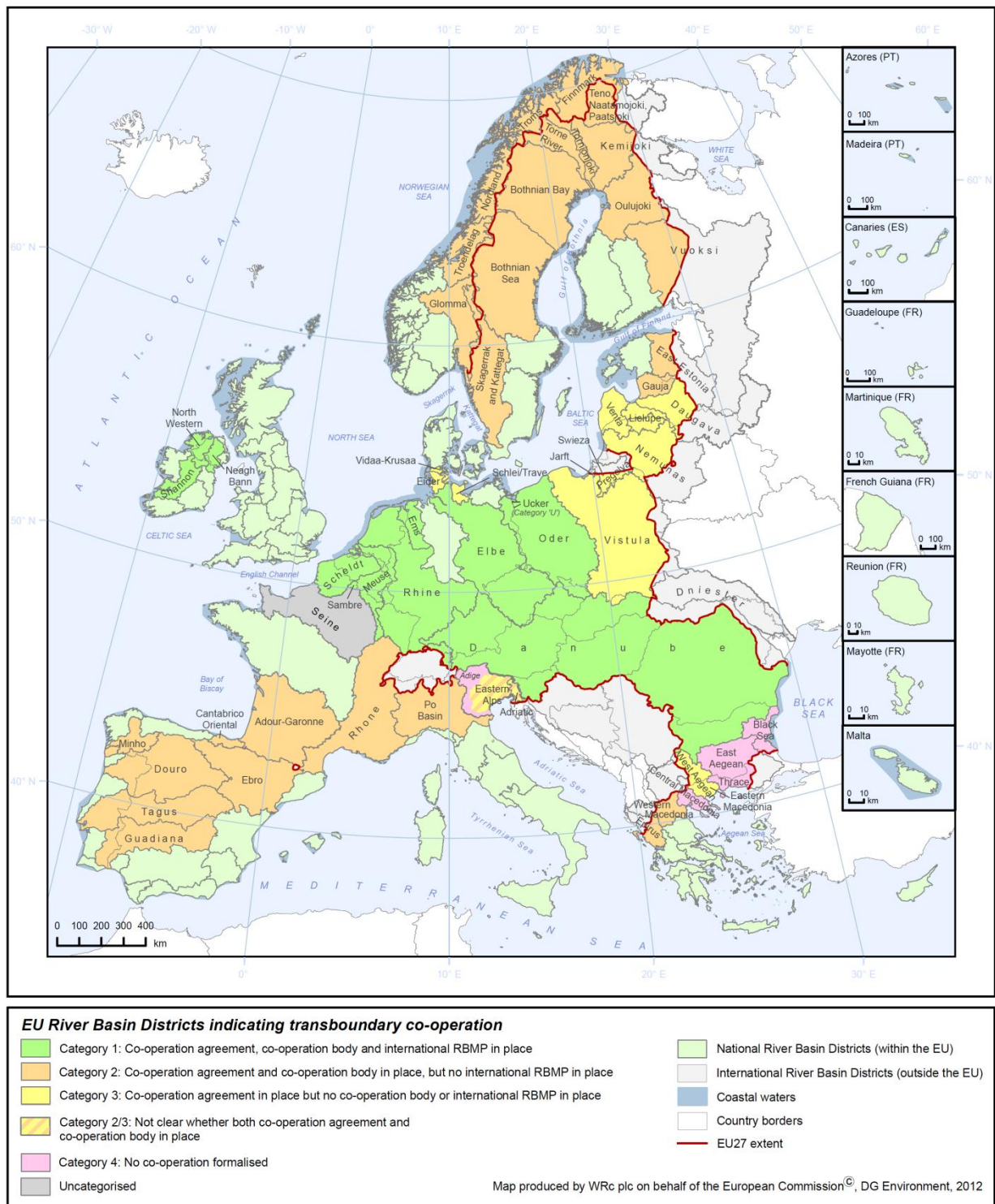


Table 7: International river basins and sub-basins: total area by coordination category for EU Member States and third countries (km²)

	Coordination and Cooperation Category				
	1	2	3	4	Total
EU Member States					
AT	83,714				83,714
BE	30,568				30,568
BG	47,235		14,542	35,230	97,007
CZ	78,899				78,899
DE	290,178		999		291,177
DE/NL	482				482
DK			1,106		1,106
EE		18,335			18,335
EL		2,154	10,124	6,552	18,830
ES		293,726			293,726
FI		165,951			165,951
FR	51,235	169,746			220,981
HU	93,030				93,030
IE	27,359				27,359
IT	625	71,286		11,970	83,881
LT			66,129		66,129
LU	2,595				2,595
LV		16,151	42,434		58,585
NL	45,620				45,620
PL	107,838	232	178,728		286,798
PT		47,902			47,902
RO	238,506				238,506
SE		216,620			216,620
SI	16,422	2,267			18,689
SK	47,084		1,957		49,041
UK	11,031				11,031
Total	1,172,582	1,004,369	316,019	53,752	2,546,722
Third Countries					
AD		466			466
AL	126	18,538			18,664
BA	36,636				36,636
BY, RU			99,827		45,943
CH	29,739	11,526		130	41,395
CZ, UA, BY			23,768		23,768
HR	34,965				34,965
LI	160				160
MD	12,834	19,400			32,234
ME	7,300				7,300
MK	109	3,840		20,535	24,484
MK, RS			0		0
NO		104,311			104,311
RS	81,335			1	81,336
RS, ME		4,360			4,360
RU		102,920	8,196		111,116
TR			758	14,650	15,408
UA	30,571	52,700			83,271
Total	233,615	318,061	132,549	35,316	719,541

Note: This analysis refers exclusively to the 75 international river basins (most of the 30 sub-basins studied are part of these 75 basins).

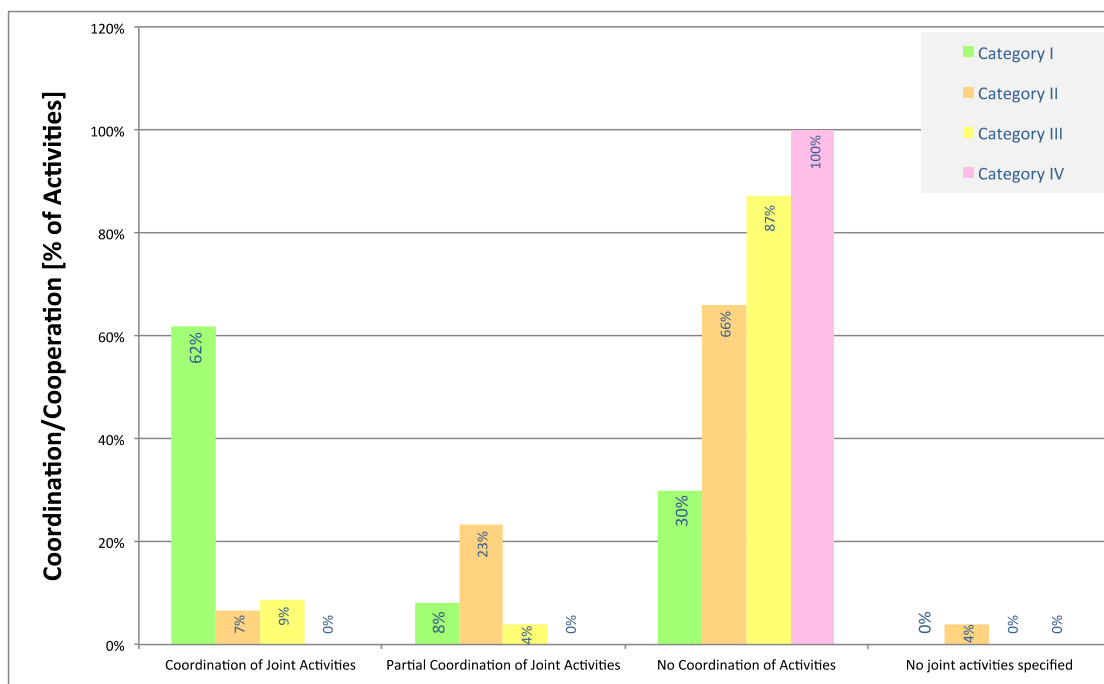


Map 1: Overview of EU River Basin Districts indicating level of international cooperation and coordination (based on the four Task 1b cooperation categories)

A range of *joint activities* were identified in the international river basins and sub-basins: the preparation of shared visions; the identification of significant water management issues; monitoring programmes and activities; shared databases; public participation activities; and financial cooperation. These joint activities are coordinated in over half of the Category I basins and sub-basins, and in a further 8% they are partially coordinated. In contrast, much less coordination is seen in the three other categories (see Figure 5).

The most common joint activities were: the identification of joint significant water management issues, the development of common visions and objectives and monitoring programmes. In each of these three categories, joint activities were fully or partially coordinated in over 45 river or sub-basins. In contrast, only 12 basins had cooperation on the development of joint PoMs (9 fully, and 3 partially).

Figure 5: Coordination of joint activities in the international river basins (results for the 75 basins)



3.1.6 Conclusions on integration across geographical scale

At international level, coordination and cooperation appears strong in Europe's large shared river basins, including the Danube and the Rhine: these have permanent institutional structures for coordination. In some bilateral river basins as well, such as those between Ireland and the United Kingdom, cooperation and coordination appears strong. However, they are less developed in other international river basins, including river basins shared with European neighbours in Eastern Europe and southern Europe.

At national level, several water management authorities across different administrative levels are found in many Member States. These authorities are found at RBD or catchment levels in only nine

Member States. Other Member States have carried out RBD-level management at national level: this is the case for Austria and Hungary, which are both almost entirely within the Danube river basin; and for smaller Member States such as Cyprus and Malta. Nonetheless, the results suggest that RBD and catchment level approaches could be further developed.

The overview brings out the important role of authorities at regional level: these are found in 13 Member States (not including regional offices of national authorities), more than have RBD-level authorities.

In a few Member States, authorities at different levels are involved in specific water governance activities, such as monitoring, permitting and enforcement.

These results highlight the need for coordination to counter the risk of fragmentation among authorities. The information gathered shows that Member States have employed a broad range of internal and international mechanisms for coordination. It has not been possible to assess the functioning and effectiveness of these mechanisms, however: this appears to be an important issue for further review.

3.2 Policy integration

As a framework directive, the WFD heavily relies on other water and environmental policy instruments, but also on measures taken in the context of other policy areas and economic sectors to achieve its objectives. Its aims and requirements therefore need to be integrated into these instruments and sectors. With regard to integration with other water and environmental policy instruments, the Floods and Marine Strategy Framework Directives and the Industrial Emissions Directive are cases in point. For example, integration of WFD objectives into policies to reduce flood risks should ensure that measures to contain increasing flooding as a result of climate change, soil sealing etc. also support, or at least do not undermine, the objectives of the WFD.

Similarly, other policy areas and economic sectors such as agriculture, industry, fisheries, energy, transport, and regional and cohesion policy and spatial planning, have a direct impact on Europe's waters. This is emphasised in the preamble to the Water Framework Directive:

Further integration of protection and sustainable management of water into other Community policy areas such as energy, transport, agriculture, fisheries, regional policy and tourism is necessary. (Recital 16)

Agriculture, for example, can be an important source of diffuse pollution resulting from ill timed or inappropriate farming operations, such as excessive use of inorganic fertiliser. In many Member States, water abstraction for irrigation is also an important pressure on water bodies. In the energy sector, measures to promote renewable energy such as biofuels and hydropower can have significant impacts on the objectives of the WFD as a result of changes in agricultural practices and modifications of water bodies. Integration between river basin planning and land use and spatial planning is also vital, as the latter shape economic and urban development on a local and regional basis, and thus directly influence the pressures on river basins as will be discussed in more detail below.

Effective integration is thus a vital element of water governance. Indeed, the OECD warns of the risks of sectoral fragmentation, where responsibilities across sectors are fragmented and horizontal co-ordination across policy fields is weak.

3.2.1 Involvement of the WFD authorities in other policies and sectors

This analysis considers two levels: first links with other water and environmental policies, and then with economic sectors.

Involvement in water and environmental policies

The design of WFD took account of prior water directives and other environmental legislation. These are specifically cited in the WFD: for example, Annex VI on the Programmes of Measures lists a range of 11 directives, including those for water.

More recent directives for water management – the Floods Directive¹³ and the Marine Strategy Framework Directive¹⁴ – follow the conditions and achievements of the WFD. For example, the Floods Directive employs the WFD's river basin approach. The Marine Strategy Framework Directive calls for the achievement of good environmental status for Europe's seas, similar to the WFD's objective of good status for inland and coastal waters.

For 20 or more Member States, at least one of the main authorities for the WFD has an involvement in the urban waste water treatment (UWWT) Directive, the Floods Directive and the Marine Directive (see Table 8 below): moreover, in most of these Member States the WFD authority is also the main authority or a leading authority for these three directives.

Table 8: Involvement of the WFD authorities in other water and environmental policies (no. of Member States)

Role of WFD CAs in other policies	Water directives						Other Env. Policies and Directives	
	UWWT	Floods	Marine	Bathing Waters	Drinking Water	Nitrates	Habitats	Climate
Main CA/lead	22	20	21	10	7	8	16	14
Shared involvement	2	0	3	5	6	9	4	8
Total	24	20	21	15	13	17	20	22

¹³ Directive 2007/60/EC of the European Parliament and of the Council of 23 October 2007 on the assessment and management of flood risks

¹⁴ Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy (Marine Strategy Framework Directive)

Involvement of the WFD authorities is less common for the directives on bathing waters or drinking waters: this is seen in 15 and 13 Member States, respectively. In many Member States, ministries responsible for health have a lead responsibility in these areas. Only in 17 Member States are the WFD authorities involved in the Nitrates Directive (where ministries responsible for agriculture often play a role). Moreover, even across these three directives – bathing waters, drinking water and nitrates – the WFD authorities when involved often have a shared rather than a leading involvement.

Fragmentation in responsibilities can be an obstacle to effective implementation, unless there are strong coordination mechanisms. These results points to a potential need for strengthened coordination across these directives, which are cited in the WFD. Notably, measures under these directives should be included in the Programmes of Measures, as they influence water quality. Moreover, under the Nitrates Directive include the designation of nitrate-sensitive areas as well as other key actions that will influence water quality.

In a high number of Member States, however, the WFD authorities also are involved in two areas of environmental policy that are closely linked to water issues: habitats and climate change. The Birds and Habitats Directives are also cited in the WFD, including in terms of measures to be included in PoMs. Moreover, the Commission's guidance documents for the Habitats Directive cite a range of water issues to be considered, for example in the assessment of plans and projects that may affect Natura 2000 sites.¹⁵

Climate change is a crucial issue for water management. The Member State Water Directors adopted a guidance document on climate adaptation in water management in 2009,¹⁶ and this is a key topic in the Blueprint for safeguarding Europe's water resources and the broader work on climate change adaptation.¹⁷

Involvement in sectoral policies

In less than half of Member States, the WFD competent authorities are involved in key economic sectors: agriculture, energy, transport, industry and mining (see Table 9 below). This is most common for industry, in particular IPPC facilities.

For agriculture, in a few Member States, involvement takes the form of a ministry with competence for both sectoral and water policies: this is the case in Austria, Portugal and Slovenia, where a single national ministry is in charge of agriculture and environment.

¹⁵ European Commission, Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC, 2001

¹⁶ European Commission, River basin management in a changing climate, Guidance document No. 24, 2009

¹⁷ European Commission, A Blueprint to Safeguard Europe's Water Resources, November 2012. Available at: http://ec.europa.eu/environment/water/blueprint/index_en.htm

Table 9: Involvement of the WFD competent authorities in key economic sectors (no. of Member States)

Role of WFD CAs in other policies	Key economic sectors					
	Agriculture	Energy	Transport	Industry (IPPC)	Industry (non-IPPC)	Mining
Main/lead authority	6	2	2	7	4	3
Shared involvement	2	3	2	6	4	4
Total	8	5	4	13	8	7

The mechanisms for shared involvement can vary greatly. Table 10 below provides an overview of the coordination mechanisms identified.

Table 10: Involvement of the WFD competent authorities in key economic sectors (no. of Member States)

Coordination approach	MS
Inter-ministerial council.	AT, CY, EL, MT
Relationships between authorities defined by law	AT
Central (federal state) authority coordination committees.	BE, DE
Other authorities consulted during RBMP/PoM preparation.	BG, SI, SK, UK
Cooperation between central authorities at inter-ministerial level.	CZ
Coordination between federal and federal-state level authorities via a working group on water issues	DE
The WFD competent authority has involvement in all /many of the relevant sectors identified in this question.	DK, HU, NL
Central water management commission / water board.	EE, EL, PL
Central steering group / coordination group involving multiple central authorities (ministries)	IE, FR, RO, SK
Usual inter-ministerial working relations.	EE, LT
Working groups / round tables / liaison panels.	FR, HU, LU, UK
Institutional committees of local (RBD) Authorities include many sectoral authorities.	IT
Coordination between sectors via involvement in the permitting process	IT, UK
Bilateral meetings	LU
WFD competent authority provides a statement on new policies / frameworks.	LV
All authorities involved in other sectors are also involved in WFD implementation	MT
National Water Plan set up in agreement with all ministries	NL
Coordination at a technical level	RO
No response / no information	ES, FI, PT, SE

3.2.2 Legal effect of RBMPs

The legal status of river basin management plans is a key element for their effect on other policy areas, including their influence on spatial and land use plans.

In the majority of the Member States, the RBMP/PoM is approved by the Government or the Council of Ministers (see Table 11 below). In such cases, the RBMP/PoM has quite a high status as it would, as a rule, impose upon the ministries and other governmental agencies, as well as administrative

authorities. In a few Member States, the RBMP/PoM are approved by the Ministry of Environment (in the case of Germany, Länder (Federal States) Ministries of Environment). It would then have a legal force at least upon the administration in charge of environment, which is typically responsible for granting permits.

Table 11: Level of approval of the RBMPs, by Member State

Administrative level	No. of MS
Parliament	1
Government/Council of ministers	16
Ministry of Environment	6
Decentralised administration (including RBD authorities)	4

It should be noted that the notion of a 'binding' document is not always clear. The analysis of the legal status and effect of RBMP and PoM in the Member States show very different situations, linked to the variety of legal traditions and approaches and which do not allow drawing clear-cut conclusions. Besides, the legal value of the RBMP and PoM is one element amongst many others. For example, the setting of operational administrative arrangements to ensure coordination between the relevant authorities is also essential. Table 12 below presents a broad overview of the type of the legal effect.

Another element should also be kept in mind, which has not been considered in this review but has also an impact on the legal force of the RBMPs and PoMs. It relates to the degree of details and clarity of the measures provided for in the plans and programmes. In other words, in order to have a 'binding' value, the text should set some obligations or objectives which are expressed in a sufficiently precise fashion to be implemented. Some parts of the RBMP would typically be more of a descriptive, informative nature e.g. the summary of significant pressures and impact of human activity on the status of surface water and groundwater, while other parts such as the environmental objectives themselves are expected to have a legal force. This is recognised by some countries where the RBMP may not be binding as a whole but some parts only.

Table 12: Types of legal effect

Type of legal effect	Comments	No. of Member States
Administrative decisions related to water should conform to or be compatible with the RBMP	The obligation implies that the administrative decisions cannot contradict the RBMP.	9
Administrative decisions related to water should 'take into account' the RBMP	This obligation is rather vague. It has been interpreted in some countries as the obligation not to contradict the RBMP without clear justification.	10
There is no specific provision on status. The RBMP is rather considered as a general planning document with limited legal effect	In such cases, it is mainly left to the approach that will be adopted in practice by the Competent Authorities	8

3.2.3 Effect on spatial and land-use plans

The relationship between river basin planning and land use and spatial planning has been difficult, as a recent EEA study underlines. The two areas often involve different authorities. Moreover, they usually cover areas that only in part overlap, as river basin planning follows natural geographical boundaries while land use and spatial planning is usually carried out along administrative boundaries. Moreover, the two systems typically have different timescales.¹⁸

In at least 21 Member States, the RBMPs have some effect on land use and spatial plans (for this analysis, spatial plans go beyond land use by addressing spatial elements of economic development and other broader aspects).

The relationship between RBMPs and other planning documents varies across the different Member States. Even where there is a 'binding' effect, in some Member States the legislation provides for the possibility to depart from the RBMPs subject to certain conditions. For example, in Flanders, the regional spatial implementation, the spatial implementation plans or development plans may depart from the mandatory provisions of the river basin management under certain conditions and via a specific administrative procedure. In the Czech Republic, the Water Act lays down that RBMPs are background documents for land use planning. Thus, town and country planning authorities must take them into account, but the RBMPs are not binding on land use decisions (though decisions in variance must be justified). Similarly, in Scotland (UK), the RBMPs should be taken into account in the Scottish Government's review of the National Planning Framework.¹⁹

In addition, water authorities must be consulted on land-use plans in at least 13 Member States. Consultation may be limited to simply submitting opinions to the authority in charge of developing land-use and spatial plans; in some cases, however, consultation takes place in coordination structures such as specific councils or commissions.

The role of SEA is also important in this context. However, SEA has not been addressed in a systematic manner through all country reports, although some national experts have mentioned such procedures. In many Member States, RBMPs are subject to SEAs, and so are land use plans. The SEA process constitutes a useful framework to ensure consultation and involvement of the relevant authorities, including river basin authorities in land use planning.

These links are stronger for flood risk plans: RBMPs must be considered when preparing these in at least 24 Member States. Besides, the fact that the authorities preparing the plans are often the same as those responsible for the RBMP is central to the coordination of both documents. The links between flood risk plans and land-use and spatial plans were not further addressed in this study; it remains a topic for possible future analysis. Set out in the *Blueprint to Safeguard Europe's Water Resources*, released by the European Commission in November 2012, land use, including green infrastructure, are key measures to be addressed for the achievement of good ecological and

¹⁸ EEA, Territorial cohesion and water management in Europe: the spatial perspective, Technical Report No. 4/2012

¹⁹ EEA, Territorial cohesion and water management in Europe: the spatial perspective, Technical Report No. 4/2012

quantitative status of EU waters, and the governance related obstacles need to be further explored.²⁰

3.2.4 Permitting and enforcement across different key sectors

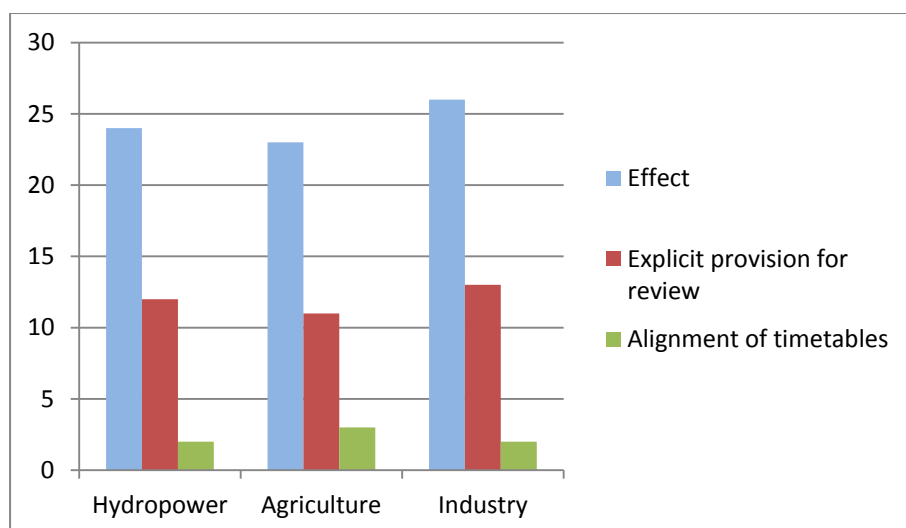
The Water Framework Directive calls on Member States to identify a range of controls as part of their Programmes of Measures (Art. 11(3)), including controls on freshwater abstraction and impoundment and controls on point sources and diffuse sources of pollution. Consequently, the directive links provisions for permitting to the PoMs.

Legal effect of RBMPs on permits in key sectors

In nearly all Member States, RBMPs have some legal effect on permits in key economic sectors. This is the case in particular for industry, where it is seen in 26 Member States, compared to 24 for hydropower and 23 for agriculture (see Figure 6 below). In several countries, general provisions on EIA, permitting and planning imply, on the basis of the legal status of the decision approving the RBMP and programmes of measures (PoM), that permits and concessions are to be made compatible with those. This is reinforced when the same authority is responsible for approving the RBMP and/or implementing the RBMP/PoM and granting permits.

A second consideration is whether there is an explicit provision to review existing permits and concessions in line with the environmental objectives of the RBMPs: this is seen in only 13 Member States for industry permits, and slightly less for hydropower and agriculture (Germany, where the situation varies from Land to Land, is not counted).

Figure 6: Relationship of RBMPs with permits and concessions for agriculture, hydropower and industry



²⁰ European Commission, A Blueprint to Safeguard Europe's Water Resources, COM(2012) 673 final, 14 November 2012

Note: Effect refers to one of the types of legal effect set out in Table 12, primarily linked to the nature of the act approving RBMPs and thus their rank in the hierarchy of legal acts. This can include a general legal effect that is not defined.

A third issue is whether the timelines for permits revision are aligned with the six-yearly reviews of the RBMPs, and whether there any specific circumstances triggering this review. This is found in few Member States: Romania for all three sectors under consideration; Denmark for hydropower (though this is not an important sector in Denmark); Bulgaria and France for agriculture; Ireland for industry.

Division of authorities for permitting across sectors

Seven Member States, including Denmark, Ireland and Italy, indicated that there are different authorities responsible for permitting different water users, agriculture or hydropower. Three of the seven – Bulgaria, France and Malta – reported all water permits were co-ordinated by the main WFD authority, reducing any impacts of fragmentation of responsibility.

Authorities involved in permit applications

A particular situation may occur when government authorities may also be involved in applications for permits. This can occur in a range of areas. One example is water abstraction for irrigation, if authorities manage irrigation networks and at the same time are responsible for the management of water quality and quantity. Other examples can include government bodies that carry out flood control investments that imply morphological alterations, and at the same time are responsible for achieving good status. Although conflicts of interest between different objectives (irrigation and water quality and quantity management) are inherent to the governance of water, it is particularly important to ensure that the quality/quantity objectives as laid down in the RBMPs, play a strong role in ensuring a wider temporal and spatial (catchment) perspective of decision, and this is valid both when the same authority is involved both in applications for certain water permits, and also in the decision to grant such permits, as well as when authority is the permitting authority separate from permit promoters.

The review found that in at least 11 Member States, government bodies may be involved in applications for permits as well as water management. These cases create a potential for conflicts of interest (see Table 13).

Table 13: Permit applicants involved in water resource management

MS	Abstractions	Impoundments	Point-source discharges	Diffuse pollution measures	Hydromorphological alterations
CY		✓			✓
CZ		✓			✓
EL	✓	✓			✓
FI	✓	✓			✓
FR	✓	✓	✓	✓	✓
LU					✓
NL	✓	✓	✓	✓	✓

PT		✓			✓
SE	✓				
SI	✓	✓			✓
UK					✓

In 7 of these 11 Member States, information has been found on mechanisms to address potential conflicts: these include public consultation, as well as reviews by higher authorities. Table 14 below lists examples of these mechanisms.

Table 14: Member State where government bodies may be involved in water permit applications: mechanisms to avoid potential conflicts of interest

MS	Mechanism to avoid conflict of interest
CY	Final approval of RBMP and PoM by Council of Ministers will ensure highest national priorities will prevail.
CZ	River basin administrators are state enterprises that deal with state property, mainly with water reservoirs. The river basin administrators are independent and they act in the public interest.
FR	Three elements to minimise conflict of interest. 1) public consultation; 2) opinion of regional committee (which includes representatives of stakeholders and local authorities); 3) decision of regional offices of the President.
LU	The Water Management Agency has the coordinating lead in all hydromorphological measures.
SE	Complaints about abstraction, water supply or waste water including charges for those services, can be taken to the Swedish Water Supply and Sewage Tribunal in the first instance, later to the 'Land and environmental court'.
SI	The measures relating to significant hydromorphological alterations are the subject of spatial planning procedures. For minor alterations (intervention in waterside land and riparian zone) state permission is necessary.
UK	The three environmental regulators may promote and review flood management infrastructure which may have hydromorphological alterations. Any such alterations must comply with the WFD, and not conflict with the PoMs.

Differences in enforcement across sectors

In seven Member States, differences are also seen in the enforcement authorities for permits in specific categories or sectors. Here too, this occurs in particular for IPPC(IED) installations, where the integrated permit includes wastewater discharges. In Austria, for example, enforcement for large IPPC(IED) installations is carried out at Federal level, while all other water-related enforcement occurs at Land and lower levels. Differences for other sectors are seen in Sweden, for example, where the counties enforce permits for hydroelectricity plants and mining, while enforcement of permits for most other sectors is divided between country and municipal level based on the size of the facility.

It should also be noted that differences for enforcement may occur when a single authority is in charge across different sectors: a recent IMPEL study shows that in some Member States, different

offices within national inspectorates are responsible for water and IPPC enforcement, and these have faced a number of challenges integrating requirements across different EU legislation.²¹

A key question is whether enforcement is comparable for permits across the sectors. Only in a few Member States did officials comment on this. A few did not mention major differences; in some Member States, however, comments referred to sectors that receive less enforcement attention (agriculture and hydroelectricity are among those mentioned). Some Member States are addressing such gaps: in Cyprus, for example, an initiative to control abstraction permits (and illegal abstraction) was highlighted: this project used satellite data as well as on-site inspections.

While the assessment focused on permits, efforts to address diffuse pollution from agriculture falls outside the permit system. To some extent, requirements under CAP – in particular for good agricultural and environmental condition (GAEC) and cross-compliance with environmental legislation such as the Nitrates Directive (91/676/EEC) – will address agricultural runoff. Information on enforcement of GAEC and cross-compliance was found for a few Member States. Based on the information gathered, it appears that enforcement for CAP requirements is largely carried out separately from other enforcement activities related to water.

3.2.5 Conclusions regarding policy integration

The Water Framework Directive highlights the importance of sectors such as agriculture and energy in terms of their impacts on water resources.

Coordination between water authorities and authorities responsible for these sectors is a key element of policy integration. The assessment found that WFD authorities are involved in the industry sector in about half the Member States. Such involvement is less common for other sectors, and low in particular for energy and transport. Agriculture is also a key sector affecting water resources: while WFD authorities are also the lead authority for this sector in six Member States and have shared in involvement in two others, such a link was not found for the other Member States.

Integration with other areas of water and environmental policy is also important. The study found that WFD authorities had a lead or shared role for bathing water, drinking water and nitrates in just over half of Member States. Involvement is more frequent for other areas of water management and for habitat conservation and climate change policy.

Links with spatial and land use planning bring a further element of complexity. In many Member States, regional and/or local governments lead in these areas of planning. While RBMPs have some effect on spatial and land use plans in at least 21 Member States, this can range from vague provisions to binding requirements.

Overall, the legal basis for RBMPs is a crucial element determining their impact on other areas of government action, including permitting. Only one-third of Member States clearly require administrative decisions to not contradict RBMPs; in the other Member States, the legal role of the RBMPs is less clearly established.

²¹ A. Farmer and V. Cherrier, Linking the Water Framework Directive and the IPPC Directive: Report of Phase 2 of the Project, IMPEL, 2011

3.3 Stakeholder involvement

Stakeholders affect, and are involved, in various ways in decision-making in the different policy areas and levels of governance of relevance for reaching the objectives of the WFD. For example, they may have relevant formal legal competences, as is the case for regional governments, municipalities and line ministries, for example for agriculture and transport. Other stakeholders may be involved more indirectly through informal contacts with relevant authorities or may command significant resources which can affect implementation of the WFD. For example, stakeholders often possess important information regarding specific local and sectoral conditions, access to which is critical for, for instance, the design and implementation of RBMPs. Similarly, stakeholders may command resources which can be co-opted to increase the effectiveness of WFD implementation.

The Water Framework Directive calls for stakeholder involvement:

Member States shall encourage the active involvement of all interested parties in the implementation of this Directive, in particular in the production, review and updating of the river basin management plans... (Art. 14(1))

Article 14 identifies three stages of stakeholder and public consultation, each requiring at least six months for feedback:

- Timetable and work programme for the production of the plan (at least 3 years before the plan begins, i.e. 22nd December 2007);
- Overview of the significant water management issues (SWMI) identified in the river basin (at least 2 years before the plan begins, i.e. 22nd December 2008);
- Draft of the river basin management plan (at least 1 year before the plan begins, i.e. 22nd December 2009);

The second European Water Conference in 2009 emphasised the importance of public participation, in particular in the preparation of the RBMPs, then underway.²² The Conference showed that a range of outreach and consultation mechanisms were employed. These have been confirmed in the RBMPs: the Internet was widely used to provide information on RBMPs and also to written consultation; meetings and workshops have also been widely used. A few Member States have undertaken innovative public information activities, including travelling exhibitions as well as school activities.

This section reviews provisions for stakeholder involvement at two stages in implementation: first, the preparation of RBMPs; and second, ongoing coordination for the implementation of the RBMPs. Stakeholder participation is important at national level – and also at international level, as many river basins cross borders: the section closes with an overview of the role of stakeholders in international river basins.

²² European Commission, Conference Report: Plunge into the debate – 2nd European Water Conference (Brussels, 2-3 April 2009)

3.3.1 Stakeholder involvement at national level

Article 14 of the WFD sets provisions for public participation, in particular in the preparation of RBMPs. In at least 21 Member States, formal, ongoing mechanisms for stakeholder involvement are reported. Moreover, at least 18 Member States have established advisory bodies involving stakeholders.

Such structures can be set up at national level (e.g. the National Water Management Council in Hungary) or river basin level, as in the water conferences and councils in Slovenia or Basin Committees in France. In the UK, consultation is organised both between the Environmental Agency for England and Wales and the National Liaison Panel (i.e. at regional level) and through the River Basin Management Liaison Panels (at the level of RBD).

In most (but not all) of these Member States, legal provisions set out specific mechanisms for participation. In many MS, these provisions identify key stakeholders, such as water users (in some cases they also call specifically for the participation of certain government authorities).

These mechanisms provide a more structured and regular process of consultation, involving the main stakeholders in a more pro-active manner.

Nonetheless, the impact of the consultation on the RBMPs is not always clear. Only in some RBMP specific documents or chapters have been developed that transparently present the outcome of the consultation, the changes introduced in the plans and justify the non-inclusion of other suggestions.²³

Through the implementation of the RBMPs leading to the second cycle for the WFD there is also an expectation that stakeholders will continue their involvement in implementation. Permanent stakeholder councils and advisory bodies can provide a mechanism for ongoing involvement. The Catchment-Based Approach, launched in England (UK), brings together key institutional players for water and land-use management as well as a range of stakeholders in individual catchments.

3.3.2 Observers in international river basins

As many river basins cross national boundaries, stakeholder and public participation is also important in an international context. In 12 international river basins and sub-basins, observers are involved in basin-wide work. In a further 5 basins and sub-basins, observers have a role but information is not available to define it.

Observers are involved in basin-wide work in Europe's largest share river basins, the Danube and the Rhine. In the Danube, for example, observers at ordinary meetings of the International Commission for the Protection of the Danube River include environmental NGOs, industry (including, for example, associations of dredging companies and of water supply companies), research associations and international organisations. For the Rhine, relevant observers are represented in working groups at the international level and in the plenary assembly/coordination committee: recognised observers for the International Commission for the Protection of the Rhine include interested national

²³ Information from the compliance checking of RBMPs under the framework contract for technical support on the Water Framework Directive.

governments that are not directly part of the Commission, international organisations as well as industry associations and NGOs.

3.3.3 Conclusions regarding stakeholder involvement

The WFD has specific provisions to ensure stakeholder involvement. The findings show that some stakeholder involvement is seen in the preparation of RBMPs in nearly all Member States. Moreover, 21 Member States have ongoing mechanisms for stakeholder involvement that could support the implementation of the RBMPs.

The largest international river basins, such as the Danube and the Rhine, have provisions for stakeholder involvement. However, this does not appear to be the case for most other international basins and sub-basins.

3.4 Enforcement systems

Effective enforcement is of critical importance for reaching the WFD objectives. Reflecting the fact that the WFD is a framework Directive, this does not only apply to the Directive itself, but also to measures in many other areas. Relevant measures include the Industrial Emissions Directive and the Nitrates Directive, to name just a few examples.

In its Preamble, the Water Framework Directive underlines the importance of ‘full implementation and enforcement’ of existing environmental legislation (recital 53). The Directive calls on Member States ‘to determine penalties applicable to breaches’; these should be ‘effective, proportionate and dissuasive’ (Art. 10).

In 2001, however, the *Recommendation on minimum criteria for environmental inspections in the Member States* (RMCEI) highlighted the ‘wide disparity in the inspection systems and mechanisms among Member States’ in terms of capacities and the scope and contents of the tasks undertaken for environmental inspections (Preamble, recital 8).²⁴

Enforcement remains an important concern, along with implementation: the EU Environment Council, in December 2010, called on the Commission and Member States to ‘enhance and improve’ the implementation and enforcement of EU environmental legislation.²⁵ In 2012, the European Commission released a Communication on better knowledge and responsiveness for environmental measures.²⁶ The Communication noted that there is a ‘lack of data on compliance and enforcement work being undertaken at national level by inspectors, prosecutors and courts’.

This section provides an overview of two key areas: data on enforcement activities, and information on the levels of sanctions. It concludes with a note on differences in enforcement approaches across Member States.

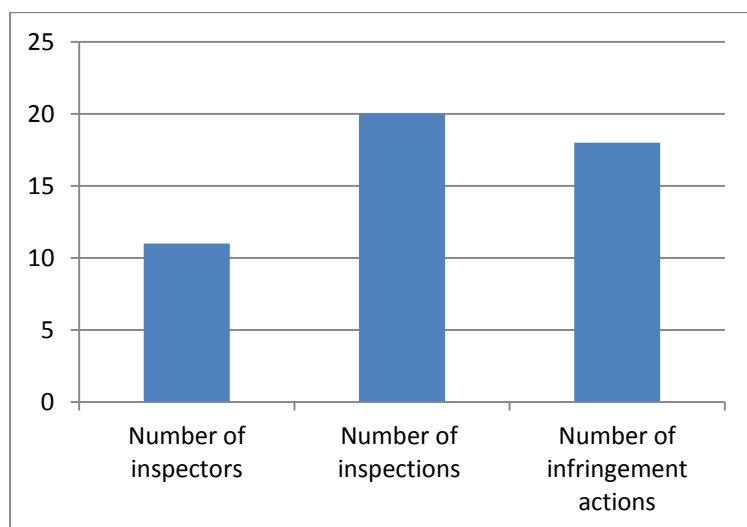
3.4.1 Data on enforcement activities

The review searched for information on the number of inspectors, inspections and infringement actions carried out in Member States: 20 have some information on the number of inspections carried out, and 18 on the number of infringement actions (see Figure 7 below). However, in most Member States this information refers to all environmental inspections – only in five was information found on inspections in the water sector. Moreover, as seen in section 3.1, in many countries several authorities are in charge of enforcement in the water sector: only for 11 Member States does that data found cover all main enforcement authorities; in most cases, this is for countries that have one main enforcement authority. Data collection was difficult in particular for federal and quasi-federal Member States: in none of these was a national overview of data on enforcement found.

²⁴ Council of the European Union, Improving environmental policy instruments: Council conclusions, 3061st Environment Council meeting, Brussels, 20 December 2010

²⁵ Council of the European Union, Improving environmental policy instruments: Council conclusions, 3061st Environment Council meeting, Brussels, 20 December 2010

²⁶ COM (2012)95 final, 7 March 2012

Figure 7: Number of Member States with data on enforcement activities

3.4.2 Level of sanctions

The approach to sanctions can vary greatly across Member States; differences in legal systems are a key influence. In general, sanctions can be divided into those under administrative law and those under criminal law.

Administrative sanctions are applied directly by authorised government enforcement officials. They can include a range of actions, from warnings to orders to come into compliance or otherwise redress a violation.

In many Member States, administrative sanctions also include *monetary fines* for violations. In Denmark and Ireland, however, fines are not included among administrative sanctions, and are found only under criminal law. This is also the case in the UK for Northern Ireland and Scotland; in England and Wales, however, a system of administrative fines has recently been introduced for environmental violations. A system of administrative fines for small violations is under study in Scotland.

Criminal sanctions are applied under criminal law, and thus via national court systems. Directive 2008/99/EC requires Member States to establish measures to address criminal offences related to the environment, including protection of waters.

While a comparison among sanction systems is difficult, a review of the information gathered shows that the maximum level of administrative fines ranges greatly, from under 3000 Euros in Lithuania to 2.5 million Euros in Portugal. The maximum prison sentence under criminal sanctions goes from 2 years in the UK to up to 20 years in Romania.

3.4.3 Differences in enforcement approaches

While the comparisons in data available show important disparities across Member States, it should be noted that approaches to enforcement can vary significantly.

IMPEL has pointed out that some Member States follow a strict ‘command-and-control’ approach to enforcement, focusing on immediate application of sanctions for violations.²⁷ Other Member States make greater use of dialogue with violators in routine cases. Indeed, the information gathered for some Member States, such as Denmark, points to a sequence of actions are taken when a violation of a water permit is detected, starting from non-binding requests, and leading to fines or other actions only if the problem is not resolved. In other Member States, however, it appears that inspectors commonly apply fines at an early stage.

3.4.4 Conclusions regarding enforcement systems

Many differences are seen across the Member States in terms of their approaches to enforcement in the area of water governance as well as the number of inspections and level of sanctions. At the same time, data in this area are incomplete. It will be valuable to strengthen EU-wide data in this area, in line with recent Commission communications that call for better enforcement of EU legislation and better information on enforcement activities.

²⁷ IMPEL, Strategy of enforcement: final report, 2011

3.5 Financial resources for the programmes of measures

OECD (2012) highlights the need to ensure that long-term financial needs are matched with revenue streams (including taxes and tariffs), and identifies inadequate financial management as a key risk for good governance.

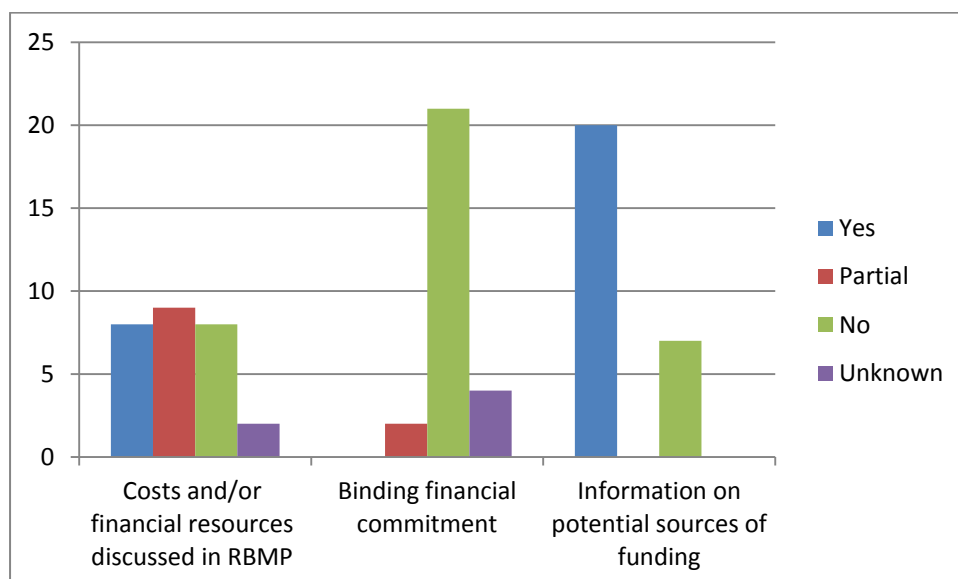
Under the WFD, sufficient resources are needed to implement the measures set out in PoMs. Such measures may include investments in technologies and infrastructure to prevent water pollution, but also to facilitate better planning and co-ordination among authorities and with stakeholders, including across national borders. A clear identification of the resources required to implement the PoMs - including the source of funding – is particularly critical under current conditions where public budgets are constrained by the economic and financial crisis.

This section provides an overview of the information in the RBMPs on the financial resources available, including whether these resources are clearly allocated and committed.

3.5.1 Financial commitments in RBMPs

Only in eight Member States do the RBMPs provide good information on the costs and/or financial resources for the Programmes of Measures, though partial information is provided in a further nine Member States (see Figure 8 below). In some cases, subordinated plans – such as the regional RBMPs in the Czech Republic – include cost estimates for specific projects. In some Member States, such as Italy, the extent of information varies among the RBMPs.

Figure 8: Information in RBMPs on financing and commitments

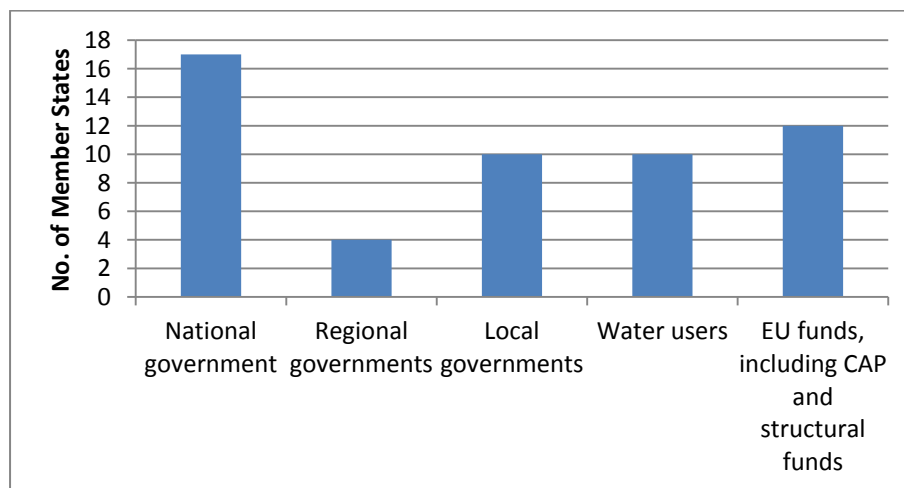


Financial commitments – that is, an explicit reference to money set aside for the PoM – are found in only two Member States, and only in a partial manner: in Latvia, measures have been changed due

to a lack of financial commitments, indicating a link; in Luxembourg, once approved the RBMP can be a form of financial commitment.

Nonetheless, the RBMPs in 20 Member States have at least some information on the potential financial sources for the PoM. It should be noted that for this topic, it has not been possible to differentiate between full and partial information – i.e. whether the information covers all financial needs or only part – as this is often not clear in the RBMPs.

Figure 9: Sources of financing for PoMs cited in the RBMPs, by Member State



As shown in the figure above, among the 20 Member States whose RBMPs provide information on financing sources, 17 refer to national government budgets, while 12 cite EU funds. RBMPs in fewer Member States refer to local government budgets and water users; only in 4 Member States are regional government budgets mentioned. In addition, RBMPs in two Member States – France and Portugal – cite RBD authorities as a mechanism for spending (in continental Portugal, however, RBD authorities were absorbed into a national agency in 2012).

The results show that in general, financial resources are not allocated directly in RBMPs or PoMs. While many Member States provide some information on costs and financing sources, it is often in the form of estimates and with an identification of potential rather than definitive sources. One common issue is that RBMPs and PoMs have a six-year time scale; as a rule, the allocation of national public finances is done on a yearly basis (though some sources, and notably EU funds, are allocated on a multi-annual basis). While many RBMPs have indications of funding sources, the mechanisms for financial allocation often are not clearly set or no information is easily available. In some countries, nonetheless, it appears that broad amounts are earmarked to the implementation of the RBMP on a non-binding basis.

3.5.2 Resources for cooperation in international river basins

The analysis for international river basins shows that financial resources for joint cooperation are fully or partially available in 15% of the international river basins (this mainly relates to financing staff in international river commissions but not of projects). This includes, however, Europe's largest shared river basins, the Danube and the Rhine.

In contrast, 85% international river basins coordinate their work without shared resources. Participation of representatives of basin sharing countries is only financially supported in 5% of the international basins.

3.5.3 Conclusions regarding financial resources

Financial resources are necessary to carry out the measures set out in PoMs. In a total of 21 Member States, RBMPs and PoMs indicate potential sources of financing. The study found, however, that the RBMPs and PoMs of only eight of these Member States provide good information on the costs of measures and the financial resources that will be used to cover these costs.

3.6 Transparency

OECD highlights the need for transparency in decision-making for water policy, in particular in complex, multi-level governance systems. An important function of transparency is to ensure that all interested actors are informed and can participate adequately in the process. This is offset out in the Water Framework Directive, which sets out a list of contents required for RBMPs (Annex VII). Public access to clear and complete RBMPs is a key element for ensuring accountability.

This section focuses in particular on the public availability of RBMPs and related information at national level. It also looks briefly at transparency at international level.

3.6.1 Public availability of RBMP documents

A review in late 2012 showed that nearly all RBMPs were publically available via web links²⁸. The review shows that web pages were available for nearly all river basin districts, and the RBMPs could be easily found in all Member States (except those where RBMP preparation was still underway: Belgium, Greece and Spain). In most Member States, these web pages had information also on the public participation process for the RBMPs, or indicated that this information was available in the plans themselves. In addition, information was found on the RBD web pages in 16 Member States on mechanisms for ongoing participation in water issues.

Table 15: Availability of information on RBMPs and public participation process

MS	No. of RBDs	Web pages for RBDs	RBMP available	Information available on public consultation for RBMP	Information available on ongoing public participation
AT	1 ^a	1	1	1	-
BE ^b	6 ^c	6	5	3	(3)
BG	4	4	4	4	-
CY	1	-	1	1	1
CZ	3	3	3	3	2
DE	10	**	10	10	**
DK	4	-	4	4	4
EE	3	3	3	3	3
EL ^b	14	-	-	-	(10)
ES ^b	25	14	7	15	(14)
FI	8	8	8	8	7
FR	12	12	11	12	7
HU	1	1	1	1	1
IE	7	7	7	7	4
IT	8	7	7	5	1
LT	4	4 ^d	4	3	-
LU	1 ^a	1	1	1	-

²⁸ The review used the DG Environment web pages providing web links to RBDs:
http://ec.europa.eu/environment/water/participation/map_mc/map.htm

MS	No. of RBDs	Web pages for RBDs	RBMP available	Information available on public consultation for RBMP	Information available on ongoing public participation
LV	4	4 ^d	4	4	-
MT	1	1	1	1	-
NL	4	-	4	4	-
PL	10	10 ^d	10	10	10
PT ^b	10	8	8	9	8
RO	1	1	1	1	-
SE	5	5	5	5	5
SI	2	2	2	2	-
SK	2	2	2	2	-
UK	16	16	16	16	16

a. Only one national plan, though Austria and Luxembourg each belong to more than one international RBDs

b. First RBMP cycle not complete as of late 2012. In these Member States, information on ongoing participation may refer to the phase of RBMP preparation.

c. Belgium is part of four RBDs (all international); information is provided for the six RBMPs prepared across the three Belgian regions

d. A single web page found for all national RBDs

** Information not found at national or RBD levels; may be available at Länder level

Separately, the assessment of RBMPs reviewed their presentation: it was found that RBMPs in 11 Member States are clear and well-structured; in others, some plans are not as well-structured and information can be difficult to find. A few Member States, such as the UK and Belgium (Flanders Region) had fact sheets on water bodies that provided essential information for the general public. A few Member States had clear executive summaries for their RBMPs. In other Member States, however, RBMPs referred to detailed sub-plans and background information, and not all of these documents were easily available. As noted in section 3.5, one important factor for the Programme of Measures, a clear overview of costs and potential financial resources, is not complete in many Member States.

Information on other aspects of water governance, including implementation and enforcement, is also important for accountability. As noted in section 3.4, data on enforcement activities – such as the number of inspectors, inspections and infringement actions – has been found for 20 of the 27 Member States. Nonetheless, the data that were found or provided vary greatly.

3.6.2 Transparency in international river and sub-basins

The review looked at seven international RBDs, all in Category 1 (i.e. strong level of coordination). All seven had a dedicated web site for the international RBD, and the international RBD was available for all (please see the table below). These international web sites also provided background studies and other information on the international RBDs. In five of the seven RBDs, information was found on public consultation carried out for the RBMPs. Only in one, however, was information available on mechanisms for public participation on ongoing issues.

Table 16: Availability of information on RBMPs in selected international RBDs

RBD	Web pages for RBD	RBMP available	Information available on public consultation for RBMP	Information available on ongoing public participation
Danube	✓	✓	-	-
Elbe	✓	✓	✓	-
Ems	✓	✓	-	-
Escaut/Scheldt	✓	✓	✓	-
Maas/Meuse	✓	✓	✓	-
Rhine	✓	✓	✓	-
Shannon	✓	✓	✓	✓

3.6.3 Conclusions regarding transparency

The review has shown a strong level of transparency, as nearly all RBMPs were easily available on the internet in late 2012. The RBMP review, however, found that RBMPs in many Member States are not clearly structured, and it appears that only a few countries have provided summaries specifically for public information and raising public awareness. Transparency is also strong in Europe's large international RBDs. Less information seems to be available on mechanisms for ongoing participation.

3.7 Adaptability and long-term planning

The *Blueprint to Safeguard Europe's Water Resources* highlights several key themes to address existing obstacles and prepare for ongoing challenges. These include: improving land use, addressing water pollution, increasing water efficiency and resilience and improving governance. The Blueprint cites the EU's goals to focus on green growth and increase water efficiency, as well as the risks posed by increasing drought risks and flood-related losses and other impacts of climate change.

This section looks backwards, at the changes prompted by the WFD on water governance, and forwards, at the next RBMP cycle and also at long-term issues.

3.7.1 Influence of the RBMP on national governance approaches.

In at least eight Member States, the WFD has led to the establishment of new authorities for water management, and in at least five, the WFD has led to significant changes in existing authorities. In other Member States, existing authorities have taken on the implementation of the WFD.

In the area of enforcement, while the WFD does not appear to have had a direct influence on the structure of authorities that carry out enforcement in the area of water, in several Member States, there have been improvements in enforcement related to the WFD and the development of RBMPs. These improvements included: stronger river basin and catchment approach to enforcement; greater consistency in enforcement; and better enforcement overall, due in some Member States to greater resources, and in others to a better identification of pressures.

3.7.2 Influence of the RBMP on international cooperation

The desk research and interviews indicate that the WFD has had a strong impact on cooperation in international river and sub-basins: the analysis found that it improved cooperation in 85 basins, over 80% of the total, and led to partial improvements in 10 others.

In the Category I basins (i.e. those with a high degree of international coordination), key areas where the WFD strengthened cooperation include: common understanding of water management objectives to be achieved on the basin-wide level, development of an international RBMP, definition of significant water management issues, maps that illustrate the outcomes on WFD requirements, overview on the water status in international river basins (surface waters and groundwater), improved joint monitoring network that also includes the biological quality elements, harmonisation of results and summary of PoMs towards harmonisation.

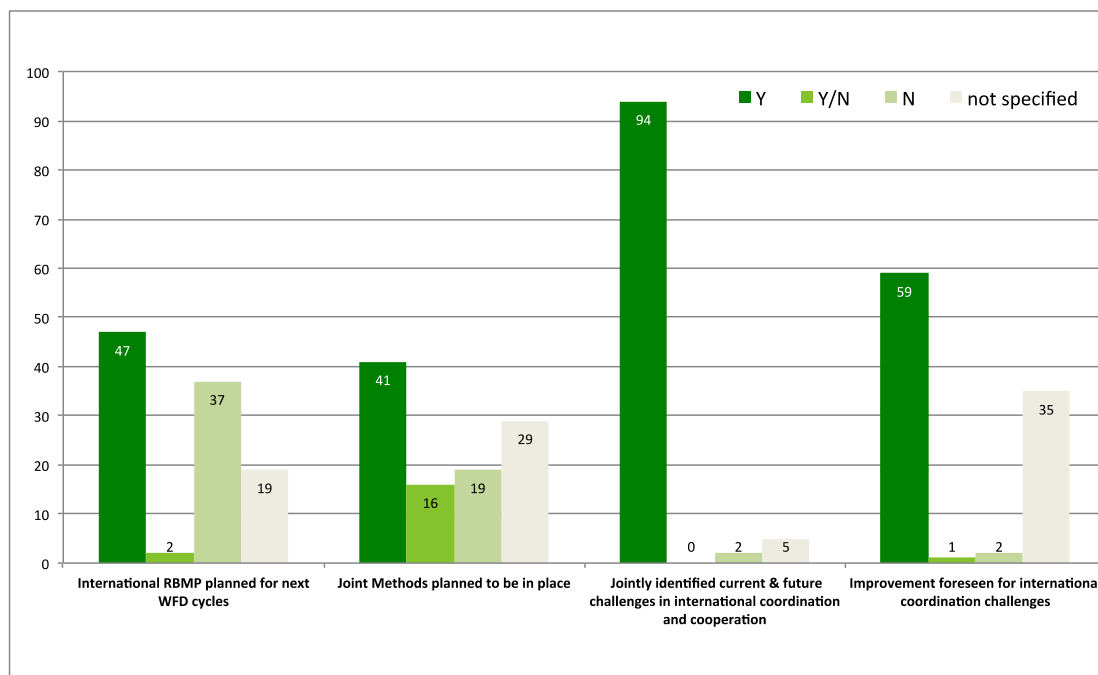
3.7.3 Future improvements expected at international level

In 59 international river and sub-basins, desk research and interviews show that improvements in coordination are expected in the coming years.

- In 47 of these basins, international RBMPs are planned for the next WFD cycles, an increase from the 12 seen in the current cycle.

- Joint methods are planned for 41 basins and some work is expected in 16 more – at present, these are in place for 30 basins, though they have been formally adopted or practically applied only in 7.
- Finally, in over 90% of the international river and sub-basins, joint work to identify challenges is expected.

Figure 10: Areas of future challenges and improvements identified for international coordination and cooperation (by number of river basins and sub-basins).



These results indicate that international cooperation is expected to grow, with a large increase in international RBMPs prepared and joint methods carried out.

3.7.4 Strengthening adaptability

The *Blueprint to Safeguard Europe's Water Resources* highlights the need to improve the information base and governance in order to address ongoing and future challenges. It highlights the need for a stronger science-policy interface, better reporting, as well as further awareness-raising, in particular on water consumption. These elements are needed to provide effective responses to the challenges highlighted in the Blueprint, such as climate change and increased risks of extreme events; they will require new and potentially stronger governance mechanisms.

3.7.5 Conclusions regarding adaptability and long-term planning

The Water Framework Directive has prompted a few Member States to change and strengthen their authorities for water governance and in some cases also to strengthen enforcement, and it has been

an important stimulus for stronger international coordination and cooperation. Further efforts are expected in many international river basins in the next cycle.

The *Blueprint to Safeguard Europe's Water Resources* highlights the need to address ongoing and future challenges, including adaptation to climate change and strengthening governance.

3.8 Preliminary conclusions on effectiveness and possible areas for follow-up

This report has provided a first overview of governance aspects of EU water policy, in particular regarding implementation of the Water Framework Directive. OECD has underlined the importance of governance for effective water management.²⁹ Good governance is necessary in order to achieve the overall purpose of the Water Framework Directive (Art. 1), the protection of Europe's waters to contribute to sufficient water supply, to pollution reduction and to achieving the objectives of international agreements, and its objective of achieving good water status across the EU's water bodies.

This section provides an overview of the report's findings in terms of the criteria for good governance identified in the introduction (section 1), and then an overview of possible areas for follow-up work.

3.8.1 Effective integration across administrative levels and policy sectors

OECD underlines the need for multi-level governance that addresses different administrative and territorial levels as well as different actors. The Water Framework Directive incorporates a multi-level approach, as it addresses the EU as well as Member State levels, and moreover sets out river basin districts – both within and across Member States – as a key level for implementation.

Administrative levels

At international level, coordination appears strong in Europe's large river basins shared among several countries, including the Danube and the Rhine. These large river systems cover much of EU territory and most of the area of its shared river basins. Coordination is also strong in some bilateral river basins, such as those between Ireland and the United Kingdom. However, it is much less developed in other cases, including river basins shared with third European neighbours in Eastern Europe as well as some basins in southern Europe.

At national level, several levels of administration are involved in water governance in most Member States. The overview brings out the importance of authorities at regional level: these are found in 13 Member States (not including regional offices of national authorities). Local authorities are involved in at least nine Member States.

Water management authorities at RBD or catchment level are seen in only nine Member States; on in three are there main authorities at this level. At first glance, this is surprising, given the WFD's emphasis on RBD-level management. Many Member States, however, have carried out RBD-level management at national level: this is the case in particular for Member States with smaller geographical areas, such as Slovenia and Cyprus.

In many Member States, a range of specific functions – such as RBMP preparation, permitting and licensing – are often divided among authorities. In a few cases, different authorities are responsible for specific water categories. Enforcement may involve additional authorities, such as environmental inspectorates as well as national and local police.

²⁹ OECD, OECD studies on Water: Water Governance in OECD Countries – A Multi-Level Approach, 2011

These results confirm that a complex, multi-level governance structure is in place for most of the EU's waters.

Policy sectors

The Water Framework Directive highlights the importance of key sectors, such as agriculture and energy, in terms of their impacts on water resources. This review has look at several aspects of policy integration in a range of sectors.

The legal basis for RBMPs is one crucial element. Here, the first issue is the level and type of act on the basis of which the RBMPs are adopted, as this will determine their role in national legal hierarchies and thus their potential effect on existing permits, plans and programmes affecting key economic sectors. Further legal provisions, such as a specific requirement to review permits on the basis of the RBMPs, will further strengthen the role of river basin planning. While in most Member States the RBMPs have a legal effect, often this is vague; few Member State states have established, for example, clear provisions to review permits in light of RBMP requirements or to align the timetables of permit reviews with the six-year RBMP cycle.

At the administrative level, a key issue is the involvement of water governance authorities in other policy areas. In a few cases, there is direct involvement, as in Portugal, where the same ministry is in charge of environment and agriculture. In many Member States, there are coordination mechanisms in place between WFD authorities and those leading on some sectoral policies, but less so on others, such as energy and transport. In some cases, integration is needed across water and environmental policy: the review has shown that in many Member States, the authorities leading on the WFD are not in charge of the implementation of other key water legislation, such as the Nitrates Directive.

Links with spatial and land use planning bring a further element of complexity. In many Member States, regional and/or local governments lead in this planning, which is crucial for economic and sectoral development and thus for future pressures on water bodies.

Coordination mechanisms

The conclusions on both administrative levels and policy sectors highlight the risk of fragmentation. These results underline the need for effective coordination mechanisms

The study has shown that coordination mechanisms are in place in Member States, both among administrative levels as well as across policy sectors. It has not been possible, however, to assess the functioning and effectiveness of these mechanisms: this appears to be an important issue for further review. Moreover, the fact international river basins cover the majority of EU territory indicates a need to ensure that sufficient coordination mechanisms extend across Member State and third country borders.

A related issue is whether the roles and responsibilities of different authorities are clearly assigned, though here too, it has not been possible to assess potential overlaps, which would require more detailed country study.

3.8.2 Transparency and public and stakeholder involvement

The involvement of stakeholders in both the preparation of RBMPs as well as their implementation appears to be a key accomplishment of the WFD. The study shows that public participation mechanisms were used in all Member States. At least 18 Member States have established advisory bodies involving stakeholders, either at national or river basin or other sub-national levels.

Moreover, information is available to the public on the RBMPs. In nearly all Member States, RBD web sites have been set up and the RBMPs can be downloaded. Information on, or links to, the public participation process for the preparation of the RBMPs is indicated on most of these web sites, though information on participation mechanisms for implementation is less common.

At international level, 12 river basins have formal structures that involve observers, including water users and NGOs. Notably, this approach is seen in the EU's largest international basins, including the Danube and the Rhine. Moreover, web sites, often in several languages, are available for these large international basins. Much less information appears to be available, however, for other international basins, including many bilateral ones.

3.8.3 Effective enforcement mechanisms

In its Preamble, the Water Framework Directive underlines the importance of 'full implementation and enforcement' of existing environmental legislation (recital 53). The Directive calls on Member States 'to determine penalties applicable to breaches'; these should be 'effective, proportionate and dissuasive' (Art. 10).

Many differences are seen across the Member States in terms of their approaches to enforcement in the area of water governance as well as the number of inspections and level of sanctions. At the same time, data in this area are incomplete. It will be valuable to strengthen EU-wide data and exchange of experience on enforcement related to water permits and requirements, in line with recent Commission communications calling for better enforcement of EU legislation and better information on enforcement activities.

3.8.4 Allocation of sufficient financial resources

Financial resources are a key element for the implementation of the Programmes of Measures. In most Member States, it appears that the information available is rather weak. The RBMPs and PoMs are often not the appropriate instrument to allocate government funds, which are committed via budgets. Nonetheless, many RBMPs and PoMs do not have detailed information on costs and only indications of financing sources. In the current financial crisis affecting the EU, government expenditures face restrictions in many countries. With the lack of detailed information on costs and financial resources for many Programmes of Measures, it is not clear or transparent whether the measures are cost-effective or realistic. Member States may be addressing costs and financial resources in the run up to the December 2012 deadline when the PoMs are made operational (Art. 11(7) of the WFD). This appears to be a key area for attention, both in the implementation of the first round of RBMPs and also in preparations for the second round.

3.8.5 Adaptability and long-term planning

The Water Framework Directive has prompted a few Member States to change and strengthen their authorities for water governance and in some cases also to strengthen enforcement. The WFD also has been an important stimulus for stronger international coordination and cooperation. Further efforts are needed in many international river basins in order to implement the requirements of the Directive, and coordination is expected to become stronger in many international river basins in the next cycle.

The *Blueprint to Safeguard Europe's Water Resources* highlights the need to address ongoing and future challenges, including adaptation to climate change. The next cycle of river basin planning can be valuable in addressing these issues, at both national and international levels. These challenges may also require new and innovative approaches to water governance.

3.8.6 Possible areas for follow-up research

This review has identified a number of important issues where further work could be valuable in terms of filling information gaps and strengthening governance across the EU. These include the following:

- The study has identified key administrative authorities, and also described the legal basis for RBMPs. To better understand how well the EU's multi-level governance is working, however, it will be necessary to look more closely at the role of *coordination mechanisms* and their functioning.
- Information provided in the RBMPs on *financial resources* has not been strong – however, cost analysis and financial resources are vital for the effective implementation of the Programmes of Measures. This topic deserves regular monitoring and review.
- The legal analysis has shown that the links between RBMPs and the *review of permits* vary greatly across Member States. It would be important to understand where the RBMPs have indeed led to reviews and updates of permits, and how this process has been carried out.
- Coordination is expected to be strengthened in many *international river basins* in the next cycle. Here too, it would be valuable to monitor progress and see where the EU level can provide guidance and support.
- In the area of *enforcement*, it would also be valuable to understand in greater detail the links between the WFD, and in particular RBMPs, and national enforcement approaches, including coordination mechanisms. This work, which could be carried out in the context of IMPEL, could identify good practices for enforcement in the water sector. Better data and information on enforcement actions in Member States is needed to understand water governance, and is also valuable in the follow-up to the Commission Communication on Improving the delivery of benefits from EU environment measures: building confidence.

Part II. Administrative arrangements

4 Introduction

4.1 Background to the assignment

The Terms of Reference identified Task 1a as:

The purpose of the task was to identify the roles/competencies of the competent authorities for everyday water management tasks and other sectoral policies related to water, and to assess their effectiveness, including how are these competent authorities operating at a broader strategic level, in relation to other policies in society. The study aimed at identifying the role is of newly created RBD authorities compared to other "models" of administrative arrangements. A mapping exercise of competent authorities was undertaken

The main Objective of Task 1a is: *To establish the roles, responsibilities and relationships between Competent Authorities and other national bodies involved in implementing the WFD.*

5 Methodology

A questionnaire designed to gather information relating to the task's objectives was developed and agreed with the Commission. Consultants and Commission Staff initially gathered information to answer the questions using an on-line template. The information was subsequently validated and supplemented with input from Member State SCG representatives. This report is a synthesis of the information gathered from all Member States and indicates where MS SCG representatives have not validated information.

In assessing the administrative arrangements, four geographical levels were identified to summarise the results from MS³⁰.

- National Authorities
- Regional Authorities
- Local Authorities
- River Basin Authorities

³⁰ **Federal and unitary structures:** Three Member States have a formal *federal* structure: Austria, Belgium and Germany. Three other Member States have a *quasi-federal* structure: Italy, Spain and the United Kingdom are in this category. As the results show, in the federal and quasi-federal countries, the regional level usually has a strong, often leading, role in water management. In these countries, powers are *decentralised* to autonomous regions. It should be noted that Member States have a range of structures and approaches. Several, such as Poland and the Czech Republic have autonomous regions, though these do not appear to have the range of powers of those in the three Member States classified as quasi-federal. Indeed, a number of unitary countries have a role for regional authorities: this is also the case for the counties in Sweden. In other cases, such as Finland, authorities that belong to the national government at regional level have an important role. The purpose here is not to analyse in depth national structures, but rather to point out the importance of this factor for governance in the water sector.

6 Summary of reported information

This analysis covers the full breadth of the questions posed during the information gathering phase and provides a summary of the key statements and situation within MS for the implementation of the EU WFD. Full details of the responses from MS are provided in the Member State Governance fact sheets (provided separately). In this section, the responses from MS have not been synthesized or harmonised, for example when reporting authorities responsible for the RBMP/PoMs multiple types of authorities were presented.

This version of the analysis is based on a mixture of validated responses received from SCG representatives as of 30th August 2012, and non-validated responses to the questionnaire, completed by consultants and Commission Staff. The MS included in this analysis but not validated by the SCG are: EL, FR, IT, MT, PL, PT.

This summary presents the responses to the questions under the following headings:

- Main and supporting administrative authorities with responsibility for WFD implementation
- Monitoring authorities
- Permitting and licensing authorities
- Relationships with authorities responsible for other directives / policies / sectors
- Involvement of stakeholders
- Significant changes to water governance resulting from national implementation of the WFD

Table 17: Main and supporting authorities by geographical level

MS	<i>Federal State</i>	National	Regional units of national administration	Autonomous Regions	RBD/catchment authorities	Local authorities
AT	<i>F</i>	✓		✓		
BE	<i>F</i>	✓		✓		
BG		✓	✓		✓	✓
CY		✓				
CZ		✓	✓	✓	✓	
DE	<i>F</i>	✓		✓		
DK		✓				✓
EE		✓	✓			✓
EL		✓	✓	✓		
ES	<i>Q</i>	✓		✓	✓	
FI		✓	✓			✓
FR		✓	✓		✓	
HU		✓	✓		✓	✓
IE		✓				✓
IT	<i>Q</i>	✓		✓	✓	
LT		✓	✓			
LU		✓				

MS	Federal State	National	Regional units of national administration	Autonomous Regions	RBD/catchment authorities	Local authorities
LV		✓	✓			✓
MT		✓				
NL		✓		✓	✓	
PL		✓		✓		
PT		✓		✓*		
RO		✓	✓		✓	✓
SE		✓		✓	✓	✓
SI		✓				
SK		✓	✓	✓		
UK	Q			✓		

Notes: Main and supporting authorities by geographical level (main authorities are highlighted in yellow). The "national" authority is in most cases the Ministry of environment. Where provided, details of MS main and supporting authorities are summarised in Annex 1. Information from EL, FR, IT, MT, PL PT not validated by SCG.

* Autonomous regions of Azores and Madeira only.

6.1 Main and Supporting Administrative Authorities with responsibility for WFD implementation

The main / supporting authorities in MS with overall **responsibilities for implementing the WFD** fall into the following broad categories:

- National authorities: in all but two Member States, there is a main authority – a ministry or delegated agency co-ordinating the MS approach to the implementation of the WFD – at national level. In 17 Member States, the main competent authority or authorities are only found at national level. In four of these, more than one main authority is involved at national level: in the Czech Republic and Finland, two ministries appear to share this role for WFD implementation; in Malta, two authorities share this role; and in Romania, the ministry responsible for environment and an agency focusing on water management are identified as the two main authorities. Regional offices of national authorities are found in at least 11 Member States. In Finland, for example, regional offices under the national government play an important role in implementing the WFD.
- Regions with some level of autonomy play a role in 13 Member States, including all those identified with a federal and quasi-federal structure, and authorities at this level have a leading role in 7 Member States. In Germany and the UK, the regional level has a notably strong role, as a main authority was not identified at national level. (In Belgium, the Federal level leads only for coastal waters, though it has a coordinating role across the regions as well).
- Local authorities play a role in at least 9 Member States, and in one, Ireland, this appears to be a leading role.
- River basin authorities have a role in 9 Member States, and appear to have a leading role only in three: France, Italy and Sweden (in Bulgaria and Romania, however, river basin authorities are part of leading authorities at national level).

Table 17 above summarises the geographical scope for the main and supporting authorities with responsibilities for implementing the WFD.

Responsibilities for water categories

Most MS have the same authority with responsibility for all water categories (rivers, lakes, transitional, coastal, artificial bodies and groundwater). Six MS (BE, ES, LT, MT, PL, SE) have additional authorities responsible for specific water categories (mostly coastal and transitional waters). In these MS the co-ordination mechanisms and the differing responsibilities are summarised in Annex 2.

The following observations on WFD authorities can be made:

- In all MS the same authorities were involved in developing the RBMPs and the PoMs;
- In most MS the main authority with responsibility for the RBMPs/PoMs are also involved with monitoring and (to a lesser extent) with permitting. In seven MS (DK, EE, EL, IE, IT, LV, SE) permits are not co-ordinated by the main competent authority and an inventory of permits is only not maintained in two MS (CY, EL).
- Six MS have different authorities involved (either with shared or sole responsibilities) for implementing the WFD for different water categories (BE – coastal; ES - coastal/transitional; LT - groundwater; MT – coastal; PL – coastal/groundwater; SE – groundwater).
- Four main levels of authorities were identified for WFD implementation: National, regional, local and river basin authorities. Only in FR is the main co-ordinating body based at the river basin level, although in other MS (BG, CZ, ES, HU, IT, RO and SE) river basin authorities have responsibility for various activities (including preparation of RBMPs/PoMs, monitoring and permitting).

In five MS advisory/consultative bodies have been established to assist the main WFD competent authority with the development of the RBMPs and the implementation of the WFD. These include: BE (Federal Co-ordination Committee), BG (River Basin Councils), IE (National Co-ordination Group), PL (International Co-operation) and the UK (Technical Advisory Group). In some cases (e.g. BG) these are also the forum for stakeholder consultation and participation.

6.2 Monitoring authorities

In nearly all Member States, national authorities have a role in monitoring. Regional and local authorities have a role in fewer countries. Only five Member states have river basin authorities involved in monitoring. In twelve Member States, the responsibility for monitoring is split between different levels of authorities, such as national authorities and local authorities. The highest number of different levels of authority responsible for monitoring is three, although most Member States split the responsibility between two levels.

The levels of authorities reported as having **responsibility for monitoring** are:

- **National authorities:** Most MS have a national authority for monitoring (or aspects of monitoring).

- **Regional authorities:** the following MS have a regional responsibility (possibly in co-ordination with other centralised/local or river basin authorities) for monitoring: DE, ES, FR, IT, LT, NL, RO, SE, UK.
- **Local authorities:** The following MS have local authorities (possibly in co-ordination with other centralised/regional or river basin authorities) for monitoring: FI (operational), IE (investigative), NL, SE, UK (investigative).
- **River basin authorities:** the following MS implement monitoring through river basin authorities (possibly with co-ordination with other centralised/regional/local authorities): BG, CZ, FR, IT, RO.

Most MS have a single authority responsible for monitoring of all water categories. For 11 MS, additional authorities have responsibilities for monitoring of transitional waters, coastal waters and groundwaters. Table 18 summarises the MS where different authorities are responsible for monitoring different water categories.

Table 18: MS where additional authorities are involved with monitoring specific water categories

Water Category	Member State
Transitional	ES, IE, LV, PT,
Coastal	BE, ES, FR, IE, LV, MT, PT, RO
Groundwater	HU, LT, NL, SE

Where there are multiple authorities responsible for monitoring, the co-ordination mechanisms used are summarised in Table 19. These indicate that although there is some fragmentation, means are in-place to ensure co-ordination (additional information for these MS is given in Annex 3).

Table 19: approaches to coordination between authorities responsible for WFD monitoring.

Coordination approach	Member State
Coordination organised by one central authority.	AT, DK, FI, IE, LT, LV, NL, PT
Coordination organised by more than one central authority.	HU
RBD authorities coordinate.	BG, SE

Approximately half of all MS have only one authority responsible for requesting monitoring to be undertaken. In addition, seven MS (BE, IE, HU, LT, LV, RO, SE) reported that there was a split of responsibilities for different water categories.

Five MS (CY, HU, IT, RO, UK) reported that the authority with responsibility for monitoring also used their own staff/facilities to collect the information. Only one MS (SK) used exclusively contracted services with the majority of MS using a mixture of own facilities and contracted services (in five MS – AT, EL, MT, NL, PL – the response was unclear).

Table 20: Co-ordination, inventories of permits and differing authorities/process for permitting

MS	Permits co-ordinated by main WFD CA	Inventory of permits	Differing authorities / processes to permitting for different water users.
AT			
BE			
BG			
CY			
CZ			
DE			
DK			
EE			
EL			
ES			Note 1
FI			
FR			
HU			
IE			
IT			
LT			
LU			
LV			
MT			
NL			
PL			
PT			
RO			
SE			
SI			
SK			
UK			

Key:

Yes	
No	
No info	

Note 1: ES-although different authorities are involved for permitting different water users, the approach adopted to the permit process was reported to be the same.

6.3 Permitting and licensing authorities

The levels of authorities reported as having **responsibility for permitting** are:

- **National authorities:** Most MS have a co-ordinating or other role for the main WFD authority with regards to permitting (although in most cases the operational aspects of permitting are the responsibilities of regional /local authorities) except IT where this falls under regional authorities.
- **Regional authorities:** the following MS have regional authorities with a responsibility for permitting: DE, IT, LV, UK

- **Local authorities:** the following MS have local authorities with a responsibility for permitting: DK, EL, FI, IE, IT, SE
- **River basin authorities:** Only in FR has the river basin authority responsibility for permitting.

Table 20 summarises the responses with regards to co-ordination of permits by the main Competent Authority and indicates where an inventory of permits is maintained. Table 17 also shows where there are different authorities responsible for permitting different water users (abstractions, impoundments, point source discharges, diffuse pollution measures, hydromorphological alterations) with different permit processes for these users.

Fourteen MS indicated that the same authorities (and process) were used for permitting different water users. Eight MS (BE, BG, DK, ES, FR, IE, IT and MT) indicated that there are different authorities responsible for permitting different water users, with three MS (BG, FR, MT) indicating that the permits were co-ordinated by the main WFD authority, thus reducing any impacts of fragmentation of responsibility. Co-ordination approaches reported by MS where additional authorities are involved in permitting and where different authorities are involved in permitting different water users are presented in Annex 4.

Applicants for permits (for example state bodies involved in abstraction, flood control etc.) may also be involved in water management as shown in Table 21 and, where given, mechanisms for preventing any conflicts of interest between permit applicants and the approval process are summarised in Table 22.

Table 21: permit applicants involved in water resource management

MS	Abstractions	Impoundments	Point-source discharges	Diffuse pollution measures	Hydromorphological alterations
CY		✓			✓
CZ		✓			✓
EL	✓	✓			✓
FI	✓	✓			✓
FR	✓	✓	✓	✓	✓
LU					✓
NL	✓	✓	✓	✓	✓
PT		✓			✓
SE	✓				
SI	✓	✓			✓
UK					✓

Table 22: mechanisms to avoid potential conflicts of interest in the permitting and licensing process

MS with permit applicants involved in water resource management	Mechanism to avoid conflict of interest
CY	Final approval of RBMP and PoM by Council of Ministers will ensure highest

MS with permit applicants involved in water resource management	Mechanism to avoid conflict of interest
	national priorities will prevail.
CZ	River basin administrators are state enterprises that deal with state property, mainly with water reservoirs. The river basin administrators are independent and they act in the public interest.
FR	Three elements to minimise conflict of interest. 1) public consultation; 2) opinion of regional committee (which includes representatives of stakeholders and local authorities); 3) decision of regional offices of the President.
LU	The Water Management Agency has the coordinating lead in all hydromorphological measures.
SE	Complaints about abstraction, water supply or waste water including charges for those services, can be taken to the Swedish Water Supply and Sewage Tribunal in the first instance, later to the 'Land and environmental court'.
SI	The measures relating to significant hydromorphological alterations are the subject of spatial planning procedures. For minor alterations (intervention in waterside land and riparian zone) state permission is necessary.
UK	The 3 environmental regulators may promote and review flood management infrastructure which may have hydromorphological alterations. Any such alterations must comply with the WFD, and not conflict with the PoMs.

The other twenty MS did not identify a need for a mechanism to avoid conflicts of interest (for example where different authorities are involved in the permit application and approval stages) or did not report any mechanisms.

6.4 Relationships with authorities responsible for other directives / policies / sectors

Integrating approaches between the different water related directives and policies are considered to be key to successful implementation of the WFD. MS were requested through the questionnaire (Q4 & 5) to identify the main relationships between the WFD Competent Authority and authorities with responsibility for implementing other directives and policies.

- Urban Waste Water Treatment
- Bathing Waters
- Drinking Waters
- Floods
- Marine
- Habitats
- Climate
- Agriculture
- Energy
- Transport
- Industry (IPPC and non-IPPC)
- Mining

Table 23: Involvement of the main WFD CA in other environment directives / policies.

MS	UWWT	Nitrates	Bathing Waters	Drinking Water	Floods	Marine	Habitats	Climate
AT								
BE								
BG								
CY								
CZ								
DE								
DK								
EE								
EL								
ES								
FI								
FR								
HU								
IE								
IT								
LT								
LU								
LV								
MT								
NL								
PL								
PT								
RO								
SE								
SI								
SK								
UK								
Main CA lead	22	8	10	7	20	21	16	14
Shared involvement	2	9	5	6	0	3	4	8
Total CA involvement	24	17	15	13	20	21	20	22

Key

Main CA involvement	
Shared involvement	
No Involvement	
No information	

Table 23 shows the involvement of the main WFD competent authority in other water/environment related directives/policies. The table also indicates the number of MS where the main Competent Authority is responsible or shares responsibility for the policies.

Table 24: Involvement of the main WFD CA in other sectors

MS	Agriculture	Energy	Transport	Industry (IPPC)	Industry (non-IPPC)	Mining
AT						
BE						
BG						
CY						
CZ						
DE						
DK						
EE						
EL						
ES						
FI						
FR						
HU						
IE						
IT						
LT						
LU						
LV						
MT						
NL						
PL						
PT						
RO						
SE						
SI						
SK						
UK						
Main CA lead	6	2	2	7	4	3
Shared involvement	2	3	2	6	4	4
Total CA involvement	8	5	4	13	8	7

Key

Main CA involvement	
Shared involvement	
No Involvement	
No information	

Table 24 shows whether the main WFD competent authority is involved in the key sectors listed above. A summary indicates the number of MS where the main Competent Authority is also responsible or shares responsibility for the sector management.

The following observations can be drawn from these results:

- The main WFD Competent Authority is responsible (or shares responsibility) for the key water related policies/directives (UWWTW, Nitrates, Floods, Marine Directive, Habitats and climate change) in the majority of MS, with the exceptions being about half MS WFD Competent Authorities being involved in Bathing Waters or Drinking Waters related policies (generally these are the responsibilities of health ministries);
- For most MS, the main WFD Competent Authority is not involved in the economic sectors (agriculture, energy, transport some industry and mining) which are supervised by other authorities (e.g. ministries of agriculture, energy, transport, economy etc.). The exception is that about 50% of MS have the main WFD Competent Authority also involved in industries under IPPC control.

MS reported a wide range of co-ordination mechanisms employed to ensure co-ordination between authorities responsible for different sectors and policies. These include:

- Formal legal obligations (e.g. where relationships are defined by law – AT, BG, HU, SE);
- Inter-ministerial committees (e.g. CY, EL, MT, CZ);
- Direct involvement by the main WFD Competent Authority in other policy / sectors (e.g. DK, HU, IT, NL);
- Co-ordination undertaken by WFD Competent Authority (e.g. FR, PL, RO); and,
- Steering groups and advisory bodies (e.g. FI, IE, LV, UK).

6.5 Involvement of stakeholders

Engagement and active involvement of the public and stakeholders was an expectation in the preparation of the RBMPs. Through the implementation of the RBMPs leading to the second cycle for the WFD there is also an expectation that stakeholders will continue their involvement. MS were asked (Q6 in Annex 1) to summarise the involvement of users and other stakeholders in the implementation of the Directive and to summarise if any consultative bodies were established to assist with implementation. Table 25 summarises the responses of the MS.

Most MS indicated that, following the involvement of stakeholders through the consultation processes required in developing the RBMPs, there is an on-going involvement with stakeholders with the implementation of the Directive. In addition most MS also indicated that advisory/consultative bodies had been established as a result of the RBMP development and would facilitate the implementation of the plan. Annex 5 summarises the information identified from the MS' templates on continuing stakeholder involvement and the establishment of consultative bodies to assist / advise on the implementation of the WFD.

Table 25: Summary of on-going stakeholder involvement and establishment of advisory bodies for WFD implementation

MS	On-going formal stakeholder involvement	Established advisory bodies
AT		
BE		
BG		
CY		
CZ		
DE		
DK		
EE		
EL		
ES		
FI		
FR		
HU		
IE		
IT		
LT		
LU		
LV		
MT		
NL		
PL		
PT		
RO		
SE		
SI		
SK		
UK		

Key:

Yes	
No	
No info/ unclear	

6.6 Significant changes to water governance resulting from the national implementation of the WFD

MS were requested (Q7) to identify if new water governance authorities were established as a result of the WFD or if there had been any changes to existing authorities, and these are summarised in Table 26.

Table 26: Establishment of new authorities or significant changes to existing authorities

MS	Establishment of new authorities	Significant changes to existing authorities
AT		
BE		
BG		
CY		
CZ		
DE		
DK		
EE		
EL		
ES		
FI		
FR		
HU		
IE		
IT		
LT		
LU		
LV		
MT		
NL		
PL		
PT		
RO		
SE		
SI		
SK		
UK		

Key:

Yes	
No	
No info/ unclear	

Eight MS indicated that the development and/or implementation of the RBMP had resulted in the establishment of new authorities with responsibility for water management. Five MS indicated that the WFD had resulted in significant changes to existing authorities. The following examples illustrate new bodies or changes to existing authorities as a result of the WFD process.

- BE (Flanders): Creation of a Co-ordination Committee on Integrated Water Policy;
- BG: Formation of four River Basin Directorates;
- EE: Formation of a committee for organising water management and working groups;
- EL: Establishment of a Central Water Agency;
- FR: Creation of national office of water and aquatic ecosystems;
- IT: Creation of provisional authorities bringing together regions within RBD and ministries;

- LT: Creation of a special division on River Management within the Environment Agency;
- LU: Creation of the Water Management Agency;
- LV: Formation of a Water Unit within the Latvian Environment, Geology and Meteorology Centre;
- UK (NI): Formation of an Abstraction and Impoundments licensing team and the establishment of a public body dealing with water in NI.

7 Conclusions

The following conclusions can be drawn from the assessment of Administrative Arrangements from the completed MS' templates that indicate the achievements of integration (between authorities, water categories, policies, sectors and stakeholders) and the changes (adaptability) to authorities as a result of the WFD plan and its implementation.

- In all MS the same authorities were involved in developing both the RBMPs and the PoMs;
- In most MS the main authorities with responsibility for the RBMPs/PoMs are also involved with monitoring and (to a lesser extent) with permitting.
- Six MS have different authorities involved (either with shared or sole responsibilities) for implementing the WFD for different water categories.
- Four geographical levels of administrative authorities were identified across the EU: national, regional, local and river basin authorities.
- In MS where there are multiple authorities responsible (for example 6 MS have different authorities for different water categories, 12 MS have different authorities for monitoring, 8 MS involve different authorities for permitting different water users) co-ordination mechanisms and processes are in place to assist in providing an integrated management approach.
- In five MS advisory/consultative bodies have been established to assist the main WFD competent authority with the development of the RBMPs and the implementation of the WFD.
- Approximately half of all MS have only one authority responsible for requesting monitoring to be undertaken. Seven MS reported that there was a split of responsibilities for different water categories.
- Five MS reported that the authority with responsibility for monitoring also used their own staff/facilities to collect the information. Only one MS (SK) used exclusively contracted services with the majority of MS using a mixture of own facilities and contracted services
- Fourteen MS indicated that the same authorities (and process) were used for permitting different water users. Eight MS indicated that there are different authorities responsible for permitting different water users, with three MS indicating that the permits were co-ordinated by the main WFD authority reducing any impacts of fragmentation of responsibility.
- The main WFD Competent Authority is responsible (or shares responsibility) for the key water related policies/directives (UWWT, Nitrates, Floods, Marine, Habitats and climate change) in the majority of MS. Approximately 50% of MS indicated that WFD Competent Authorities were involved in Bathing Waters or Drinking Waters related policies (generally these are the responsibilities of health ministries);

- For most MS, the main WFD Competent Authority is not involved in the economic sectors (agriculture, energy, transport some industry and mining) which are supervised by other authorities (e.g. ministries of agriculture, energy, transport, economy etc.). The exception is that about 50% of MS have the main WFD Competent Authority also involved in industries under IPPC control.
- Most MS indicated that, following the involvement of stakeholders through the consultation processes required in developing the RBMPs, there is an on-going involvement of stakeholders with the implementation of the Directive. In addition, most MS also indicated that advisory/consultative bodies had been established as a result of the RBMP development and would facilitate the implementation of the plan.
- Eight MS indicated that the development and/or implementation of the RBMP had resulted in the establishment of new authorities with responsibility for water management. Five MS indicated that the WFD had resulted in significant changes to existing authorities.

Annex 1 - Overview of main and supporting competent authorities in the Member States

MS	Competent Authority / main coordinating authorities	Supporting authorities
AT	Federal Ministry of Agriculture, Forestry, Environment and Water Management (Lebensministerium)	Landeshauptmann, State-level authorities' administrative bodies – mainly district administrative authority (Bezirksverwaltungsbehörde), 84 county administrations and 15 statutory cities, police officers.
BE	Region and Federal State authorities (Brussels Government, CIW, Public Service of Wallonia (DGARNE & DG02), Federal Public Service For Public Health, Food chain Safety and Environment).	<p>Federal level: the Coordination Committee for International Environmental Policy. Federal (Coastal): Management Unit of the North Sea Mathematical Models and the Scheldt estuary; Minister for the North Sea.</p> <p>Flanders: VMM & INBO; Waterway managers, municipalities, provinces; LNE, Environmental Enforcement Court; police.</p> <p>Wallonia: DGARNE & ISSeP; Ibid; municipalities, provinces; police.</p> <p>Brussels: Brussels Institute for Environmental Management; police.</p>
BG	Ministry of Environment and Water	River Basin Directorates, River Basin Council, Supreme Advisory Council on Water, Executive Environmental Agency, National Institute of Meteorology and Hydrology, Institute of Oceanology, Executive Agency for Exploration and Maintenance of the River Danube, Regional Inspectorates for Protection and Control of Public Health, municipality mayors, Agency for Exploration and Maintenance of the River Danube, Regional Inspectorates on Environment and Waters.
CY	Minister of Agriculture, Natural Resources and Environment (MANRE)	Council of Ministers of the Republic of Cyprus (CoM), Advisory Committee, Ministry of Labour and Social Insurance
CZ	Ministry of the Environment (CZME), Ministry of Agriculture	Regional Authorities, River Basin Authorities, Czech Hydrometeorological Institute, Municipal Water Authorities, Regional Water Authorities, Central Water Authorities, Czech Environmental Inspectorate, Local Authorities.
DE	Länder Ministries for the Environment	Working Group on water issues of the Federal States and the Federal Government (LAWA), National River Basin Committees, German Federal Waterways and Shipping Administration, other Länder authorities (varies between Länder).
DK	Ministry of Environment (Nature Agency)	Municipalities, Aarhus University, Ministry of Environment (Environmental Protection Agency).
EE	Ministry of the Environment	Water Management Commission, National and River Basin working groups, Environmental Board, Estonian Environment Information Centre, scientific and research organisations, Ministry of Social Affairs, Environmental Inspectorate, local municipalities, Health Board.

MS	Competent Authority / main coordinating authorities	Supporting authorities
EL	Greek Central Water Agency (CWA) of the Ministry of the Environment, Energy and Climate Change	Regional/Provincial Water Directorates, Prefectures, Ministers of Environment, Agriculture, Development, Interior and Finance, Hellenic Environmental Inspectorate, Departments of Environment and Hydroeconomy of the Regions, Water Directorates of the Decentralised Administrations.
ES	Confederación hidrográfica, Hydraulic Administrations of the Autonomous Communities, Regional Governments, Ministry of Agriculture, Food and Environment (including Water Directorate).	National Government, Water Island Council, Regional Administrations, Hydraulic and maritime administrations, Agricultural Authorities of the Autonomous Communities, River Basin Authorities – Water Police, Nature Protection Service of the Civil Guard.
FI	Ministry of Environment; Ministry of Agriculture and Forestry	ELY Centres; Environment Institute; Game and Fisheries Research Institute; Regional State Administrative Agency or Municipalities' Environment Protection authority, other state and municipal authorities.
FR	Ministry of Environment & its regional offices, Water Basin Agencies	National office of water and aquatic ecosystems (ONEMA), National research laboratory, National institute for marine research and studies (IFREMER), National institute for geological and mining resources (BRGM), Departmental office of the French Ministry of agriculture (DDT), Departmental water Office (MISE), Prefect, Regional Departments for environment, planning and housing (DREAL), Gendarme, local authorities.
HU	Government, Minister of Rural Development	Local authorities; General Directorate of Water Management (& regional water directorates); National Institute for Environment, National & Regional Water Management Councils, Regional Environment, Nature and Water Inspectorates, Ministry of Interior; National Public Health and Medical Officer Services.
IE	Environmental Protection Agency (EPA); Local authorities	National Coordination Group, RBD advisory bodies, Marine Institute, Regional Fisheries Boards, Office of Public Works, National Parks and Wildlife Service, DELG, Minister for the Environment, Heritage and Local Government, Local authorities, Department of Environment, Community and Local Government (DECLG), Marine Institute, An Bord Pleanála, Office of Environmental Enforcement (OEE), National Parks and Wildlife, the Fisheries Boards, the National Bureau of Criminal Investigation, the National Police Service, the Northern Ireland Environment and Heritage Service, the Police Service of Northern Ireland, the Health Service Executive, the Revenue Commissioners, and the Director of Public Prosecutions, Department of Agriculture.

MS	Competent Authority / main coordinating authorities	Supporting authorities
IT	Ministry of Environment, Land and Sea; Regional authorities; RBD authorities, Venice Water Authority	RBD institutional committees, Council of Ministers, regional environmental protection agencies; research institutes; national Institute for Environmental Protection and Research, provinces, local authorities; Carabinieri (national police corps); national forest protection body; other police forces.
LT	Environmental Protection Agency (under Ministry of Environment)	Marine Research Department, Lithuanian Geological Survey, Regional Environmental Protection Departments, Government of Lithuania, regional police & prosecutors' offices, municipalities.
LU	Ministry for Home Affairs and the Greater Region	Water Management Agency, Police force, Agency for Customs and Excise, Environment Agency.
LV	Ministry of the Environmental Protection and Regional Development	Latvian Environment, Geology and Meteorology Centre, Latvian State Environmental Service & Regional Environmental Boards, Latvian Institute of Aquatic Ecology, State Environment Service & Regional Environmental Boards, Marine and Inland Waters Administration, State Environment Bureau.
MT	Malta Resources Authority, Malta Environment and Planning Authority	Inter-Ministerial Committee on Water, Ministry of Resources and Rural Affairs, Water Services Corporation, Directorate for Environmental Health.
NL	Ministry for Infrastructure and the Environment	Provincial executives, Water boards (waterschappen), municipalities, Regional Administrative Groups, Regional Management Groups, Central coordination bureau for river basins of The Netherlands, Rijkswaterstaat, National Inspectorate for environment and transport.
PL	National and Regional Water Management Boards, Minister for Water Management	Minister of Infrastructure, Ministry of Agriculture and Rural Development, Ministry of Economy, Ministry of Health, Chief Sanitary Inspectorate, Governors of districts, Voivodship Inspectorate for Environment Protection, Voivodship Sanitary Inspectorates, Directors of the Voivodship Meliorant and Water Structures Authority, Marshalls, Maritime Authority, Inland Waterways, Ministry of Environment, Inspection for Environmental Protection (& Regional Inspectorates).
PT	Continental Portugal: Ministry for Agriculture, Maritime Affairs, Environment and Regional Planning	Portuguese Environment Agency (APA) Basin District Councils, Portuguese Institute of Sea and Atmosphere, universities, General Direction of Natural Resources, Maritime Safety and Services, Captain of the Port, General Inspectorate of Agriculture, Sea, Environment and Territorial Planning
	Azores: Regional Secretariat of Environment and the Sea.	Regional inspectorates
	Madeira: Regional Directorate of Environment.	Regional Secretariat of Social Equipment, Port Administration, Regional inspectorates.

MS	Competent Authority / main coordinating authorities	Supporting authorities
RO	Ministry of Environment and Forestry, National Administration “Romanian Waters” (AR)	AR Water Management sub-basin branches, Sub-basin Committees, National Institute for Hydrology and Water Management, Hydrological Institute, Marine Research Institute, Water Interministerial Council, National Environmental Protection Agency, Local environmental agencies, National Environmental Guard, central and county public health bodies, local authorities/municipalities, regular police forces.
SE	Five Water Authorities, Swedish Agency for Marine and Water Management	Environment Protection Agency (EPA), Geological Survey of Sweden, water body advisory committees, Swedish Meteorological and Hydrological Institute, Water Councils, County administrative boards, Swedish university of Agricultural Sciences, local/regional authorities, municipalities, Land and environment court, Swedish Water Supply and Sewage Tribunal, Swedish National Grid.
SI	Ministry of Agriculture and the Environment	Inspectorate for Agriculture, Forestry, Food and the Environment (AKA Environmental Inspectorate), Slovenian Environmental Agency, Government of the Republic of Slovenia.
SK	Ministry of Environment	Government of Slovakia, State water authorities, Regional offices of environment, District offices of environment, Environmental Inspectorates, municipalities, Regional Environment Authorities, District Environment Authorities.
UK	England & Wales: Environment Agency	Department for Environment, Food and Rural Affairs (Defra), Welsh, Scottish and Northern Irish Ministers for Environment, RBD liaison panels, Technical Advisory Group for the WFD. England & Wales: Local government authorities, Natural England, Countryside Council for Wales, police, Rural Payments Agency Scotland: Scottish Environmental and Rural Services Northern Ireland: Loughs Agency
	Scotland: Scottish Environment Protection Agency (SEPA)	
	Northern Ireland: Department of the Environment (DOENI) & its Environment Agency (NIEA)	

Note: Member States with a single main authority are highlighted in yellow.

Annex 2 - Authorities responsible for different water categories and their coordination mechanisms

Member State	Approach	Coordination
BE	Central State authorities responsible for all water categories apart from coastal water bodies, which are the responsibility of a central federal authority.	Coordination is done at a senior management level. There is a federal-level coordination committee and there is a state-level coordination committee in the Flemish region.
ES	The 'Confederacion hidrografica' is an autonomous entity (under the Ministry of Agriculture, Food and Environment) that has responsibility for implementing the WFD in all water categories (except coastal and transitional waters – responsibility of the regional authorities.)	Coordination done at technical, senior management and political level. There are official bodies for coordination at national and river basin level.
LT	One central authority responsible for all surface waters (Environmental Protection Agency), with a separate central authority for groundwaters (Lithuanian Geological Survey)	Coordination is done at a technical, senior management and political level. Two central authorities are responsible for coordination (Environmental Protection Agency and Ministry of Environment).
MT	Two main central authorities: Malta Resources Authority (MRA) and Malta Environment and Planning Authority (MEPA). MEPA responsible for coastal waters and protected rivers, lakes and transitional waters. MRA responsible for the remaining rivers, lakes and transitional waters, plus groundwaters.	Coordination is done at senior management and political levels.
PL	The CEO of the National Water Management Board is responsible for all water categories except coastal water bodies, for which the Minister of Infrastructure is responsible.	No information
SE	RBD authorities responsible for all water categories. Additional authorities (SwAM/NV) responsible for rivers, lakes and transitional waters. The Swedish Agency for Marine and Water Management is responsible for coastal waters. The Geological Survey is responsible for groundwaters.	Coordination occurs at a technical, senior management and political level. It occurs on a national and regional scale.

Annex 3 - Division of monitoring responsibilities between water categories

The majority of MS have the same authorities responsible for monitoring in all water categories. Those that have different authorities for certain water categories are outlined in the table below.

Member State	
BE	Regions responsible for all water categories, except coastal waters, for which the federal state is responsible.
ES	The 'Confederacion hidrografica' is responsible for rivers, lakes, AWBs, and groundwater monitoring. The regional authorities have responsibility for coastal and transitional waters.
FR	Regional offices of the French Ministry of Environment (DREAL)- water basin agencies-National office of water and aquatic ecosystems (ONEMA) for all water categories. In addition the National Institute for marine research and studies (IFREMER) and the National Institute for geological and mining resources (BRGM) have responsibility for coastal waters and groundwaters respectively.
HU	Central authorities (National Environment, Nature and Water Inspectorate; General Directorate of Water Management) and their regional offices are responsible for all relevant water categories. For groundwater, additional responsible authorities are the Hungarian Office for Mining and Geology, and water users in general.
IE	Central authorities are responsible for all water categories. The EPA is responsible for monitoring in most water categories, but the Marine Institute is responsible for monitoring transitional and coastal waters.
LT	One central authority and some decentralised regional authorities (Environmental Protection Agency and regional Environmental Protection Departments) are responsible for monitoring in all water categories, except for groundwater, for which the Geological Survey is responsible.
LV	Central authorities are responsible for all water categories. The Latvian Environment, Geology and Meteorology Centre is responsible for monitoring in most water categories, but the Latvian Institute of Aquatic Ecology is responsible for monitoring transitional and coastal waters.
MT	Malta Environment and Planning Authority (MEPA) and Malta Resource Authority (MRA) responsible for rivers, lakes, transitional waters. The MEPA is responsible for coastal waters and MRA for groundwaters (there are no designated AWBs.).
NL	Rijkswaterstaat for state managed and Water Boards for regional rivers, lakes and AWBs. Transitional and coastal waters are the responsibility of Rijkswaterstaat and provinces have responsibility for groundwaters
PT	For continental PT the Portuguese Environmental Agency has responsibility for rivers, lakes, AWBs and groundwater. For coastal waters and transitional waters the Portuguese Institute of Sea and Atmosphere has responsibility. In the Azores the responsibility for all water categories is with Regional Secretariat of Environment and Sea.
RO	Decentralised regional authorities (AR Water branches and River Basin Authorities) are responsible for all water categories, apart from coastal water bodies, which are monitored by the Marine Research Institute.
SE	Same central and local authorities for all water categories (WA, County Administrative Board, SwAM), plus Geological Survey for groundwater bodies.

Annex 4 – Co-ordination between permitting authorities

Different authorities responsible for permitting different users and co-ordination mechanisms

MS	Division of responsibilities	Co-ordination
BE	<p>Abstractions: Flemish Region: Waterway managers. Walloon Region: Municipalities.</p> <p>Impoundments: Flemish Region: Municipalities or province. Walloon Region: either municipalities, province or regional administration.</p> <p>Point source discharges: Flemish Region: municipalities or provinces. Walloon Region: Municipalities, or regional government and environmental administration (D GARNE).</p> <p>Diffuse pollution measures: Flemish and Walloon Regions: No permitting system in place.</p> <p>HYMO: Flemish Region: Municipalities or provinces. Walloon Region: Either municipalities, provinces or the Walloon Region.</p>	Flemish Region: a coordination mechanism with advice is in place. Federal State: For permits issued by the Ministry of Economy, formal approval by the Ministry for the North Sea is required.
BG	<p>Abstractions Minister of Environment and Water, municipality mayors and the Basin Directorate.</p> <p>Impoundments: The Director of the Basin Directorate.</p> <p>Point source discharges: The Minister of Environment and Water, the Directors of the River Basin and the Executive Director of the Executive Environmental Agency.</p> <p>Diffuse pollution: The Minister of Environment and Water, the Minister of Agriculture and Food and the River Basin Directors.</p> <p>HYMO: The Directors of the River Basin Directorate.</p>	No information
DK	<p>Abstractions: Municipalities.</p> <p>Impoundments: Municipalities (not relevant for new impoundments).</p> <p>Point source discharges: Municipalities, MoE, Environmental Protection Agency.</p> <p>Diffuse pollution measures: MoE and for some measures, municipalities (e.g. wetlands).</p> <p>HYMO: Municipalities.</p>	No information
ES	<p>Abstractions: Confederacion hidrografica in each 'intercomunitaria' RBD and hydraulic administration of the Autonomous Community for 'intracomunitaria' RBDs</p> <p>Impoundments: As above</p> <p>Point source discharges: As above for rivers and lakes. Coastal/transitional waters – regional authorities</p> <p>Diffuse pollution measures: Agricultural authorities</p> <p>HYMO: As for abstractions for rivers and lakes. Coastal/transitional by the DG for the Sustainability of Cast and the Sea of the Ministry of Agriculture, Food and Environment.</p>	Water RBD Council (Consejo de Agua de Demarcacion) and the Competent Authorities Committee
FR	<p>Abstractions: Regional offices of the French Ministry of agriculture (DDT) for irrigation abstractions, Regional offices of the French Ministry of environment (DREAL) for all others users (industries, municipalities, leisure, etc.).</p> <p>Impoundments – no information.</p> <p>Point source discharges and diffuse pollution measures: Regional offices of the French Ministry of environment (DREAL) and ONEMA for metrology.</p> <p>HYMO: Regional offices of the French Ministry of agriculture (DDT), MISE, Regional offices of the French Ministry of environment (DREAL) and ONEMA for establishing metrology.</p>	Through the regional offices of the Ministry of Environment (DREAL) that maintains databases of permits.
IE	Abstractions: Local Authorities.	Local authorities are responsible

MS	Division of responsibilities	Co-ordination
	Impoundments: Local Authorities. Point source discharges: Local Authorities then EPA. Diffuse pollution measures: Local Authorities then EPA. HYMO: Local Authorities then EPA, planning permission may lead to appeal via An Bord Pleanála.	below threshold levels (IPPC) and where planning permission is required there are statutory guidelines provided by the DECLG.
IT	Abstractions: Regions and RBD authorities. Impoundments: Regions. Point source discharges: For IPPC installations the national Ministry of Environment. For smaller installations, the regions. Diffuse pollution measures: No information found. HYMO: Regions have the responsibility for protecting river banks and the strip of land at least 10 metres from the banks.	Where administrative decisions, including permits, involve more than one authority, a 'Tavola dei servizi' or 'Conferenza dei servizi' (Conference of services) is convened to reach a common decision.
MT	Abstractions: Groundwater abstractions: MRA. Impoundments, Point source discharges and HYMO : MEPA is responsible. Diffuse pollution measures: No detailed information on licensing of diffuse pollution activities.	There is no indication of coordination between the authorities regarding licensing issues.

Co-ordination approaches where more than one authority is responsible for issuing permits

MS	Approach
AT	The higher (central) authority (Lebensministerium) has overall control.
BE	Federal level: approval by central authority required. State level: coordination and advice between environmental and building permits.
DE	Inter-state authority coordination via information exchange and mutual agreement.
FI	Decentralised regional authorities (Regional State Administrative Agencies) work closely with local authorities and collect statements from other authorities (ELY-centres) regarding possible impacts of plans on RBMP objectives.
FR	The Ministry of Environment has a database of all permits.
IE	Local authorities generally responsible; follow central authority's guidelines where appropriate.
NL	If several authorities are relevant for a certain permit request, one takes charge based on a set of rules. Also, permit requests can be submitted at the municipality and will then be automatically transferred to the competent authority.
SE	As the main supervising authority for all types of permits, the Regional authorities have a key role. All companies which require a permit (water abstraction, impoundment, hydromorphological alteration) provide an annual environmental report to the County Administrative Board.

Annex 5 - Ongoing stakeholder involvement and consultative bodies established for WFD implementation

MS	Summary of stakeholder involvement during WFD implementation	Consultative bodies established to facilitate WFD implementation
AT	The public will further be involved through both information and participation.	
BE	Walloon Region: The Water Code expressly provides for stakeholder consultation through advisory committees set up by the regional government.	River Contracts have been established as an additional means of involving the public and stakeholders in water management. The stakeholders who are members of the advisory committees represent important sectors for water management such as agriculture, industry, the water sector, environmental NGOs, labour unions, etc.
BG		Basin Councils have been established
CY	An Advisory Committee represents the interests of all stakeholders and the progress of the implementation of the PoM.	The Advisory Committee represents a wide spectrum of the key stakeholders and their views are taken into consideration by the Competent Authority.
CZ		A Committee for Water Management Planning has been established.
DE	In various federal states and RBDs, different ways of involving the users/stakeholders are taken. Most of the federal states have established WFD councils at the ministerial level and also regional consultation bodies. These councils serve as a platform to consult with and inform stakeholders about WFD implementation.	These councils or forums are meeting on a regular basis (usually once or twice a year), and will be used in the further WFD implementation process.
DK	Advisory/consultative bodies and working groups will be established shortly involving municipalities, stakeholders and NGOs.	Advisory/consultative bodies and working groups will be established shortly involving municipalities, stakeholders and NGOs.
EE	The users and stakeholders are involved via working groups for sub-districts in regional/local level. Coordinating working groups were set for each river basin district separately with the aim to assure the implementation and update of the water management plans.	2 bodies have been formed - coordinating working groups for each river basin district and a national level Committee for organising water management. The Committee's aim is to organise the use and protection of water and integrate it to other sectors and coordinate the implementation of RBMPs including PoMs.
ES	There are different official bodies where stakeholders participate. In addition there are meetings, consultations.	Consejo de agua de Demarcacion/ Water Council of the River Basins
FI	Consultation is through the Regional Centres for Economic Development, Transport and the Environment Centres.	A co-ordination group has been established for each RBD.
FR	Stakeholders are regularly involved - local water management plans (SAGE), irrigation agreements on abstraction quotas, establishment of a programme of measures for most sensitive drinking water supply areas.	The water basin committees have this role.

MS	Summary of stakeholder involvement during WFD implementation	Consultative bodies established to facilitate WFD implementation
HU	Stakeholders are involved in the development of the RBMP as members of the National and Regional Water Management Councils. The water users (having permits for their activities e.g. water supply or waste water disposals) are involved with the implementation of WFD.	The remit of the National Water Management Council covers certain tasks relevant in the context of implementing the WFD. The Council aims to ensure that the objectives of the WFD are taken into consideration in other national and regional operative programmes and development plans.
IE	Formalised through the River Basin District Advisory Councils, which include public authorities, NGOs, community groups and private sector representatives.	River Basin District Advisory Councils.
LT	Many public awareness raising activities are foreseen, aimed at effective implementation of measures.	
LU	Key users and stakeholders, as well as the general public, are involved in the implementation of the WFD mainly via river partnerships.	The Water Management Committee has a task to scientifically evaluate implemented water-related measures.
LV	The users and stakeholders are involved via participation in the Advisory Council of the River Basin District.	An Advisory Councils meets at least twice a year after the approval of the RBMP.
MT	An Inter-Ministerial Committee on Water and sub-committees oversee the implementation of the plan, and have their focus on bringing together all key regulatory actors as well as key users and local stakeholders.	The sub-committees to the Inter-Ministerial Committee on Water have advisory functions.
NL	The RBMPs describe the active participation and awareness-raising on the implementation of the RBMPs and PoMs.	The National water consultation that was involved in implementing the WFD is also active in monitoring its implementation.
RO	AR and 11 AR branches liaise with those responsible for implementation of different measures and monitor the implementation of POM through stakeholders' ongoing involvement.	
SE	In many river basins Water organisations have been set up to engage interested parties, and these are supposed to be involved in all parts of the implementation.	
SI	Chapter 5 of the Water act provides for the establishment of a Water Conference and Council for each RBD but the system has not yet been established.	None.
SK	Active involvement is ensured by way of membership of representatives of stakeholders directly on the public working group and by direct negotiation.	The Ministry of Environment established an Interdepartmental coordination group for implementation of the WFD as an expert and consultative body of the Ministry.
UK	The involvement of stakeholders in the ongoing implementation of the Directive is formalised through the liaison panels, statutory consultations and through the WFD stakeholder forums.	The WFD Technical Advisory Group established for the development of the RBMP has a role in implementation.

Annex 6 - New authorities established or significant changes to existing authorities as a result of the WFD

MS	Establishment of new authorities and / or significant changes to existing authorities
BE	The Flemish Parliamentary Act on Integrated Water Policy (2003) introduced a new coordination and consultative structure for the coordination of the integrated water policy: the Coordination Committee on Integrated Water Policy (CIW).
BG	As a result of WFD four River Basin Directorates were established in 2002 as competent authorities for water management at river basin level. By the establishment of the River Basin Directorates, the competences related to waters have been re-distributed between the RBDs and the Regional Inspectorates of Environment and Water.
EE	To implement the RBMPs, a committee for organising water management (November 2011) and working groups for sub-districts (October 2010) have been formed.
EL	Central Water Agency: the CWA was established and has taken over various responsibilities related to water management that before that were 'scattered' across many ministries/state institutions. Regional Water Directorates and Councils were established within each River Basin District / Water Region (RBDs), with the responsibility of organising and coordinating water policy activities (including water pricing) and specific Water Programmes and Action Plans with specific measures for each RBD.
FR	To increase technical support for monitoring water quality status, and implement economic principles of WFD (PPP, cost recovery, payment for ecosystems services...), the National office of water and aquatic ecosystems (ONEMA) was created in 2006. Water basin agency lost part of their technical and research responsibilities which have been transferred to ONEMA. Another authority has been created on water bodies with quantitative imbalances: The organisation for collective management of water for irrigation (OUGC) in charge of sharing an annual volume of water between farmers of the area. These changes have led to a better clarification of the objectives and duties: Water agency: Polluter Pay Principle through its taxes/subsidies system ONEMA: Research, technical support and control
IT	The legislation transposing the WFD created eight RBDs. Each RBD will have an authority, and the institutional committees of these authorities will bring together the regions within the RBD as well as key national ministries. However, the current authorities are provisional.
LT	Competences regarding the WFD implementation were all delegated to the Lithuanian Environmental Agency. Special division on the River Basin Management Division was created. This has led to all information being one place.
LU	The Water Management Agency has been created as a result of the WFD.
LV	Since January 2004, a water unit in the Latvian Environment, Geology and meteorology Centre has been established for implementation of the requirements of the WFD. The water unit was in charge of the preparation of four river basin management plans. Since 2005, a Water Resources Unit is established also in the MEPRD.
UK	In Northern Ireland, the formation of the Abstraction and Impoundments licensing team and the establishment of a public body dealing with water in NI. This has led to a clearer identification of abstractions and thereby improved demand management in Northern Ireland.

Part III. Legal nature of RBMPs

8 Background

This task requires primarily giving an overview of the legal nature of RBMPs, that is, their legal status and effect. The legal nature of a RBMP depends on several criteria:

- Firstly, the legal status of the RBMP will depend on the rank of the RBMP within the national hierarchical order of policy and legal acts, considering its denomination, the adopting authority and the procedure for its adoption. These aspects aim at identifying the legal status of the plan in relation to other instruments, primarily in hierarchical terms.
- Secondly, the legal ‘effect’ of the RBMP in relation to other acts such as individual decisions on permit or spatial planning instruments. Here, the question relates more to the operational effect of the RBMP and would typically be regulated in the framework legislation on water or other relevant legal acts e.g. on territorial planning. The key issue is whether the plan is binding on these other decisions and instruments or not. The legal ‘effect’ should be considered not only in terms of legal relations but also considering how operational is the plan, how detailed and prescriptive are the measures provided for within the plan. It also implies looking at the alignment of the different decision-making processes over time.
- Thirdly, the extent and the allocation of financial resources over time for supporting the implementation of selected measures should also be considered as part of the analysis on the legal ‘effect’ of the RBMP. This involves a review of the mechanisms in place to secure the financial resources. For example, the financial allocations necessary for the measures set by the RBMP are approved together with the RBMP by the institution which has the competence to effectively commit financial resources (e.g. Parliament) or there can be a link made in the RBMP to parallel decision-making process e.g. on financial instruments such as the setting of economic incentives.

RBMPs’ legal nature could range from a rather strategic instrument setting a common overall vision of sustainable water management to a set of operational measures legally binding for all relevant economic sectors. It should be noted that there is no ‘ideal’ legal nature of RBMP as to their effectiveness, which should be considered in light of the national policy, legal and regulatory traditions.

9 Methodology

This report is based on national studies carried out by national experts in each of the 27 Member States on the basis of a common template. The information sources consisted of national legislation, primarily framework legislation on water and implementing regulations on RBMP when relevant. Other relevant legislation also included planning legislation and permitting legislation (e.g. IPPC). The principles of administrative law and the hierarchy of legal and administrative acts were also considered, as well as relevant case laws. In the case of Federal States where the legal status and

nature of RBMP is primarily regulated at regional level, only one region/state was covered e.g. Flanders for Belgium. National experts were also required to provide a list of main sources of information. The reports have then been validated by the Member State representatives of the Strategic Coordination Group (SCG) for the Water Framework Directive.

10 Findings on main characteristics of River Basin Management Plans

This chapter presents the findings and outcomes of the research on the legal value of RBMPs in the EU 27. The information was structured around a number of key questions posed on the following topics:

- The legal status of the River Basin Management Plans
- The legal ‘effect’ of the River Basin Management Plans regarding their relationship with:
 - Other individual decisions
 - Other sectoral policy plans (including land use plans, spatial planning, documents or flood risk management plans)
- Financial commitments i.e. the extent and the allocation of financial resources

The findings are organised in accordance with this structure and synthesized into comparative tables.

10.1 The Legal Status of River Basin Management Plans

The legal status of River Basin Management Plans (RBMP) in a given country can be characterised through an analysis of the procedure for approving the RBMP and the Programme of measures (PoM), considering which is the authority ultimately adopting the RBMP/PoM and by which type of acts. This allows determining the place of the RBMP within the national hierarchical order of policy and legal acts and therefore the legal value of the RBMP and which stakeholders are bind and to what extent. Conversely, the rank of the act adopting the RBMP has consequences as to which acts the RBMP should comply with.

In terms of approving authority and the type of act approving the RBMP/PoM, Table 27 gives an overview of the situation in the Member States. It indicates which authority ultimately adopts the RBMP/PoM and not which ones have to approve it before (for more details on these, please see the country reports in the Annex) and by which type of act. It then describes briefly the place of the RBMP in the hierarchy of norms and its overall legal status.

The review shows that, as a rule, the RBMP is adopted at a high level. In the majority of the Member States, the RBMP/PoM is approved by the Government or the Council of Ministers. This is the case in 16 Member States. In such instances, the RBMP/PoM has quite a high status as it would, as a rule, impose upon the ministries and other governmental agencies, as well as administrative authorities. In five other Member States, the RBMP/PoM is approved by the Ministry of Environment (in the case of Germany, Länder Ministries of Environment). It would then have a legal force at least upon the administration in charge of environment, which is typically responsible for granting permits.

Table 27 Act approving RBMP

MS	Approving authority	Type of act adopting RBMP/PoM	Place in hierarchy of norms and legal status
AT	Federal Minister of Agriculture, Forestry, Environment and Water Management	Ordinance	The RBMP is approved by a federal ordinance and as such is binding on the whole federal territory. It must comply with the federal Constitution and the federal laws. Federal administrative decisions and Länder ordinances and Länder administrative decisions need to comply with the RBMP. The Ordinance approving the RBMP declares chapters 5 (environmental objectives) and 6 (water management system) to be binding to the extent stipulated in that ordinance. Chapter 6 on the water management system includes the Austrian programme of measures. Generally the RBMP is not directly binding to private persons but it has a directly binding effect on the administration. Therefore, only the administrative decision which, for example, authorises actions of private persons may be challenged before the courts, if it is contrary to the RBMP.
BE ³¹	Flemish Government	Governmental Decision	The RBMPs are planning documents approved by Governmental Decision. In the hierarchy of legal acts, on the one hand, it falls under laws and regulations (decrees). It cannot contradict other laws and regulations. On the other hand, it stands above water-related administrative decisions including sub-basin management plans. Besides, it applies only on the river basin scale and to specific regional entities and authorities. Hence plans cannot modify national-level administrative decisions. Legislation provides that authorities must take into account the established RBMPs in their decision-making. Authorities' decisions must be motivated in this respect and must take into consideration relevant set objectives.
BG	Council of Ministers	Governmental Decision	RBMPs are planning document. The decision for adoption is a sub-legislative act, and therefore cannot contradict laws. It covers a specific river basin and as such should respect nation-wide planning documents such as the National Environmental Strategy and the National Strategy for management and development of the water sector (both adopted by the National Assembly). RBMPs should be 'connected' to other plans within the scope of the relevant territorial division, including regional development plans, spatial-development, forest-management, park-management and other such plans. Any plan which does not conform to the Water Act and to the RBMPs could be modified by the Council of Ministers on a proposal by the Minister of Environment and Water. While the term 'connect' involves a form of mutual obligation (RBMP should conform to other plans and these should conform to RBMP), the second provision clearly gives precedence to RBMPs as it provides for the possibility to amend other plans which are not in conformity with the RBMPs.
CY	Council of Ministers	Governmental Decision	The RBMP is secondary legislation, falling under the laws, issued by the Parliament. It is at the same level as any other regulation approved by the Government and any administrative decision should be in conformity with its provisions.
CZ	National RBMPs ³² : Government Sub-basin management plans ³³ : regions	Issued by the Ministry of Agriculture as "measures of general nature". Issued by the regions as 'measures of general nature'	RBMPs are sectoral plans which have the same rank as plans and programmes in other sectors. They are subordinated to all types of applicable legislation. RBMPs are background documents for the execution of the public administration, especially for land use planning and for water law procedures. Thus, the authorities involved in land use planning or in water law procedures have to take into account the existing RBMPs. The requirement "to take into account" means that the authorities do not have to comply with the RBMPs in case they provide a proper justification for doing so; on the other hand the requirements of RBMP's are expressed in binding assessments of water authorities, that are necessary and binding for all affected procedures. RBMPs

³¹ Only Flanders³² Cover parts of international river basin districts within the Czech Republic³³ Cover the territory of the national sub-basins. The sub-basin management plans complement and develop the national river basin management plans. The sub-basin management plans include inter alia programmes of measures to achieve the objectives determined by the national river basin management plans

MS	Approving authority	Type of act adopting RBMP/PoM	Place in hierarchy of norms and legal status
			<p>themselves do not create rights and obligations for individuals, but are binding for water and town and country planning authorities. Rights and obligations for individuals are created by individual decisions issued, changed or cancelled on the basis of the RBMPs.</p> <p>It should be noted that the legal effect of the existing RBMPs from the first planning cycle was regulated. Both the existing national river basin management plans and the regional river basin management plans have been split into a binding part and a non-binding (recommending) part. The binding parts have been approved and published in the form of a Governmental Regulation; the binding parts of the regional river basin management plans have been approved and issued in the form of Regulations of the regions' councils. These are binding on everybody.</p>
DE	Länder Environment Ministries	Various. Some Länder laws allow the adoption of parts of PoMs as legally binding ordinances if needed.	The German federal water legislation does not specify explicitly the legal nature of RBMPs and PoMs. The same is true for water legislation in most of the Länder. There is consensus, however, that RBMPs and PoMs are binding for the authorities responsible for water management.
DK	Minister of the Environment	Ministerial Order	The RBMP is a planning document of a rank similar to ministerial orders (decrees), i.e. in the hierarchy of legal acts it falls below laws and regulations and cannot contradict them. On the other hand, it stands above administrative decisions.
EE	Government	Governmental orders for RBMPs and Sub-RBMPS (NB: the law also provides for PoMs for each RBD and an Action Plan for the Implementation of the PoMs (in practice there are no PoMs).	In practice RBMPs are approved as an order of government. Orders cannot contradict laws. The RBMPs could be considered general orders provided that they are sufficiently specific to have regulative effect. In practice, environmental plans are often too vague to provide meaningful guidance and therefore should not be considered legal acts but rather as general strategies setting out an overall common vision. The law does not set out general regulation as regards the legal effects of environmental plans beyond the principle that in exercising discretion all relevant facts must be taken into account and all legitimate interests have to be considered.
EL	Secretary General of the Decentralised Administration Authority ³⁴	Decision	RBMPs are adopted by a Decision (Regulatory Administrative Act) of the Secretary General of each of the Decentralised Administration Authorities, i.e., even though their provisions must be observed by other authorities, private parties and the Courts, they are still inferior to the provisions of the Constitution, formal laws as well as other Regulatory Administrative Acts adopted by bodies superior to the Secretary General of the Decentralised Administration Authority, e.g. ministries. Several legal instruments refer directly to the RBMPs and set an obligation of compatibility between certain individual decisions or plans and the RBMP for the relevant river basin district.
ES	Government	Royal Decree	The whole content of the RBMPs is not published as part of the Royal Decree approving them. Only their normative content is considered to be part of the Royal Decree. The RBMPs are binding with regard to their normative content, including environmental objectives. Any administrative acts such as authorisations or concessions in the field of water shall be in accordance with the RBMPs. the relationship between RBMPs and other plans is regulated. However, that regulation only provides for the coordination of the hydrological plans with the sectors planning. The obligation to count with a report issued by the River Basin Authority on the availability of water resources to satisfy the new demands and on the protection of the water

³⁴ Law 3852/2010 'The new architecture of Local Administration and Decentralised Administration – Programme Kallikrates' (Government Gazette A' 87/2010) changed the administrative structure of Greece by dividing the country into seven Decentralised Administration districts (headed by the Decentralised Administration Authorities which are authorities of the central government) and 13 Regions (headed by the Regional Administration Authorities which are elected authorities of the local government).

MS	Approving authority	Type of act adopting RBMP/PoM	Place in hierarchy of norms and legal status
			public domain as part of the procedure for development of land and urban planning places hydrological planning on a higher level than the other plans.
FI	Government	Administrative decision	Administrative decisions (in this case the decision is not a statute but an administrative decision) of the Government must be respected by public authorities. It was a political decision to determine the Government as the approving authority, in order to give water-related needs a balanced treatment and evaluation, and a high ranking to the RBMP. State and municipal authorities shall give due consideration in their operations to the water resources management plans approved by the Government, as appropriate. This means that all authorities, municipalities and other public bodies have to comply with the objectives of the management plan in their own activities (public works and related plans). There is no direct legal effect on other actors.
FR	Coordinating prefect (representatives of the government in regions and districts)	Order	The RBMP is a planning document. In the hierarchy of legal acts, on the one hand, it falls under laws and regulations (decrees). It cannot contradict laws and regulations. On the other hand, it stands above water-related administrative decisions including various planning documents. Besides, it applies only on the river basin scale and therefore cannot modify national-level administrative decisions. Environmental Code stipulates that the administrative programmes and decisions in the field of water must be compatible or made compatible with the provisions of the RBMP. The binding nature of the RBMP derives from an obligation of compatibility, which stands between an obligation of taking into account and an obligation of compliance. It implies that the administrative decision or programme should not contradict the main objectives and provisions of the RBMP. It is not directly binding on individuals but on the administration. Therefore, it is the administrative decision which, for example, authorises an individual action contrary to the RBMP, which can be brought to court.
HU	Government	Decision	The RBMPs are adopted by Government Decisions, which cannot be considered as formal sources of law, as they do not create rights and obligations for individuals, but have legally binding effects only on public authorities. There is no legal instrument that formally regulates the legal effect of the RBMP; its legal effect is a consequence of its nature as a Government Decision. However, legal value is given to the RBMP by other laws that provide direct reference to the RBMP. In particular, the Law on water management stipulates that environmental objectives must be taken into account while planning and carrying out activities that concern the environment
IE	Local authorities	Various	RBMP's are high level strategic planning documents. They are not in themselves legal instruments, though have a statutory basis. The European Communities (Water Policy) Regulations 2003 (SI No 722/2003) places a general duty on every public authority to take such actions as may be appropriate in the context of its functions to secure compliance with the Directive and with the provisions of any river basin management plan made, and any programme of measures established, in accordance with the Regulations.
IT	Uncertain: President of the Council of Ministers (i.e. the Prime Minister) or institutional committees	Uncertain: Decree or decision	The basin plans, and consequently the RBMPs (which are a part of the basin plans), are approved with a Decree of the President of the Council of Ministers. In the hierarchy of legal sources, they are thus below (1) the Constitution and laws of constitutional nature; (2) regional and national laws and acts having the legal force of laws (i.e. legislative decrees and law decrees) but they are above regional, provincial and local regulations. The provisions contained in an approved basin plan have direct binding effect for the public administrations and bodies, as well as for private parties, in case of provisions having such effect according to the basin plan itself. Since RBMPs are parts of the basin plans, the binding legal effect is applicable to RBMPs. According to the

MS	Approving authority	Type of act adopting RBMP/PoM	Place in hierarchy of norms and legal status
			Ministry of Environment, however, Legislative Decree No. 219 of 2010 changes the procedure for the approval of the RBMPs. Its Art. 4(3) states that the institutional committees are approving the RBMPs. ³⁵ According to the Ministry, by this Decree the act of approval by the institutional committees replaces approval by the President of the Council of Ministers. No information has been found, however, to indicate whether or not a separate approval procedure has been undertaken by these committees, in addition to the 2010 adoption procedures.
LT	Government	Resolution	The RBMPs and PoM are planning documents. In the hierarchy of legal acts they fall under regulations. They are approved by legally binding resolutions of the Government and they cannot contradict existing legislation. Practically, the RBMPs and PoM are legally binding documents. The public institutions and municipalities are liable for failure to implement timely programmes related to protection of environment, e.g., failure to implement timely the RBMP or PoM.
LU	Government	Grand-Ducal Regulation	The RBMP must be declared compulsory through a Grand-Ducal Regulation. However this does not mean that the RBMP acquires the legal status of Grand-Ducal Regulation.
LV	Minister of Environment	Ministerial Order	RBMPs and PoMs are planning documents which are approved by resolutions. They are legally binding, but cannot contradict existing laws. As RBMP are approved by the Minister of Environment, they are binding to all institutions subordinated to the Ministry of Environment and have to be taken into account when adopting internal legal acts. However, the plans are not binding to individuals. In other words, it is not possible to refer only to the RBMP in order to adopt administrative acts (decisions issued by state institutions regarding individuals). Any reference to the RBMP in such decisions would be only informative, not legal. However, the RBMP is binding on the administration in performing their tasks and functions.
MT	Ministry of Environment	Decision	The RBMP is a planning document and does not have the status of a law. It is adopted by government authorities (the executive) and not the parliament (the legislature). Nevertheless, it originates from a legal obligation and is instrumental to the fulfilment of EU requirements. It is reasonable to state that water policy should be consistent with the RBMP and it could therefore be seen to have some form of legal value that gives it a higher status than that of other acts of the competent authority such as guidelines and decisions. However, The legal effect of the RBMP is not regulated although the RBMP itself states that it has 'legal value'. It leaves it up to a coordinated and integrated approach being adopted in practice by the competent authorities.
NL	National Parliament	??	The RBMPs are planning documents and form part of the National Water Plan. In the hierarchy of legal acts, on the one hand, it falls under laws and regulations (decrees). It cannot contradict laws and regulations, and has no binding legal nature as such. However, as a national planning document, it is self-binding to the national government, and where needed, local governments are expected to implement it and transpose its provisions in their local planning documents. In cases where the plan seeks to have a legally binding impact, it indicates which legal instruments should be used. However, there is no requirement to review existing individual decisions and planning documents in line with the RBMP.
PL	Council of Ministers	Resolution ³⁶	The RBMPs are adopted by resolution of the Council of Ministers. These are internal acts binding on the authorities and bodies subordinated to that Council. However, the specific provisions of Polish law provide for instances when the RBMPs are binding on other planning acts or individual decisions, namely on the land use plans prepared on the national, regional and local level; regional development plans; water-law permits and EIA decisions. Polish law does not provide for any requirement to review the existing permits/decisions in line with environmental objectives. However, the majority of water-law permits is issued for the

³⁵ Art. 4(3) states that 'the approval of acts of district relevance is undertaken by the institutional committees and technical committees of the river basins of national relevance, integrated by components designated by the regions whose territories are within the basin district'.

³⁶ This relates only to RBMP. The national PoM is not adopted in the form of a legal act.

MS	Approving authority	Type of act adopting RBMP/PoM	Place in hierarchy of norms and legal status
			period of 10 years. This means that after the previous permit expires, the new one will be issued only after stating that it will be in line with the RBMP.
PT	Council of Ministers	Resolution	RBMPs stand at an intermediary level between the National Water Plan (the strategic water management which they implement) and the specific Water Management Plans that include measures to protect and enhance water resources. They cannot contradict national guidelines or decisions as their territorial scope is limited to the river basin and are subject to the relevant applicable laws. The RBMPs establish quality standards appropriate to the various water types and uses and the programme of measures and actions to achieve the environmental objectives by 2015. The quality standards and environmental objectives have therefore a binding effect on the administrative decisions taken by public administration.
RO	Government	Decision	The RBMP was approved by decision of the Romanian Government. According to the Romanian Constitution, the Government adopts decisions to organise the application of laws. Therefore, the Government Decision cannot contradict laws and stands above any acts that may be issued by local administrations. The Water Law lays down that all programmes and administrative decisions related to water need to comply with the content of the RBMP as approved.
SE	Regional Water Authorities, designated by the Government amongst the County Administrative Boards	Decision	RBMPs are information decisions that do not have a legally binding status According to the preparatory work on the PoM and RBMP, the PoMs are comprehensive documents which are binding on the municipalities and authorities. They are administrative decisions without the element of exercise of public authority towards individuals. The Environmental Code stipulates that programmes of measures have a legal effect with regard to environmental quality standards. The stakeholders affected by this are those who pursue, or intend to pursue, an activity or take a measure.
SI	Government	Decree	The RBMP derives its legal effect from the fact that is adopted in the form of a decree. Hierarchically, a decree is below both types of general legal acts adopted by the National Assembly: the Constitution and statutes. Decrees are implementing legal acts with which the government implements the statutes. They are hierarchically above the rules, issued by ministries and local bylaws (ordinances). WMP is thus binding for all legislators when preparing other implementing legislative acts or policy documents. The fact that WMP is adopted by a decree does not automatically give it a direct legal effect in administrative procedures. The direct legal effect of RBMP is regulated in the Water Act, especially in relation to the water rights. The RBMP must be taken into account by administrative decisions having an effect on water. In relation to sectoral plans, the whole RBMP is considered to be an "environmental baseline", i.e. environmental protection objectives "on the basis of which the plans, programmes and other acts in the sectors of spatial planning, water management, forestry, hunting, fisheries, mining, agriculture, energy production, industry, transport (...) are prepared and assessed". In other words, it should be used in the preparation of these plans and programmes and in their environmental assessment.
SK ³⁷	Government	Regulation (PoM and environmental objectives)	The Ministry of Environment endorses the RBMP. The RBMP of the Danube River and the Vistula River are not legally binding documents as they are not published in the Collection of laws of Slovakia. According to Slovak legislation the RBMPs are not official legal acts (i.e. they cannot be classified under any category of legal instruments according to the law). The Government of Slovakia approves the Water Plan of Slovakia by means of Governmental Regulation. The PoM which is a part of Water Plan of Slovakia is issued by Governmental Decision. The Slovak Water Plan, once endorsed by the government, shall be published in the National Collection of Laws as the Governmental Regulation. However, the quality of Governmental Regulation applies only to the Programme of Measures and the environmental objectives. Only this part of the Water Plan is published and mandatory.
UK	• The Secretary of State	Various devolved	RBMPs are high level strategic planning documents. They are not in themselves legal instruments but they are statutory

³⁷ This relates only to the PoM and environmental objectives as set in the National Water Plan, but not to the RBMPs (see next table for more explanations).

MS	Approving authority	Type of act adopting RBMP/PoM	Place in hierarchy of norms and legal status
	<p>in England</p> <ul style="list-style-type: none"> • The Welsh Assembly in Wales • The Scottish Ministers in Scotland • The Government in Northern Ireland 	authorities	documents. Once the plan has been approved, the Environment Agency must exercise its permitting and licensing functions so as to secure the objectives contained in the plans in order to comply with the legislation which places a general duty on the appropriate authority and the EA to exercise their “relevant functions” so as to secure compliance with the requirements of the Directive, and (in relation to the appropriate authorities), to secure that the requirements of the Directive for the achievement of its environmental objectives, and in particular programme of measures, are coordinated for the whole of the RBD. It also requires the competent authorities, the EA and all public bodies to “have regard” to the RBMP in exercising their functions, “so far as affecting a river basin district”. Public bodies are any civil servant or institution created and financed by the State or other body exercising statutory functions.

In three countries, France, Greece and Sweden, decentralised regional administration, that is the regional branches of the central administration, is responsible for adopting the RBMP. Only in Ireland, the local authorities are responsible for approving the RBMP, under the responsibility of one coordinating local authority. However, in this case, the RBMP legal effect is set in the legislation as The European Communities (Water Policy) Regulations 2003 (SI No 722/2003) places a general duty on every public authority to take such actions as may be appropriate in the context of its functions to secure compliance with the provisions of any river basin management plan made, and any programme of measures established, in accordance with the Regulations. The Netherlands is the only Member State where the RBMP is adopted by the Parliament, the national legislative assembly. Finally, in the UK, the devolved administration is responsible for adopting the RBMPs, at a high level of government or the parliamentary assembly in the case of Wales.

An important point is that, as the RBMP's geographical scope is restricted to a part of the territory, the river basin, it has usually to comply with national level legislation and strategic documents. One exception is Austria where there is only one RBMP, approved at the Federal level, and binding on the whole territory. The legal effect of the RBMP/PoM would typically be direct on administrative authorities. This applies primarily to those authorities with water-related functions e.g. permitting, although, as mentioned above, given that the RBMP/PoM is often adopted at governmental level, it can be argued in this case that it imposes upon all ministries and administrative authorities. This is important when considering that many other ministries/authorities are involved in the implementation of the WFD, e.g. authorities in charge of agriculture. With regard to other stakeholders, and notably, water users, the RBMP/PoM has only an indirect effect through individual decisions issued by the administrative authorities and which create rights and obligations for individual water users. The administrative decision granting a permit or approving a programme could be challenged in court if contrary to the RBMP. However, it appears from the national studies that case law on the effect of RBMP/PoM is still very limited. This is certainly due to the fact that the RBMP/PoM is a relatively new institution in many Member States. When the national studies have identified case law, the court's decisions generally confirmed the legal effect of the RBMP/PoM.

Examples of national case-law on the legal force of RBMPs

Austria

The Administrative Court (VwGH) (Decision of 28 January 2010, 2009/07/0038) confirmed that the RBMP shall be the basis of a permit for a hydropower installation. It should be noted that in this case the RBMP existed only as a draft; nevertheless, the authority justified its decision already on the basis of this draft. It emphasised the obligation of the Member States to interpret its law in the light of EU, here in particular the Water Framework Directive. The VwGH confirmed the decision of the authority.

Belgium

This has been confirmed by a decision of the Belgian Constitutional Court which stated that authorities must take the relevant water management plans into consideration in evaluating a programme, measure or permit, and that the authorities' decision must be motivated at least in assessing the objectives and principles of an integrated water policy.³⁸ The Decision related to some provisions of the Decree on Integrated Water Policy including Article 8 on subjecting the granting of a permit or the approval of a plan or programme to imposing conditions to avoid or limit negative effects on water, and if not possible, imposing compensation and, as a last resort, to reject the permit or the plan/programme. In this instance, the Court clearly considered that

Finland

In Finland the Vaasa Regional Administrative Court explicitly stated that the emissions of peat production, considering the

³⁸ Constitutional Court decision 32/2005 of 9 February 2005

limit values of the permit, would not achieve the objectives of the regional RBMP (12/0004/1/9.1.2012.). Non-compliance or an error in the estimates used for setting the permit conditions may lead to the review of the permit.

France

In France, the court considered that the impact declaration (notice d'impact) should have justified the compatibility of the installation with the rules established by the RBMP relating to renewal of authorisations for micro hydropower stations, and in particular, the closure of obsolete installations (CAA Nantes, 26 December 2002, SARL 'Au fil de la Vire', N°01NT00282). Similarly, the decision not to grant an authorisation for a hydropower installation was found legitimate in relation to a RBMP, which stated as a key guiding principle the control of pressures from usage to preserve the strong potential of water courses (for fishing), including by prohibiting hydropower (CAA Lyon, 16 February 2006, Société hydroélectrique de Francin, n°00LY01172).

Finally, although it does not influence directly the legal status as such of the RBMP, the existence of formal mechanisms for consultation/involvement of stakeholders in the preparation and adoption/review as well as the implementation of the plan, in addition to the requirements of the Directive, can constitute a factor of recognition and buy-in of the RBMP. Such stakeholders included local authorities and users (i.e. industry and agriculture). Table 28 specifies whether the Member State has set up structures for the involvement of local authorities and water users in the preparation and implementation of the RBMP or not. Where relevant, it describes briefly the mechanisms put in place and the stakeholders involved.

Table 28 Stakeholders' involvement in the development of RBMP

MS	Y/N	Description of mechanism	Stakeholders involved
AT	No		
BE ³⁹	Yes	Involvement through participation to the Integrated Water Policy Coordination Commission (CIW)	Flemish Region administrations and public entities competent for (i) environment, nature and energy, (ii) mobility and public works, (iii) planning, agriculture and fisheries (on an advisory basis), (iv) economy, science and innovation (on an advisory basis), as well as local water boards and water companies
BG	Yes	Basin Councils Supreme Advisory Water Board established by the Ministry of Environment and Water	Basin Councils: State and local administration, the water users and not-for-profit legal entities within the scope of the RB and research organisations Supreme Advisory Water Board: other ministries, Academy of Sciences, municipalities, not-for-profit legal entities directly involved in water issues
CY	Yes	Central and District Groups of stakeholders	Major consumers / users / administrators of water of each District
CZ	Yes	Central committee for water management planning	Central water authorities (Ministry of Agriculture, Ministry of Environment), regions, river basin management companies and water flow managers, important users of water and NGOs
DE	Yes	Apart from general obligation to involve stakeholders set at the Federal level, the Länder implemented further measures to promote stakeholder consultation e.g. through working groups and collaboration with already established forums of cooperation.	Various
DK	No	Mechanisms for consultation/involvement of stakeholders are provided in Environmental Objectives Act, in the preparation and review of the plan, through general public consultation, rather than through a formal mechanism.	Local authorities, users such as industry and agriculture.

³⁹ Only Flanders

MS	Y/N	Description of mechanism	Stakeholders involved
EE	Yes	Water act provides for a general requirement for consultation/involvement of stakeholders. In practice, involvement occurs through workshops and the Water Management Committee, established by the MoE	County governments; local municipalities and inhabitants situated in RBD.
EL	No		
ES	Yes	Through the District Water Councils (Council for the Sustainable Use of Water in Catalonia) and the National Water Council	National Council: Spanish State, Autonomous Communities, municipalities, main professional and economic organizations involved in water use, most relevant trade unions and business organisations at the State level and environmental NGOs District Water Councils: traditional water users and representatives of the national and regional administration
FI	Yes	Involvement is ensured through planning cooperation groups set up by each regional administration. They are nominated for six years and their composition is quite broad.	Authorities, businesses, civil organisations, associations and research institutions, owners of watercourses and private users, nature conservation and fishery organisations.
FR	Yes	Through the Basin Committees - often designated as the 'local water parliaments' – in the adoption of the SDAGE. A Basin Committee is established in each basin or group of basins and is responsible for developing and updating the SDAGE and following-up its implementation.	Devolved regional and local authorities, water users, socio-professional organisations, registered environmental and consumers NGOs, organisations representing fisheries and qualified persons, representatives from the State or its relevant public establishments.
HU	Yes	Through the National Water Management Council, which is a body involved in the preparation of the RBMP.	Local authorities and users (e.g. Chamber of Commerce and Industry and Chamber of Agriculture)
IE	Yes	Through River Basin District Advisory Councils which include representatives from local authorities and stakeholder groups and SWAN (Sustainable Water Network), an umbrella network of 25 of Ireland's leading national and local environmental organisations specifically constituted to address public participation requirements of the WFD. The RBMP's were also considered by a River Basin Management Group which facilitates information exchange, consultation, cooperation and liaison within and between Ireland's public authorities.	Local authorities (County and City Councils), agriculture, industry and non-governmental organisations through the RBD Advisory Councils and public authorities through a River Basin Management Group.
IT	No		
LT	Yes	River Basin District Coordination Councils, which coordinate state and local authorities, water users, relevant non-governmental organisations and public interest in the preparation, modification and implementation of RBMPs and PoM.	Different ministries and agencies, relevant municipalities, NGOs, industry, agriculture, hydrology
LU	Yes	Through thematic working groups.	Labour Unions and associations involved in the management of water, stakeholders from the agricultural sector, environmental NGOs, and scientific institutes
LV	Yes	Law provides for a Water Basin Region Advisory Board which coordinates interests of ministries, other institutions, local governments and NGOs on achievement of environmental quality objectives in RBDs.	Ministries; Members of regional development boards in each RBD; local governments; NGOs/organisations acting in field of environmental protection or protecting interests of suppliers of water resources; water managers, water owners.
MT	No		

MS	Y/N	Description of mechanism	Stakeholders involved
NL	Yes	For each of the RBMPs, so-called regional stakeholder groups (“klankbordgroepen”) were officially established, in order to structurally engage and involve them in the preparation of the RBMPs. Each RBMP contains a short description of this process. There is no formal requirement to maintain these stakeholder groups during the implementation phase of the RBMPs, but it can be expected their work will continue.	Representatives of industry, civil society, and government
PL	No		
PT	No	In practice through the River Basin District Councils (RBDC) set in each RBD. They are an advisory body of the River Basin District Administrations.	Ministries and other bodies of public administration, municipalities, main water users (including agriculture, fisheries, tourism), technical and scientific organisations and NGOs.
RO	No	The consultation process is conducted through River Basin Committees meetings, mass-media debates, and publication of the draft RBMP on the websites of the River Basin Administrations. However, there is no additional specific mechanism in legislation other than the public participation provided for in the Directive.	Local authorities, local industry and agriculture representatives, research institutes, water users, NGOs etc.
SE	No	No provision in the law. In practice, through local collaborative bodies, the water councils. Any organisation with an interest and experience in water issues can take the initiative to call for the creation of a water council.	Authorities, municipalities, organisations, operators and individuals
SI	Yes	Through Water Conferences and Councils set for each river basin.	Municipalities, holders of water rights (note that some water users are not represented if they do not need a water right) and NGOs.
SK	No	There is no additional specific mechanism in legislation other than the public participation provided for in the Directive.	Public, users of water, self governing regional authorities, municipalities and state authorities concerned but without additional mechanism in practice.
UK	Yes	The legislation requires the Environment Agency to consult a list of specific persons as part of the preparation process. In addition, the Environmental Agency liaises with the National Liaison Panel (at national level) and River Basin Management Liaison Panels (at the level of RBD). The National Liaison Panel for England advises the Environment Agency on the general implementation of the Water Framework Directive. It consists of around 20 key co-deliverers, i.e. organisations responsible for carrying out actions, and others who can both represent the public and help drive changes in behaviour. ⁴⁰ The River Basin Liaison Panels set the strategic overview for river basin planning and agree the measures for improvement in each RBD.	In the National Liaison Panel, industry representatives include the Confederation of British Industry (CBI), Water UK and the National Farmers Union (NFU). River Basin Liaison Panel: include representatives of statutory and civil society conservation organisations, landowners and farmers, regional water companies and local authorities.

It should be noted that, in most cases, the involvement of stakeholders and in particular local authorities, industry and agriculture, is mainly limited to the stage of the RBMP development, rather than to implementation. In 10 countries, there is no requirements for public participation beyond those set in the Directive, Article 14, which requires Member States to publish and make available for comments to the public, including users, and in relation to the development of the first RBMPs

⁴⁰ A list of members for England can be viewed at <http://www.environment.agency.gov.uk/research/planning/40213.aspx>

and the six-yearly up-dating of those, respectively three, two and one year before the beginning of the period to which the plan refers:

- a timetable and work programme for the production of the plan;
- an interim overview of the significant water management issues identified in the river basin;
- draft copies of the river basin management plan.

In addition, the Directive ensures access to background documents and information on request. The Member States are required to set a consultation period of at least six months during which the public can comment in writing on the documents made available.

The 17 remaining countries are providing for additional mechanisms for public participation, targeting specifically key stakeholders, water users and other authorities. This allows to have a more structured and regular process of consultation, involving the main stakeholders in a more pro-active manner. Such structures are set at national level e.g. the National Water Management Council in Hungary or river basin level e.g. water conferences and councils in Slovenia or Basin Committees in France, or both, for example in the UK, such consultation is organised between the Environmental Protection Agency and the National Liaison Panel (at national level) and River Basin Management Liaison Panels (at the level of RBD).

10.2 The legal effect of RBMPs

In addition to the overall legal status of the RBMPs, the actual legal effect of the RBMPs on other individual decisions such as authorisations, or planning documents is often specifically regulated through national legislation. This section analysed the relationship of RBMPs with other individual decision and planning documents.

10.2.1 Relationship with other individual decisions

National legislation and general principles of law govern the relationships with other individual decision, in other words whether the RBMPs and their environmental objectives have a binding effect (or other 'legal effect') on other individual decisions and, if yes, on which sectors/stakeholders (e.g. other authorities or third parties). It should be noted that, in certain cases, the environmental objectives may have a different legal status compared to the remaining provisions of the RBMP. However, this is the case only in Poland and only through provisions on the effect of RBMP on specific decisions/plans where the legislation uses alternatively the term 'RBMP' or 'environmental objectives'. In Spain also, there is a differentiation between the normative part of the RBMP, including the environmental objectives, and the PoM of which only a summary is approved by the Royal Decree approving the RBMP.

Table 29 below synthesises the information collected in Member States on the relationship between RBMPs and individual decisions, in general.

Table 29 Relationship of the RBMP with individual decisions

	Comments	Stakeholders bound	Differentiation env. obj./PoMs
AT	The legislation stipulates that decisions must be in compliance with the RBMP, including the environmental objectives and the PoMs. The CAs must revise or withdraw water-related permit decisions, if projects fail to comply with the public interest, incl. the environmental objectives. In line with the WFD, CAs must revise the permits, if the water monitoring indicates that the environmental objectives will not be reached.	Permitting authorities	No
BE ⁴¹	The Decree stipulates that where it appears that the environmental objectives for water bodies will not be met, the Flemish Government ensures that the relevant permits and authorisations are examined and subject to revision if necessary, in line with the WFD.	Permitting authorities	No
BG	The administration, when taking relevant decisions related to water issues, should conform to the RBMPs. There is no specific provision on the binding effect on third parties, but, when permits (for water abstraction and water body use) are issued, a general obligation to take into account (for water bodies use) and conform (for permits). Consequently, there is an indirect binding effect for permit users. No explicit provision requiring the review of existing permits in line with environmental objectives, nor there is a timing specified.	Permitting authorities	No
CY	There is no provision in the legislation regulating the relationship between the RBMP and individual decisions. Nevertheless, the RBMP constitutes in fact the actual implementation of the legislation on water resources and therefore, any permit must comply with this legislation and with any other provision (for example limit values, prohibitions, etc.) directly or indirectly connected to water resources.	Permitting authorities	No
CZ	Existing RBMPs in the first planning cycle, the environmental objectives and PoMs are included in the binding parts of the RBMPs, and thus binding on everyone. RBMPs which are being prepared for the second planning cycle are formally not binding. However, the environmental objectives adopted in them are materially binding on the authorities which have to apply the objectives as a minimum standard to new decisions. Besides, they should change or cancel old decisions which are not in line with those objectives.	Permitting authorities	No
DE	There is a general consensus that RBMPs/PoMs are binding for the authorities responsible for water management. The provisions of RBMPs/PoMs have for example, specific determining effects as regards the management discretion of authorities when they decide on water use permits. Authorities may also invoke them to interpret and specify broad legal notions e.g. 'adverse changes to waters'. At the Federal level, the legal effect is not regulated. At the Länder level it is partly regulated. In Schleswig Holstein, the MoE may declare the entire or parts of RBMPs/PoMs legally binding for all authorities. In North-Rhine Westphalia RBMPs/PoMs are legally binding for the relevant parts of the river basins in relation to all administrative decisions. In other Länder the legal effect of the RBMP is not regulated.	Permitting authorities	No
DK	The RBMP is binding for national, regional and local authorities. Authorities need to take into account and ensure compliance with RBMP objectives/provisions in the exercise of their powers. It is not binding on individual persons i.e. operators, water users, etc. The obligation of compatibility applies to the RBMP in its entirety.	Administration	No
EE	The RBMP has a legal effect as it complements the Water Act and also due to the principle that all relevant facts and interests have to be taken into consideration in exercising discretion e.g. when granting a permit. Beyond that the legal effect of the RBMPs is contentious. The effect depends on the legal nature of the RBMP, which in turn depends partly on its detail of regulation. It seems that the plans do not have any significant effect on individual decisions in practice and that the RBMPs are conceived as some type of strategy documents (not legal acts), which cannot limit discretion. In line with the WFD, the Water Act provides that if environmental objectives are unlikely to be achieved then emission and environmental quality limit values set out in the water permit should be reviewed.	Permitting authorities	Unknown
EL	The Greek competent authorities have not adopted any RBMPs yet. The Law on Water states that permits for the use and exploitation of water resources as well as activities for the protection of water resources from wastewater are subject to a permit, awarded after verifying the availability of the water resources as well as the compatibility of the permit with the RBMP/PoM. Furthermore, the legal nature of RBMPs as Regulatory Administrative	Permitting authorities and citizens	No

⁴¹ Only Flanders

	Comments	Stakeholders bound	Differentiation env. obj./PoMs
	Acts issued by the Decentralised Administration Authorities obliges other authorities and third parties to comply with their provisions. There is no legal requirement to review existing permits in line with the environmental objectives.		
ES	The legislation requires that administrative resolutions in the field of water must be in accordance with the RBMPs, including the environmental objectives (obligation of conformity). Such resolutions would include hydropower installations, abstractions for agriculture and industrial installations. This obligation applies also to existing authorisations and concessions.	Competent authorities	Yes
FI	Pursuant to the Water Act, an application shall indicate that the RBMP has been taken into account and the permit authority “explains” how this is done. The permit rules of the Water Act do not refer to e.g. the objectives of the RBMP as a ground for rejection of an application. Their relevance is indirect. In most cases, it seems that the RBMP serves as a source of information for the interpretation of impacts as these are relevant for the application of binding permit rules. In practice, the RBMP has mainly an impact on permit conditions in relation to supervision, control, measurements and review of permits. The rejection of a permit has to be formally based on legal provisions, and never on planning instruments alone but RBMP may provide information for interpreting those legal rules and permits under the Environmental Protection Act.	Permitting authorities	
FR	The Environmental Code requires that administrative decisions in the field of water must be compatible or made compatible with the provisions of the RBMP, in particular the environmental objectives. Such decisions would include permitting for industrial installations, hydropower concessions as well as authorisation for abstraction for agriculture. This obligation applies also to existing permit/concession. However, there is no timeline specified for making compatible the individual permitting decisions.	Permitting authorities	No
HU	The RBMP calls for the revision of legislation applicable to permitting procedures, in order to make sure that existing and new installations comply with the environmental objectives of the WFD. The RBMP considers the revision of the legislation applicable to permitting procedures as a necessary step for its implementation. The RBMP also calls for the revision of existing permits, without specifying a timeline. Legislation applicable to the permitting procedures does not contain a time-frame for the revision of existing permits. Finally, the RBMP does not refer to any circumstances that could trigger the review of permitting procedures.	Permitting authorities	No
IE	The law places a general duty on every public authority to take such actions as may be appropriate in the context of its functions to secure compliance with the WFD and the provisions of any RBMP/PoM. Beside, regulations on surface and ground water place a legal obligation on public authorities to aim achieving those objectives in the context of their statutory functions, e.g. they require the relevant authorities to review all pollutant discharge authorisations to take account of the objectives established in RBMP.	Permitting authorities	No
IT	The RBMP is binding on public administration, which would suggest that it must respect its content from the moment it is approved when granting permits and issuing other administrative decisions. However, there is no explicit provision requiring to <i>review</i> the existing permits/concessions in line with the environmental objectives set out in the RBMPs.	Permitting authorities	No
LT	The legislation sets out only general obligations for the compatibility of individual decisions with the environmental objectives. This is ensured through the effect assessment of draft individual decisions, which covers <i>i.a.</i> an assessment of how a proposed individual decision will affect water, ecosystems, nature, etc., implying that draft individual decisions, programs, contracts and negotiating positions must be also compatible with the RBMP/PoM. But there is no explicit provision requiring that existing permit to be reviewed in line with environmental objectives.	Permitting authorities	No
LU	The Law on Water contains an explicit provision requiring review of the existing permit/concession in line with the environmental objectives. It provides that RBMPs are declared compulsory by the Grand-Ducal Regulation. Therefore RBMP measures are binding requirements.	Permitting authorities	No
LV	The State Environmental Service shall supervise the implementation of the programme of measures and review the conditions of the issued permits, taking into account RBMP and PoM. This is a general provision providing that permits may be reviewed on the basis of programme of measures. As the PoM according to the national legislation is included in the RBMP, this part of RBMP becomes binding on permitting decisions.	Permitting authorities	Unknown
MT	The relationship between the RBMP (environmental objectives) and other individual decisions is as a rule not regulated. There are no legal provisions that would ensure that timelines for the revision of permits are aligned with the revision of the RBMP. The fact that the relevant authorities and	-	-

	Comments	Stakeholders bound	Differentiation env. obj./PoMs
	stakeholders involved in the implementation of the RBMP and decisions in other sectors such as industrial installations are the same could ensure that these are in line with the environmental objectives in practice. This however is not a sufficient guarantee.		
NL	The relationship is not set in specific legal provisions. It rather stems from the general system of permitting and the links between different decisions and plans. The environmental objectives are incorporated in the Decree on the quality requirements and monitoring of water, which stipulates that, in adopting the water management plan and the provincial water or spatial plan, the water management authorities and the provinces, respectively, take the environmental quality requirements of the WFD into account. With regards to the environmental quality standards that need to be considered for the permit, the legislation refers to the National Waterplan (of which the RBMPs are a part).	Permitting authorities	No
PL	The legislation states that the CA shall refuse the water-law permit in case when it violates the RBMP (and not only the “environmental objectives”). The same rule applies to EIA decision when the EIA procedure shows that the project may jeopardize the achievement of the environmental objectives set by the RBMP (thus, in this case only the environmental objectives and not the entire RBMP are mentioned).	Permitting authorities	Yes (partly)
PT	The Water Law establishes that a list of various water-related activities which require a previous license and are specifically subject to the RBMPs. Compliance with the provisions of the RBMPs is one of the conditions for attribution of the right to use water. In accordance with the legal regime for water uses the competent authority may temporarily modify the titles for water use (license or concession) whenever required to ensure their compliance with the RBMPs.	Competent authorities	No
RO	The Water Law regulates the effect of the environmental objectives set out in the RBMP. Since all programmes and administrative decisions need to be in accordance with the RBMP, the environmental objectives laid therein have a binding effect on authorities responsible for developing programmes or issuing administrative decisions and on water users which implement the provisions of the RBMP/PoM.	Administration and water users	No
SE	Each of the respective PoM refers to the generational environmental objectives (incl. environmental objectives for water), which are adopted by the government. These objectives serve as a guideline and are not binding. However, the municipal authorities are required to work towards their achievement. The water authorities’ PoMs, together with the EQS, become complementary policies for the relevant authorities and municipalities. The control is still at the administrative level because the water authorities have no legal mandate to decide on actions taken by individuals (operators, the public, organisations, etc.). It is still central and regional authorities and municipalities that are responsible for the enforcement of environmental law, but in accordance with the priorities for water quality issues established by the water authorities.	Competent authorities	Yes
SI	The direct legal effect of RBMP is regulated in the Water Act, especially in relation to water rights. Administrative decisions having an effect on water must take into account the RBMP. The adoption of a new RBMP may set new criteria for the special use of water. The existing water rights may thus have to be amended accordingly. The Ministry must change ex officio the water permit if "the prescribed criteria for the use of water have changed". Likewise, the concession must be changed "if the prescribed conditions for the use of water or alluvium have changed" or if "this is required in the public interest of water protection". Any part of the RBMP which can be interpreted as a clearly written norm and implemented in the administrative procedure, also has a direct legal effect. However, the environmental objectives do not seem to be formulated in such a way they could be used as a basis for decision-making in administrative procedures.	Competent authorities	No
SK	The Slovak Water Plan contains the PoM which is specifically endorsed by the Government and has a binding effect. It is published in the collection of laws as a generally binding Governmental Regulation. The environmental objectives are also included in the published part of the Slovak Water Plan and are therefore considered as a generally binding legal regulation. The quality of Governmental Regulation applies only to the PoM and the environmental objectives and therefore only these parts are published and mandatory. The State authorities are obliged to relate, inter-alia, to take into account the RBMP and the Slovak Water Plan while issuing permits for special water use, granting consents and other decisions.	Competent authorities, third parties	No
UK	The requirement under water legislation for appropriate authorities, the Environmental Agency and relevant public bodies to “have regard” to the RBMP will be binding on individual permitting decisions to the extent that such decisions affect a river basin district.	Competent authorities	No

Apart from Malta, in all Member States, the RBMP/PoM has, in one way or another, a legal effect on individual decisions, namely permitting of activities having an impact on water resources. However, there is some form of gradation as to the extent the RBMP is 'binding', as reflected in the different way the legal requirement is formulated or deriving from the legal nature of the RBMP: take into account, have regard to, be compatible, be in conformity, etc. Without defining a precise typology, the legal effect of the RBMP can be distinguished according to the following broad categories (and in relation to individual administrative decisions only):

- Administrative decisions related to water should 'take into account' the RBMP (which can be worded as 'have regard'): this obligation is rather vague. It has been interpreted in some countries as the obligation not to contradict the RBMP without clear justification. In Finland, the authorities must explain how the RBMP has been taken into account. However, the rejection of a permit could not be based on the RBMP only but on legal requirements. In Germany, RBMP would be used to interpret and specify vague legal notions e.g. 'adverse changes to water'. This is the type of formulation found in BE FL, CZ, DE, HU, IE, FI, LT, SE, SI, SK, UK.
- Administrative decisions related to water should conform to or be compatible with the RBMP (sometimes worded as 'be in compliance'): the obligation implies that the administrative decisions cannot contradict the RBMP. For example, in Poland, a water-related permit should not be granted if it contradicts the RBMP. Such approach is followed by AU, BG, DK, EL, ES, FR, PL, PT, RO.

There is no specific provision on status and the RBMP is rather considered as a general planning document with limited legal effect: in such cases, it is mainly left to the approach that will be adopted in practice by the Competent Authorities. In some countries, despite the absence of legal provision, the RBMP will be taken into account in the permitting process, while in others, it is likely that this will seldom be the case. CY, EE, HU, IT, LT, LU, LV, MT, NL have no specific provision on the legal status of RBMP.

The relationship between RBMPs (environmental objectives) and other individual permitting decisions should also be considered in relation to specific types of permitting decisions, and this, taking into account:

- the legal effect of the RBMP;
- whether there is an explicit provision requiring to review the existing permits/concession in line with environmental objectives or not; and
- how the timeline for revision are aligned with the required six yearly reviews of the RBMPs, and any specific circumstances triggering this review.

These different elements are described in Table 30, which reviews the relationship of RBMP with three specific areas, as follows:

- concessions/permits for hydropower installations,
- authorisations/permits for abstraction for agriculture, and,
- IPPC and other industrial installations permits.

Table 30 Relationship with specific permits/concessions

	Effect			Explicit provision on review			Alignment of timeline		
	Hydropower	Agriculture	Industry	Hydropower	Agriculture	Industry	Hydropower	Agriculture	Industry
AT	✓	✓	✓	✓	✓	✓			
BE ⁴²	✓		✓						
BG		✓	✓		✓			✓	
CY	✓	✓	✓						
CZ	✓	✓	✓						
DE ⁴³	✓	✓	✓	-	-	-	-	-	-
DK	✓	✓	✓	✓			✓		
EE	✓	✓	✓						
EL	✓	✓	✓		✓	✓			
ES	✓	✓	✓	✓	✓	✓			
FR	✓	✓	✓	✓	✓	✓		✓	
FI	✓	✓	✓						
HU	✓	✓	✓						
IE			✓			✓			✓
IT	✓	✓	✓						
LT	✓	✓	✓	✓	✓	✓			
LU	✓		✓	✓		✓			
LV	✓	✓	✓						
MT									
NL	✓	✓	✓	✓		✓			
PL	✓	✓	✓						
PT	✓	✓	✓	✓	✓	✓			
RO	✓	✓	✓	✓	✓	✓	✓	✓	✓
SE ⁴⁴	✓	✓	✓	✓	✓	✓			
SI	✓	✓	✓	✓	✓	✓			
SK	✓	✓	✓						
UK	✓	✓	✓	✓	✓	✓			

In nearly all Member States, the RBMPs have a legal effect on permits in key economic sectors. This is the case in particular for industry, where it is seen in 26 Member States, compared to 24 for hydropower and 23 for agriculture.

However, on the whole, the effect of RBMPs on hydropower and water abstraction for agriculture is often not specifically regulated. In only 13 Member States for industry permits, and slightly less for hydropower and agriculture (Germany, where the situation varies from Land to Land, is not counted), there is an explicit provision to review existing permits and concessions in line with the environmental objectives of the RBMPs. The link with permitting for industrial installations is more often covered by legislation albeit a specific obligation to review the permits in light of the RBMP and an alignment of the timeline is very rarely included in legislation. The legislation provides for an alignment of the timelines for permits revision with the six-yearly reviews of the RBMPs and the existence of specific circumstances triggering this review in very few Member States: Romania for all three sectors under consideration; Denmark for hydropower (though this is not an important sector in Denmark); Bulgaria and France for agriculture; Ireland for industry.

⁴² Only Flanders

⁴³ In Germany, the situation varies from one Länd to another. While there is an obligation to conform to the environmental objectives as set in the RBMP when granting permits, there is no explicit provision on revision and alignment of timeline.

⁴⁴ This relates only to PoMs and EQS.

In some countries, general provisions on EIA, permitting and planning imply, on the basis of the legal status of the decision approving the RBMP and PoM, that permits and concessions are to be made compatible with those. This is reinforced by the fact that the same authority is responsible for approving the RBMP and/or implementing the RBMP/PoM and granting permit. For example, in Lithuania, the regional environmental protection departments are responsible for issuance / updating of IPPC and non-IPPC permits and for coordination of measures implementing the RBMPs and PoM. Thus, they are responsible for making compatible water aspects of authorisations and control whether IPPC or non-IPPC permits support the achievement of the environmental objectives, i.e., support implementation of the RBMPs and PoM. In addition, the PoM themselves include measures requiring competent authorities to amend the IPPC Rules in order to support the implementation of the RBMPs and PoM. In Hungary and Italy, the obligation of compatibility or taking into account the RBMP derives from the legal nature of the decision approving the RBMP.

In contrast, some countries have adopted specific provisions on the relationship between individual decisions and the RBMP. In Romania, the technical dossier/documents for obtaining a permit/licence for the activities/water works listed in the Law on Water should take account of the provisions of the RBMP. Examples of such activities/water works are the construction of dams or hydropower installations. Also, administrative decisions in the field of water – such as any permitting/licence decision – must be compatible or made compatible with the provisions of the RBMP. There is even explicit provision requiring review of the existing permit/concession in line with environmental objectives of the RBMP or with its six yearly reviews.

In Ireland, the legislation⁴⁵ requires the relevant authorities to review all existing authorisations and to take account of the objectives established in river basin management plans. In each case, public authorities are required as soon as may be practicable, but not later than 22 December 2012 to examine the terms of every authorisation and determine whether, having regard to the requirements of the Regulations, the authorisation requires to be reviewed. If the authorisation is required to be reviewed, this was to be completed by 22 December 2012. If the authorisation does not require to be reviewed and accordingly, no further action is required, the public authority is required to declare in writing that this is the case. Thereafter, a public authority is required from time to time to carry out such further examination, and where necessary review authorisations as may be necessary to ensure compliance with the Regulations.

Austrian legislation includes several provisions to ensure that individual decisions are compatible or made compatible with the RBMP in general and the environmental objectives in particular. This requirement has been further reinforced by case law, in relation to permits for hydropower installations. A decision of the Administrative Court of 28 January 2010, 2009/07/0038 confirmed that the RBMP shall be the basis for such a permit. It should be noted that in this case the RBMP existed only as a draft; nevertheless, the authority justified its decision already on the basis of this draft.

The legal effect can take different forms. The Flemish Decree on integrated water policy provides that authorities must 'take into account' the established RBMPs in their decision-making. This applies to hydropower and industry. Authorities' decisions must be motivated in this respect and

⁴⁵ Regulation 11 of the European Communities Environmental Objectives (Surface Waters) Regulations 2009 (S.I. No. 272 of 2009) and Regulation 12 of the European Communities Environmental Objectives (Groundwater) Regulations 2010 (S.I. No. 9 of 2010)

must take into consideration relevant set objectives. This has been confirmed by a decision of the Belgian Constitutional Court which stated that authorities must take the relevant water management plans into consideration in evaluating a programme, measure or permit.⁴⁶ In Denmark, administrative decisions in the field of water must be compatible or made compatible with the provisions of the RBMP in particular the environmental objectives and the PoM. Such decisions would include permitting for industrial installations, as well as authorisation for abstraction for agriculture. However, there is neither explicit provision on review, nor alignment of timeline.

In Germany, the competent authority must reject a permit for water use if otherwise adverse changes to water bodies cannot be avoided or other requirements of federal or Länder laws are not met. Hence, the competent authority must not grant a permit if the water use would endanger the environmental objectives as specified in RBMPs. The Law leaves it to the discretionary power of the competent authorities to set supplementary conditions before and after the granting of a permit for water use and stipulates to set such conditions if they are necessary for the implementation of a PoM. However, In general, the Federal and the Länder water management acts do not set deadlines for the review of existing permits for water use or installations.

An interesting approach is the one taken by Finland where the permit rules require that the authority declares to what extent or how the objectives of the RBMP have been taken into account. Conversely, that obligation implies that the permit authorities study the content and the requirements of the RBMP both in relation to the legal granting conditions of a permit and to the detailed permit descriptions.

In France, the Environmental Code requires that administrative decisions in the field of water must be compatible or made compatible with the provisions of the RBMP, in particular the environmental objectives. Such decisions would include all permitting decisions both for classified installations and other industrial installations, natural risk prevention plans including for flooding, abstraction for agriculture and hydropower concessions. The Environmental Code does not set a deadline for making compatible an administrative decision with the RBMP if it is not the case. However, it should be noted that with regard to hydropower installations subject to concession, a large number of concessions are currently being renewed as part of a large plan to develop hydropower. The Order of 23 December 2008 defining the application dossier for concession requires that the application includes the elements allowing to assess the compatibility of the project with the RBMP and the environmental objectives. The first calls for the renewal of the concessions were due end of 2011. The renewal of the main hydropower concessions should take place until 2020 in different stages. In the case of abstraction permits, the Environmental Code specifies that abstraction subject to pluri-annual authorisation should be compatible with the key guiding principles and water quality and quantity objectives set by the RBMP. It further requires that, in case the RBMP is revised, the single authorisation is modified, if necessary, to be made compatible with the new provisions of the RBMP. Therefore, in the case of abstraction for agriculture, the timeline for revision is aligned with the required 6 yearly reviews of the RBMPs.

Several Member States provide for specific measures in case it appears that the environmental objectives will not be met. For example, in Germany, if on the basis of the monitoring or other findings the competent authorities come to the result that the environmental objectives cannot be

⁴⁶ Constitutional Court decision 32/2005 of 9 February 2005

reached, they must analyse the reasons. In addition, the permits for water use and monitoring programmes must be reassessed and, if necessary, adapted. Furthermore, additional measures have to be introduced into the programmes of measures.

3.2.1. Relationship with other sectoral policy plans

This section describes the relationship between the RBMP and other sectoral policy plans, such as land use plans, spatial planning documents or flood risk management plans. The relationship with other plans may be in certain cases regulated specifically in the legislation. The effect of such provisions is reinforced where the legislation would stipulate that such plans had to be realigned to comply with the RBMP and in which timeframes. The spatial plans are considered as broader/more strategic and would also cover development plans, while land-use plans are more detailed and would typically result in attributing a particular use to or prohibiting it in specific land plots. Table 31 shows whether or not the relationship between the RBMP and other plans is regulated and for which plans.

Table 31 Relationship with sectoral policy plans

	Regulation of relationship between RBMP and other plans?	Effect on land-use plans	Effect on flood risk plans	Effect on spatial plans
AT	Yes	✓	✓	✓
BE ⁴⁷	Yes (compatibility with possibility to depart)	✓	✓ (integration)	✓
BG	Yes (compatibility)	✓	✓ (integration)	✓
CY	Yes	✓	✓	✓
CZ	Yes	✓ (compatibility)	✓ (obligation of coordination but no hierarchy)	
DE	Yes (taken into account)	✓	✓ (possible integration)	✓
DK	Yes	✓	✓	✓
EE	Yes		✓	✓
EL	Yes (in principle but no specific provisions)			
ES	Yes	✓	✓	✓
FI	Yes	(in practice yes)	✓	(in practice yes)
FR	Yes (obligation of compatibility)	✓	✓	✓
HU	Yes (very general)			
IE	Yes (through guidance rather than legislation)	✓	✓	✓
IT	Yes (obligation of compatibility)	✓	✓ (integration)	✓
LT	Yes (compatibility and coordination)	✓	✓	✓
LU	No		✓	
LV	No (apart from flood risk plans)		✓	✓ (regional spatial plans prepared by MoE)
MT			✓	
NL	Yes	✓	✓	✓
PL	Yes	✓	✓	✓
PT	Yes	✓	✓	✓
RO	Yes	✓	✓	✓
SE ⁴⁸	Yes	✓		✓
SI	Yes	✓	✓	✓

⁴⁷ Only Flanders

⁴⁸ This relates only to PoMs and EQS, not to RBMPs

	Regulation of relationship between RBMP and other plans?	Effect on land-use plans	Effect on flood risk plans	Effect on spatial plans
SK	Yes	✓	✓	✓
UK	Yes	✓	✓	✓

Similarly to the conclusions drawn in relation to individual decisions, the relationship between RBMPs and other planning documents is regulated in different manners across the different Member States. Sometimes, the legislation provides for the possibility to depart from the RBMPs subject to certain conditions. For example, in Flanders, the regional spatial implementation, the spatial implementation plans or development plans may depart from the mandatory provisions of the river basin management only based on: (i) a reasoned and simultaneous consideration of the spatial needs of different social activities, (ii) the report of the sub-basin board plenary session or on the basis of the objections raised during the public inquiry and comments, (iii) the advice submitted by the designated departments and authorities, or (iv) the opinion of the committees responsible for spatial planning. In the Czech Republic, the Water Act lays down that RBMPs are background documents for land use planning. Thus, the land use authorities (town and country planning authorities) have to automatically take them into account in the land use planning procedures. The requirement “to take into account” means that the RBMPs are not binding and the land use planning authorities do not have to stick to them but only if they properly justify why they are doing so.

In Denmark, the RBMP has an effect in relation to a range of different planning and land use measures. The national, regional and local authorities are required to take the RBMP, including the environmental objectives and PoM into account and ensure that compatibility with the plan in their planning pursuant to other legislation, including land use/spatial plans. The RBMP as well as the local action plan should be considered by regional planning. A similar situation occurs in France, where the rule of compatibility with RBMPs applies to key territorial planning documents. Interestingly, the French legislation sets a deadline of three years to make these plans compatible with the RBMPs. This obligation is recalled and further detailed in guidance documents issued by the Ministry of Environment (circulaires). The obligation of compatibility, as worded in the legislation, applies to the key guiding principles and environmental objectives as defined by the RBMP, rather than the RBMP in general. The requirement ‘to take into account’ can also be an obligation to consider the RBMP and its objectives as one of different factors to be weighted when taking land use and spatial planning decisions. For example, the German Federal Act on Construction requires municipalities to carry out an environmental assessment of how their land use plans (*Bauleitpläne*) will impact the environment. In addition, it requires them to take water-related plans including RBMP into account when it establishes and updates these plans. It is left to the discretionary power of the municipalities to weight these factors against others.

In certain cases, the obligation is only worded in a very general way and not further specified in sectoral legislation. For example, water legislation only stipulates that environmental objectives must be taken into account by the competent authorities while planning activities that concern the environment, which includes spatial planning as well as land-use planning processes. In the table above, this has been considered as a form of relationship between RBMP and planning documents but not sufficient to ensure an effect on specific plans.

In other cases, the obligation of compatibility or taking into account the RBMP derives from the legal nature of the decision approving the RBMP. It is the case for example in Cyprus. Another example is Latvia where, the Ministry of Environment is also responsible for the supervision of development of both the RBMP and the regional spatial plans and thus has to take into account all planning documents which are binding to the Ministry, including RBMP.

In some cases, the relationship is indirect as is the case in Sweden where the legal relationship between the RBMP and other plans is not regulated. However, the Planning and Building Act stipulates that EQS shall be complied with during planning and zoning and that any decisions adopted under chapter 5 of the Environmental Code shall also be followed. Chapter 5 stipulates the adoption of PoM if it is necessary to meet EQS. Thus, planning and zoning decisions need to take into account the PoM.

Finally, in some countries, there is no direct link and the relationship between the RBMP and other plans is only defined in the law where it is already defined in an EU Directive that it transposes. This relates principally to the link established with the flood risk management plans in the Floods Directive. This is the case in Malta where apart from the reflection of the link set by the Floods Directive, there is no coordination stipulated in the law in terms of permitting requirements, reviews and timelines. The need to strengthen the legal relationship with other sectoral plans is recognized by the PoM, which states that one of the key measures to guarantee the successful implementation of the RBMP is strengthening the relationship between environmental and planning regulatory processes. In such cases, compatibility with the RBMP and environmental objectives would depend on a coordinated approach being adopted by the competent authorities in practice.

Another element to be considered is whether river basin authorities are involved or consulted in the preparation/adoption of other planning documents, as this can also ensure a strong coordination between the RBMP and other planning documents. Table 32 identifies countries where there are specific legal provisions on the involvement of river basin authorities in the development of other planning documents.

Table 32 Involvement of RB authorities in the development of other planning documents

	Legal provision on involvement?	Comments
AT	Yes	There are provisions in place to ensure that basin authorities are consulted in the preparation of a land use plan of the municipalities and revisions are to be carried out regularly. The same authorities are competent for the development of flood risk management plans and the RBMP.
BE ⁴⁹	Yes	Councils and administrations of basin can provide their opinion on the RBMP, sub-basin management plans and spatial implementation plans or development plans during the plans' preparation phase
BG	Yes	The basin authorities are involved in the decision-making process of the spatial planning/regional development documents
CY	Unknown	However it should be noted that the same authority is responsible for the preparation and implementation of RBMP and flood risk management plan.
CZ	Yes (only for land use plans)	The land use planning authorities have to involve all natural and legal persons concerned as well as all authorities concerned into the land use planning procedures. Thus, basin authorities will also be involved and will have several opportunities to comment on the draft land use plans at various stages of their preparation.
DE	Yes	As a minimum German legislation provides for the right to be informed and comment.

⁴⁹ Only Flanders

	Legal provision on involvement?	Comments
DK	Unknown	
EE	Unknown	
EL	No	
ES		
FI	Yes	The Centres have an expert position in planning matters but municipalities make decisions
FR	No	The law requires that the relevant prefect is involved in the development of the different territorial planning documents. Besides, users and environmental associations should also be consulted. The municipalities, which are the main actors in terms of implementation of the RBMP are the main developers of the different territorial planning documents.
HU	No	
IE	Yes	Through local authorities and EPA input into other public bodies' plans and programmes
LT	Yes	The MoE, its agency and regional departments are the key institutions responsible for the water use and protection and also for conciliation, of land use, agricultural, other plans and programmes in the field of environmental protection. The conciliation practically means the first step of approval of these plans and programmes. These environmental authorities are consulted during development of the plans and programmes and they have the right to reasonably reject those plans and programmes and are responsible for ensuring compatibility of these plans with the provisions of RBMP for water related aspects.
LU	Yes	The legislation on land use spatial plans refers to the involvement of the Water Management Agency, the authority responsible for the implementation of the RBMP, in the preparation and adoption of particular land use spatial plans and projects. In addition, a Spatial Planning Commission (<i>Commission d'aménagement</i>) is established to advise the Government on any issues and questions related to urban and municipality planning projects. This commission is assisted by a member of the Government dealing with the management of water.
LV	Unknown	
MT	No	
NL	Yes	In the context of the periodic preparation of the National Water Plan (every six years of which the RBMPs are a part), the other national, regional or local water plans are also revised. These plans include national management plans such as the Management and Development Plan for National Waters (that includes flood management plans), and regional management plans such as the provincial water plans or provincial spatial plans, as well as the water management plans of the water boards. This coordination of the preparation and periodic revision of the different policy and management plans ensures the coordination of the different measures that are included in the RBMPs.
PL	No	
PT	Yes	All River Basin District Administrations have a Department of Planning, Information and Communication who is involved in the development, evaluation, revision, and implementation of spatial planning and land use plans with relevance on water resources management.
RO	Yes (only for flood risk management plans)	Pursuant to the Water Law, the Basin Committees have to agree the flood risk management plans. They also have to co-operate with the Ministerial Committee for Emergency Situations, the Water Administration (Apele Române) and other similar bodies as concerns the plans and regulations related to floods defence (flood protection).
SE	No	
SI	Yes	The Ministry of Environment rather than basin authorities is requested to provide guidelines for the preparation of land use/spatial plan and is consulted on the draft final plan (after public consultation). In case of negative opinion, the Government decides on the conformity of the national or local plan with the particular guidelines or opinion.
SK	Unknown	
UK	Yes (through guidance)	Ministerial guidance requires the Environment Agency to work with other public bodies to develop good links between river basin planning and other relevant plans and strategies, especially those plans which have a statutory basis (e.g. Regional Spatial Strategies/ Wales Spatial Plan; Local Development Frameworks (England), Local Development Plans (Wales)). In particular, the guidance states that this partnership should be a two way process, suggesting that consultation should take place when developing relevant plans and strategies.

River basin authorities must be consulted on land-use plans in at least 13 Member States. Consultation may be limited to simply submitting opinions to the authority in charge of developing

land-use and spatial plans e.g. in Flanders, councils and administrations of basin can provide their opinion on spatial implementation plans or development plans during the plans' preparation phase. In some cases, consultation takes place in coordination structures such as specific councils or commissions.

In Bulgaria, under the Spatial Planning Act and implementing Rules, representatives of the Ministry of Environment and Water and its regional structures (including the Basin Directorates) take part in the Councils on regional development established at national and regional level which main task is the development, adoption and implementation of strategies for regional development.

In the case of flood risk management plans, the fact that the authorities preparing the plans are usually the same as those responsible for the RBMP is central to the coordination of both documents.

Legal provisions are generally limited to the right to be informed and to comment on other plans. Very few provisions on coordination and consultation during implementation have been identified. One example is Germany where the competent authorities of the Länder or municipalities are required to monitor the implementation of the spatial planning and land use plans and to inform the competent water authorities when they realise that the implementation adversely impacts water bodies in a significant way. In Portugal, all River Basin District Administrations, which are in charge of elaborating and implementing the RBMPs and the specific plans for water management, have a Department of Planning, Information and Communication which is involved in the development, evaluation, revision, and implementation of spatial planning and land use plans with relevance to water resources management namely with regard to harmonisation, internal and external coordination and graduation of the different interests required by law.

10.3 Financial commitment

A key element to ensure an effective implementation of the RBMP is the level of financial commitment, namely what financial resources if any are allocated in the RBMP, as well as the mechanisms for granting these. This part of the national reports was mainly based on information from the RBMP assessment and validation by the SCG representatives. The results are presented in Table 33, which describes whether or not financial resources are allocated directly in the RBMP or at least an estimate is provided, whether this is an actual commitment and what are the sources of financing identified. When available, the mechanisms for allocating resources are described.

Table 33: Allocation of financial resources

MS	Financial resources allocated in RBMP	Binding financial commitment?	Source of funding	Mechanisms for granting resources
AT	No	No	Budget of the Environment and Water Management Fund, Federal and Länder budget, municipalities budget, interested parties	Unknown
BE ⁵⁰	No (only estimates)	No	Relevant sectors (industry, agriculture and households) and	Unknown

⁵⁰ Only Flanders

MS	Financial resources allocated in RBMP	Binding financial commitment?	Source of funding	Mechanisms for granting resources
			the government directly or via subsidies	
BG	No (only estimates)	No	Water users; state budget; municipal budgets; the Enterprise for management of environmental protection activities (under the MoE); EU funds; donor programmes of non-EU countries; private-public partnerships in the field of water sector; bank credits	Allocation on a yearly basis
CY	No	No	Unknown	Unknown
CZ	No (only estimates)	No	EU funds and national funds (budget of the MoE, National Environmental Fund or funds of the regions), water users	Unknown
DE	No (but most Länder give general info in RBMPs on how measures included in PoMs are financed)	No	Reference to Federal, Länder and municipal budgets; as well as funds from various programmes of federal, Länder and EU level	RBMP and PoM implementation depends on the financial means available at Länder or regional and local level.
DK	No	No	State budget and Common Agriculture Programme	Unknown
EE	No	No	Unknown	Unknown
EL ⁵¹	Unknown	Unknown	Unknown	Unknown
ES	No	No	Unknown	Financial resources not specifically identified in the annual General State Budget. However, activities financed through the general programming of the MoE.
FI	Yes	Unclear	Investment of regional water associations, water companies, municipalities and eventually public bodies	Unclear; the national action program for 2010-2015 to promote RBMP implementation identify problematic activities (e.g. agricultural diffuse pollution) and vulnerable water bodies in order to direct measures and financing to those areas.
FR	No	No	Water Agencies	Water Agencies' intervention programmes are primarily regulated by the Law on Water and the maximum amount of the Water Agencies expenses for a six-year period. Each year, the budget of the Water Agencies is re-examined by the Parliament and an annex to the Law of Finances provides an assessment of the finances of the Water Agencies
HU	Yes	Unknown	EU funds (Structural funds and CAP related funds), state budget and contribution of the private sector	Mechanism for allocation is not clearly set.
IE	No	No	Not clearly defined but would include local authorities budget, central government budget, Water Services Investment	Following the RBMP adoption, local authorities will develop implementation programmes and identify all resource implications

⁵¹ The RBMPs have not yet been adopted.

MS	Financial resources allocated in RBMP	Binding financial commitment?	Source of funding	Mechanisms for granting resources
			Programmes	and funding requirements.
IT	Yes (only for some RBMPs and only partly)	No	Unknown	Unknown
LT	Yes	No - some of the proposed measures have been changed or eliminated due to lack of financial commitments	State budget, budgets of the municipalities and the EU funds	Each year, Parliament approves the state budget and council of a municipality, municipality budget. They must include financial resources for implementation of RBMPs/PoMs measures.
LU	Yes (estimates and sources)	No – but once the RBMP is approved, it can constitute a form of financial commitment	Water management funds, municipality budget, other funds e.g. agri-environment fund	At least partly through the RBMP/PoM
LV	No (only estimates)	No	EU (including European Regional Development Fund)	Allocated by responsible authorities
MT	No (only estimates)	No	Unknown	Unknown
NL	No (extensive cost and affordability estimates)	No	Mainly users and polluters but also some general funds	Unknown
PL	Yes (only potential sources and only in the PoM)	No	Authorities and the owners of the land and facilities, loans and grants - mainly (various EU funds and from the Voivodship (Regional) Funds for Environmental Protection and Water Management)	Unknown
PT	Unknown	Unknown	State budget, River basin district administrations budget (which includes water resources taxes), EU funding	Each River Basin District Administrations has an annual Plan of Activities and an annual budget made available at their websites. These are approved by the competent Minister.
RO	Yes	The National Management Plan (rather than RBMP) presents the financing sources detailed at sub-basin levels as well as a total of the funding at national level.	Financial resources at national level 39.92% from European funds (cohesion, ISPA, PHARE, SAPARD, SAMTID, EIB, EBRD etc.), 19.34% from the state budget, 13.77% own resources and loans, while for 26.97% of the costs, financing sources should be identified.	The main institution responsible in terms of financing of the RBMP is the Water Administration, which manages a financing system based on contributions, tariffs and penalties. All water users (i.e. industry, agriculture, household, irrigations, hydropower, etc.) are subject to this system and the quantum of the contributions does not take into account the financial power of the users.
SE	No in the RBMP. (estimates in PoM)	No	Authorities and municipalities	State budget and regional/local budgets
SK	Yes (estimates and sources)	No – not legally binding but only indicative.	EU funds, State budget, Budget chapter of Ministry of environment, Budget of municipalities, Slovak water management company and entrepreneurs.	State budget endorsed by the national parliament every year.
SI	Yes (cost estimates)	No	EU funds, municipalities budgets, ministries budget, revenues from water users (water rights, concessions) and other sources	Mostly state budget

MS	Financial resources allocated in RBMP	Binding financial commitment?	Source of funding	Mechanisms for granting resources
UK	No	No	Unknown	Unknown

This overview shows that in general, financial resources are not allocated directly in RBMPs or PoMs. When information is presented, it is often in the form of estimates, with an identification of potential sources. It seems, although these results must be taken with caution, as the allocation of government financial resources is, as a rule, done on a yearly basis (some sources, such as EU funds, are allocated on a multi-annual basis). While many RBMPs have indications of funding sources, the mechanisms for financial allocation often are not clearly set or no information is easily available. In some countries, nonetheless, mechanisms are in place to earmark broad amounts to the implementation of the RBMP.

As a rule financial resources are not allocated in the RBMP but are usually decided upon when adopting State budgets. For example, in Sweden, there are no financial resources allocated specifically in the RBMP. However, in 2011, the central government allocated 154,000,000 SEK (EUR 17,785,000) to responsible authorities (five regional water authorities, 21 County administrative boards, SMHI and SGU) as a contribution to their work for implementing the Directive. In addition about 400,000,000 SEK (EUR 46,195,000) were distributed, mainly to local and regional authorities, to support preparatory measures and implementation measures. Only in two Member States, the RBMPs are partially linked to financial commitments: in Latvia, measures have been changed due to a lack of financial commitments, indicating a link; in Luxembourg, once approved the RBMP can constitute a sort of financial commitment.

Nonetheless, the RBMPs in 20 Member States have at least some information on the potential financial sources for the PoM. It should be noted that in this area, it has not been possible to differentiate between full and partial information – i.e. whether the information covers all financial needs or only part. Taking these limitations into consideration, in a majority of Member States (17), the State budget or Government funds at national level is a potential source of financing, followed by municipalities' budget for 10 Member States, while regional level budget is identified as a potential financing source in only four Member States. Many Member States (12) rely on EU funds while 10 also mention water users. In France and Portugal, financial resources are allocated mainly through RBD specific administration. In France, Water Agencies' intervention programmes are primarily regulated by the Law on Water which sets the broad priority orientations of the programmes for 2007-2012, including 'Contributing to the realisation of the objectives of the SDAGE'. It also sets the maximum amount of the Water Agencies expenses for 2007-2012 to 14 billion euros. Each year, the budget of the Water Agencies is re-examined by the Parliament and an annex to the Law of Finances provides an assessment of the finances of the Water Agencies. In seven Member States, it appears that there is no information on financial sources.

11 Conclusions

The conclusions focus on the link between the legal nature of the RBMPs/PoMs and policy integration and on the extent of financial commitment in terms of securing resources allocation for the implementation of the RBMPs and the PoMs.

11.1 Policy integration

The legal nature of RBMPs, that is, their legal status and effect, is central to the policy integration of the RBMPs that is the existence of a single framework for all water-related policies and issues. The key question in this perspective is whether or not the RBMPs and PoMs are binding on various stakeholders so that the objectives set can be effectively reflected in other policies and measures, in particular, individual permitting decisions.

Up-front, it should be noted that the notion of a 'binding' document is unclear. The analysis of the legal status and effect of RBMP and PoM in the Member States show very different situations, linked to the variety of legal traditions and approaches and which do not allow drawing clear-cut conclusions. Besides, the legal value of the RBMP and PoM is one element amongst many others. For example, the setting of operational administrative arrangements to ensure coordination between the relevant authorities is also essential.

The review shows that the RBMP's legal status is primarily determined through the type of act, which ultimately approves the plan, in particular, the institutional level at which they have been adopted. The first differentiation is whether the authority adopting the RBMP is a central authority (i.e. central government at national or regional level through devolved authorities) or a regional authority. As a rule, the RBMP is adopted at the Government (or Council of Ministers) level. This is the case in 16 MS. In five others, the adopting authority is the Ministry in charge of environment. In two countries, decentralised administration is responsible. With the exception of Austria, the legal effect of the RBMP would be limited to the river basin itself rather than the whole territory.

Another element should also be kept in mind, which has not been considered in this review but has also an impact on the legal force of the RBMPs and PoMs. It relates to the degree of details and clarity of the measures provided for in the plans and programmes. In other words, in order to have a 'binding' value, the text should set some obligations or objectives which are expressed in a sufficiently precise fashion to be implemented. Some parts of the RBMP would typically be more of a descriptive, informative nature e.g. the summary of significant pressures and impact of human activity on the status of surface water and groundwater, while other parts such as the environmental objectives themselves are expected to have a legal force. This is recognised by some countries where the RBMP may not be binding as a whole but some parts only.

Finally, in a more general manner, the extent of the involvement of direct stakeholders into the preparation and implementation of the RBMP is also an important factor to ensure buy-in and takes these stakeholders' concerns into consideration to facilitate further alignment of administrative decisions and spatial planning. In 10 countries, there is no requirement for public participation beyond those set in the Directive, Article 14. The 17 remaining countries are providing for additional mechanisms for public participation, targeting specifically key stakeholders, water users and other authorities. This allows to have a more structured and regular process of consultation, involving the main stakeholders in a more pro-active manner. Such structures are set at national level e.g. the National Water Management Council in Hungary or river basin level e.g. water conferences and

councils in Slovenia or Basin Committees in France, or both, for example in the UK, such consultation is organised between the Environmental Protection Agency and the National Liaison Panel (at national level) and River Basin Management Liaison Panels (at the level of RBD).

There is some form of gradation as to the extent the RBMP is 'binding', as reflected in the different way the legal requirement is formulated: take into account, have regard to, be compatible, be in conformity, etc. Without defining a precise typology, the legal effect of the RBMP can be distinguished according to the following broad categories (and in relation to individual administrative decisions only):

Type of legal effect	Comments	Member States
Administrative decisions related to water should 'take into account' the RBMP	This obligation is rather vague. It has been interpreted in some countries as the obligation not to contradict the RBMP without clear justification.	BE, FL, CZ, DE, FI, HU, IE, SE, SI, SK, UK
Administrative decisions related to water should conform to or be compatible with the RBMP	The obligation implies that the administrative decisions cannot contradict the RBMP.	AU, BG, DK, EL, ES, FR, PL, PT, RO
There is no specific provision on status. The RBMP is rather considered as a general planning document with limited legal effect	In such cases, it is mainly left to the approach that will be adopted in practice by the Competent Authorities	CY, EE, IT, LT, LU, LV, MT, NL

However, this only gives a general indication on the legal 'effect' of the RBMP. More specific provisions can often be found in the legislation regarding the relationship between the RBMP and individual decisions (permits) or planning documents.

With regard to individual permitting decisions, whilst in most Member States there is a direct legal effect of the RBMPs and the WFD objectives for different sectors, fewer Member States have explicit provisions of reviews of such permits and even fewer have aligned the timetables with the reviews of the WFD (every 6 years). Often, the general provisions on EIA, permitting and planning imply, on the basis of the legal status of the decision approving the RBMP and PoM, that permits and concessions are to be made compatible with those. This is reinforced by the fact that the same authority is responsible for approving the RBMP and/or implementing the RBMP/PoM and granting permit.

The existence of specific circumstances triggering this review, e.g. non-achievements of WFD objectives is crucial. While the WFD does not include any provision on the legal status or effect of the RBMPs as such, some provisions imply that the RBMP/PoM should have a binding value. Particularly relevant is Article 11(5) of the WFD, which provides that in case the environmental objectives are unlikely to be achieved, the relevant permits and authorisations should be examined and reviewed as appropriate. In order to properly implement this requirement, it is essential that the national legislation includes mechanisms to ensure that the permits and authorisations are effectively evaluated and their conditions revised if necessary to achieve the environmental objectives.

Another important factor is the relationship of the RBMP with other planning documents. Similarly to the conclusions drawn in relation to individual decisions, the relationship between RBMPs and other planning documents is regulated in different manners across the 27 Member States.

In at least 21 Member States, the RBMPs have some effect on land use and spatial plans. Even where there is an obligation of compatibility, in some Member States, the legislation provides for the possibility to depart from the RBMPs subject to certain conditions e.g. in Flanders or in the Czech Republic. In such cases, decisions on variance must be justified. France constitutes an example where the relationship between RBMP and spatial/land use plans is regulated specifically, including in spatial planning legislation, through the setting of a rule of compatibility with RBMPs. Interestingly, the French legislation sets a deadline of 3 years to make these plans compatible with the RBMPs. This obligation is recalled and further detailed in guidance documents issued by the Ministry of Environment (circulaires).

In some countries, there is no direct link and the relationship between the RBMP and other plans is only defined in the law where it is already defined in an EU Directive that it transposes, that is principally the link established with the flood risk management plans in the Floods Directive (this is the case in 24 Member States). An example is Malta where apart from the reflection of the link set by the Floods Directive, there is no coordination stipulated in the law in terms of permitting requirements, reviews and timelines. In such cases, compatibility with the RBMP and environmental objectives would depend on a coordinated approach being adopted by the competent authorities in practice.

In addition, river basin authorities must be consulted on land-use plans in at least 13 Member States. Legal provisions are generally limited to the right to be informed and to comment on other plans. Very few provisions on coordination and consultation during implementation have been identified. One example of such cases is Germany where the competent authorities of the Länder or municipalities are required to monitor the implementation of the spatial planning and land use plans and to inform the competent water authorities when they realise that the implementation adversely impacts water bodies in a significant way.

River basin authorities must be consulted on land-use plans in at least 13 Member States. Consultation may be limited to simply submitting opinions to the authority in charge of developing land-use and spatial plans while, in some cases, consultation takes place in coordination structures such as specific councils or commissions.

In the case of flood risk management plans, the fact that the authorities preparing the plans are usually the same as those responsible for the RBMP is central to the coordination of both documents.

In general, the role of SEA, which has not been addressed in a systematic manner through all country reports although some national experts have mentioned such procedures, should not be overlooked. The RBMP itself is often subject to SEA and so do several land use plans. The SEA process constitutes a useful framework to ensure consultation and involvement of the relevant authorities, including river basin authorities in land use planning.

11.2 Financial commitment

The RBMPs do not contain a binding commitment of financial resources in any Member States. Only in two Member States, the RBMPs are partially linked to financial commitments: in Latvia, measures have been changed due to a lack of financial commitments, indicating a link; in Luxembourg, for example, once approved the RBMP can be a sort of financial commitment.

Financial resources are usually decided upon when adopting government budgets. Here, there is a mismatch between the long-term (six-year) time period for the RBMPs and the usually yearly budget cycle.

Only in eight Member States do the RBMPs specifically discuss the allocation of financial resources for the Programme of Measures, though partial information is provided in a further nine Member States where estimated costs and sources are also discussed. In some cases, subordinated plans – such as the regional RBMPs in the Czech Republic – include cost estimates for specific projects.

Nonetheless, the RBMPs in 20 Member States have at least some information on the potential financial sources for the PoM. (It should be noted that in this area, it has not been possible to differentiate between full and partial information – i.e. whether the information covers all financial needs or only part.) Taking these limitations into consideration, in a majority of Member States (17), the State budget or Government funds at national level is a potential source of financing, followed by municipalities' budget for 10 Member States, while regional level budget is identified as a potential financing source in only 4 Member States. Many Member States (12) rely on EU funds while 10 also mention water users. In 7 Member States, it appears that there is no information on financial sources.

Overall, however, little information was found in the first round of RBMPs on financing issues, and this is an area that likely deserves further attention.

11.3 Efficiency

Efficiency was not considered as such during the review at national level. However, a few conclusions can be drawn, keeping in mind that a lot depends on the national approaches and legal traditions.

A first important element is the act approving the RBMP. The fact that the RBMP is ultimately approved at the national government level appears to ensure a high legal status. This does not preclude the role of RBD and lower level authorities in the actual development of the RBMP, nor does it lessen the importance of stakeholders' involvement in the preparation and implementation.

In relation to individual decisions, the effect of the RBMP/PoM would primarily derive from its legal status and impose upon permitting authorities, while the existence of specific requirement on review of permit and alignment of timing can be seen as an additional factor of efficiency as it provides legal clarity and certainty. This would be particularly important in relation to hydropower concessions which have a very different timeframe, and abstraction for agriculture, where such specific provisions are also rare.

In the case of effects on planning documents, the relationship with flood risk management plans is rather straightforward and Member States would be expected to reflect and build on the links

already established by the EU legislation. For land use and spatial planning document, it may be not reasonable to expect that RBMPs would simply take precedence over other planning documents. The obligation to comply with RBMPs when it exists is generally limited to water-related aspects and sometimes limited to environmental objectives set up by the RBMPs. However, it is considered as good practice to ensure in the legislation (or guidelines) that there is a reciprocal obligation for each planning process to take into accounts the others, and, at least, to ensure that the objectives of RBMPs are not compromised by land use or spatial planning documents.

In both cases, efficiency is also conditioned by an active involvement of relevant stakeholders. On the one hand, involvement of other authorities (other ministries, regional/local authorities) in the preparation and implementation of the RBMP and on the other hand the involvement of RBD authorities or authorities in charge of implementing the RBMP into permitting and planning. While their involvement in permitting (especially due to the fact that the authorities are often the same) seems a relatively common feature, this is not always the case in relation to planning and that would be an aspect requiring further consideration.

12 Areas for future work

In order to complement this review of the legal status of RBMP/PoM, it would be advisable to consider through in-depth reviews/case studies whether the adoption and revision of the RBMPs has effectively led to an evaluation of existing permits and planning documents.

With regard to financial commitment, as shown in this review, this is not as a rule part of the RBMP/PoM although in several cases, estimates are available to a varying degree of precision. In order to carry out this assessment, further investigation would be needed in order to precisely determine mechanisms for financial allocations. It would be useful to investigate how financial resources have been allocated to the implementation of the first cycle of RBMP/PoM, their sources, if the resources actually allocated are considered as sufficient, if they are in line with the estimates provided, if available.

Part IV. Enforcement Systems

13 Introduction

The inception report for the Pressures and Measures study identified the following objectives for Task 1c:

The overall goal is to provide an overview, for each Member State, how enforcement, inspection and sanction regimes related to water policy are designed and implemented.

In addition, the task will seek to identify information on good/best practices in Member States, together with common problems and areas for improvement. If sufficient information is found, the task report could develop recommendations to be considered for the Blueprint.

The inception report identified a series of questions to be addressed in Task 1c (see Annex 1). These questions were then used to prepare, in consultation with DG Environment, a questionnaire for information-gathering.

The work for Task 1c represents the first systematic effort to gather information across all Member States on enforcement related to the Water Framework Directive, and the information obtained has varied significantly among Member States.

14 Methodology

14.1 Defining enforcement

Definitions of the main terms used in this sub-task were prepared in consultation with DG Environment, based on EU documents.⁵² These are as follows:

- **Control** refers to the procedures set in law (including in permits) to ensure that permit and other legal requirements are followed. These can be procedures that permit holders must follow – e.g. abstraction metering, pollution monitoring, keeping a registry of water use or discharges. In addition, authorities can also take certain control procedures, including monitoring as well as inspections.
- **Enforcement** refers to the broad range of activities taken by authorities to ensure that permit and other legal requirements are followed, as well as actions in the case of possible infringements. Enforcement thus includes control procedures as well as sanctions and legal action via courts.
- **Inspections** are on-site visits by authorised government officers to ensure that the conditions in the permits and other legal requirements are respected.

⁵² Including the 2001 *Recommendation on minimum criteria for environmental inspections in the Member States*

- **Sanctions** are the administrative or criminal measures taken when a private entity is in infringement with the law, including conditions established in permits. Sanctions can be fines and imprisonment but also a range of other remedial and punitive measures, for example suspension of the activity or an order to restore the environment.

The questionnaire focused on these topics.⁵³ Related issues for enforcement were not directly addressed, such as: links between the monitoring of water quality (and quantity) in water bodies and the monitoring and enforcement of emissions, abstractions and other areas covered by permits; and the use of enforcement results in water management planning, including the possible revision of permits.

14.2 Sequence of work

Task 1c sought information that to a great extent was not available from existing EU-level sources, such as the RBMPs and their common assessment or the WISE data system. For some Member States, key information was available in national reports and other resources available via Internet; further information was sought from national officials. As a result, for many Member States information gathering relied heavily on responses from national officials on both a template of standard questions as well as to follow-up interviews.

The work for Task 1c has followed a series of three main phases:

- **Inception:** the inception phase defined key terms (see above) and developed the questionnaire for information gathering.
- **Phase I:** initial information gathering for each Member State. National experts sought to fill out the template to the extent possible through desk research, in particular looking at documents and legislation available on Member State web sites.
- **Phase II:** consultation with Member State officials. Each Task 1c template was sent for comment and completion to Member State officials working on water management and enforcement. On the water management side, the MS representatives to the Strategic Coordination Group (SCG) for the Water Framework Directive each received the draft template (along with the templates for the other three sub-tasks of Task 1). Following their responses, the officials were then contacted for a follow-up interview. On the enforcement side, national members of IMPEL were contacted for interviews. Responses were received from most but not all MS (see the table below).
- **Phase III:** analysis and synthesis of the information gathered.

The information gathered varies significantly across Member States. To some extent, this is due to structural reasons: in a number of Member States with a strong federal or regional structure, the national level has a minor role in enforcement and consolidated national data on enforcement activities are not available. At the same time, the extent of information provided by MS officials, as expected in the inception report, has varied significantly.

⁵³ One Member State response, from the Netherlands, stated that this definition is not a 'Dutch' way of achieving objectives, as co-operation is preferred. While the definition here can include a broad range of approaches under 'enforcement', the response highlights IMPEL's distinction between dialogue-based and command and control approaches to enforcement (see section 3.2 below).

Table 34: Overview of Phase II work

MS	SCG reply	Interviews
AT	✓	
BE	✓	✓
BG	✓	✓
CY	✓	✓
CZ	✓	✓
DE	✓	
DK	✓	✓
EE	✓	✓
EL		
ES	✓	
FI	✓	✓
FR		
HU	✓	
IE	✓	✓
IT	*	*
LT	✓	✓
LU	✓	✓
LV	✓	SCG
MT		
NL	✓	✓
PL		IMPEL
PT		IMPEL
RO	✓	✓
SE	✓	SCG
SI	✓	✓
SK	✓	✓
UK	✓	

* One interview carried out at regional level.

Legend: ✓ (Both SCG and IMPEL consulted) IMPEL (only IMPEL consulted), SCG(only SCG consulted)

15 Background information

The EU has taken action on the issue of environmental inspections and enforcement in recent years, in particular with the objective of improving implementing of the EU environmental *acquis*. In this context, IMPEL has carried out a number of recent studies on EU enforcement, including in the field of water legislation. Work in these areas provides the context for the current study.

15.1 EU activities on environmental inspections and enforcement

The 2001 *Recommendation on minimum criteria for environmental inspections in the Member States* (RMCEI) notes, in its preamble, that

‘There is currently a wide disparity in the inspection systems and mechanisms among Member States in terms not only of their capacities for carrying out inspection tasks but also of the scope and contents of the inspection tasks undertaken and even in the very existence of inspection tasks in a few Member States...’ (Preamble, 8)

The Recommendation further states that

‘Reporting on inspection activities, and public access to information thereon, are important means to ensure through transparency the involvement of citizens, nongovernmental organisations and other interested actors in the implementation of Community environmental legislation...’ (Preamble, 16)

The Recommendation called on Member States to report within two years on their environment inspection activities, including the following (Art. VII(2)):

- Staffing and resources of inspection authorities
- Number of site visits made
- Degree of compliance and summary of actions taken for serious complaints, accidents, incidents and occurrences of non-compliance
- Evaluation of the success or failure of the plans for inspections

After the first Member State reports, however, a regular reporting cycle on inspections was not established.

The EU Environment Council, in December 2010, called on the Commission and Member States to ‘enhance and improve’ the implementation and enforcement of EU environmental legislation; it also called on the Commission to continue supporting cooperation projects on inspections, including at regional level and via IMPEL.⁵⁴

In 2012, the European Commission released a Communication on better knowledge and responsiveness for environmental measures.⁵⁵ The Communication noted that there is a ‘lack of data on compliance and enforcement work being undertaken at national level by inspectors, prosecutors and courts’, and it called for work with Member States and networks of inspectors, judges and courts to identify crucial categories of data and means of collecting data.

While this document notes that a broad range of bodies are responsible for activities and data gathering on enforcement, it also highlights that the large number of infringements, complaints and petitions related to EU environmental legislation ‘point to a need generally to reinforce implementation monitoring within Member States’.

⁵⁴ Council of the European Union, Improving environmental policy instruments: Council conclusions, 3061st Environment Council meeting, Brussels, 20 December 2010

⁵⁵ COM (2012)95 final, 7 March 2012

15.2 IMPEL work on enforcement in the water sector

The European Union Network for the Implementation and Enforcement of Environmental Law (IMPEL) is an association of environmental authorities of EU Member States, acceding and candidate countries, and Norway. With support from the European Commission and Member States, IMPEL has carried out a broad range of studies and joint work on enforcement, including on the Water Framework Directive. A number of these studies provide valuable background and context for the information gathered under sub-task 1c.

The IMPEL initiatives on ‘Do the right things’ have provided input to EU discussions on the follow-up to the RMCEI, and they also produced guidance for Member State inspectors.⁵⁶ Among the ‘right things’ for effective inspection, IMPEL emphasises: the preparation of inspection plans; linking inspection objectives with policy priorities; incorporating risk assessments into inspection planning; allowing time for both planned and non-routine inspections; and ensuring good communication with other bodies such as ministries and agencies.

A recent IMPEL study prepared and analysed six country case studies on how inspectors address non-compliance (for IPPC permits).⁵⁷ The study identified three main conclusions (see the box below). The study also noted that Member States follow two main approaches in enforcement strategies, and their use depends on the ‘legal traditions, culture and legislation of the Member States’:

- Dialogue-based strategy
- Command and control strategy: consequent use of sanctions

The two are not separate: some Member States pursue dialogue and then turn to sanctions when discussion does not produce results. However, Member States have different approaches; some, for example, emphasise the role of dialogue first, while others focus on command-and-control.

IMPEL recommendations for enforcement of IPPC permits

- Enforcement strategies should be based on a clear, precise and detailed IPPC permit.
- Permitting and inspection activities should be done in a very close cooperation between the authorities.
- The training programmes for the inspectors are an important component of the enforcement strategy.

IMPEL has also carried out a project about the interactions between the IPPC Directive and the Water Framework Directive in the area of enforcement: in the first phase, interactions between the legislation (and related guidance documents) were assessed; the second phase was based on questionnaires sent to both IPPC and water enforcement officials in Member States. Key conclusions

⁵⁶ IMPEL, *Do the Right Things III: Implementation of the step-by-step guidance book on planning of environmental inspections*, 2008

⁵⁷ IMPEL, *Strategy of enforcement: final report*, 2011

from the second phase are presented in the box below, and the report also presents recommendations for follow-up to the European Commission, IMPEL and Member States.⁵⁸

Conclusions from the IMPEL project on IPPC and water Directives

- It is important for IPPC operators and regulators to have accurate information on the objectives of the water Directives in order to make legally robust operational and regulatory decisions.
- IPPC permit conditions need to ensure installations operate so as not to threaten the objectives of the water Directives which may require going 'beyond' BAT.
- There is significant complexity with multiple sources of pollutants to water (IPPC and/or non-IPPC), which is a regulatory challenge for industrial regulators and water authorities. They need accurately to assess the relative importance of the different sources regarding pressures of concern.
- BREFs have provided some assistance to regulators in addressing water issues, but they do not provide sufficient guidance to help in addressing water objectives derived from EU law.
- Guidance under the CIS has addressed some interactions with IPPC/IED (e.g. for mixing zones), but further guidance (or elaboration of existing guidance) is needed on the regulatory obligations and regulatory opportunities that arise from the interaction with IPPC/IED.
- There are extensive monitoring requirements for all of the Directives addressed in this project and IPPC and water authorities have used data from the different regulatory regimes. However, much could be done to improve the utility of data between regulatory regimes, including in some cases simply making such data more readily available.
- The institutional relationships between IPPC and water authorities vary enormously between Member States. It is important to put procedures in place to facilitate ways of working together to ensure that the right information is shared, that information exchange is timely and that management decisions are, therefore, are more robust. Coordination and cooperation are key factors for success.

The IMPEL studies were based on case studies as well as questionnaire responses and workshop discussions with a small number of Member States, and they provide in depth analysis on specific aspects of enforcement issues and their link to water management generally.

The results presented for Task 1c, in contrast, are based on information gathering across all 27 Member States and consequently they present a broad overview of current structures and approaches. The Task 1c results touch on some of the issues raised in the IMPEL studies. For example, information gathering for Task 1c assessed whether IPPC and water permits were enforced by the same authority in Member States. The results also provide some information on links between permitting and enforcement authorities. Information was also sought on coordination mechanisms, including those among enforcement authorities, where more than one is found in a Member States, and between enforcement and policy authorities, where these are carried out by different bodies. The results for Task 1c thus complement recent IMPEL studies.

⁵⁸ A. Farmer and V. Cherrier, Linking the Water Framework Directive and the IPPC Directive: Report of Phase 2 of the Project, IMPEL, 2011

16 Overview of enforcement authorities in Member States

This section provides an overview of the enforcement authorities based on the Task 1c questionnaire. It looks at three dimensions: the geographical structure (in particular, the administrative level addressed); the authorities responsible across different sectors; and the authorities responsible for different types of permits. The first dimension, administrative level, is particularly complex and shows a wide range of variations across Member States.

Table 35: Overview of enforcement authorities for water permits across Member States

MS	Federal State	National environ. authority/ agency	Environ. Inspectorates (incl. regional offices)	Other regional offices of national gov.	Regional authorities*	RBD/ catchment authorities	Local authorities	Police forces
AT	F	✓ ^a			✓		✓	✓
BE	F				✓		✓	✓
BG			✓			✓		
CY		✓						✓
CZ			✓		✓		✓	
DE	F				✓		✓	
DK		✓					✓	✓ ^b
EE			✓					
EL		✓			✓			✓ ^b
ES	Q	✓			✓	✓ ^h		✓ ^f
FI				✓ ^c			✓	
FR		✓ ^d	✓ ^d	✓ ^d			✓	✓
HU			✓ ^e				✓	
IE		✓					✓	✓
IT	Q				✓			✓ ^f
LT		✓						
LU		✓						
LV		✓						
MT		✓						
NL			✓		✓	✓ ^g	✓	
PO			✓		✓			
PT			✓		✓ ⁱ			✓
RO		✓	✓			✓	✓	✓
SE					✓ ^j		✓	
SI			✓					
SK		✓	✓		✓		✓	
UK	Q				✓		✓	

Notes:

F: Federal system

Q: Quasi-federal system

*Regional offices of national bodies, other than inspectorates, are designated in parentheses: (✓).

a. The Lebensministerium carried out enforcement for large IPPC installations and also has overall enforcement responsibilities

b. Police may be called in to assist environmental inspectors: not a main authority.

- c. Regional Centres for Economic Development, Transport and the Environment: regional offices of the national administration
- d. Enforcement in France involves regional and departmental offices responsible for environment and national agencies and their regional and/or department offices.
- e. Regional offices of the environmental inspectorate are organised on a catchment basis
- f. In particular, police at national level.
- g. Water boards
- h. RBDs that cross Spanish regions (i.e. Autonomous Communities) are of national responsibility; RBDs within a single region are of regional responsibility.
- i. The autonomous regions of the Azores and Madeira.
- j. County administrations

16.1 Key enforcement authorities and their geographical structure

Table 35 on the previous page provides comparative information on the main enforcement authorities across Member States. It should be noted that national administrative structures in general vary greatly (see Part II of this report), and these in turn shape many structures for enforcement.

Overall, the analysis here is intended to provide practical comparisons, rather than a legal and constitutional analysis of national administrative structures. Nonetheless, the distinction between federal, quasi-federal and non-federal structures is important. Three Member States have a formal *federal structure*: Austria, Belgium and Germany. In these Member States, most enforcement is carried out by authorities at regional and lower levels. (In Austria, the Federal level has a role in the enforcement of IPPC permits and also as the highest authority responsible for enforcement; in Belgium and Germany, national-level authorities do not have a role in enforcement related to water issues.)

Three other Member States have a *quasi-federal structure*: Italy, Spain and the UK are placed in this category. In two of the three Member States considered to be ‘quasi-federal’, Italy and Spain, national police have a role in enforcement (see below). In the UK, however, only regional bodies are involved: the environmental agencies for England and Wales, Northern Ireland and Scotland carry out enforcement.

Many other Member States have designated sub-national areas such as regions that have an important political and administrative role. France has both regions and, below these, departments. Greece, following a recent reorganisation, has decentralised administrations that are linked to the national government as well as self-governing regions.

Across all Member States, regional authorities have a role in enforcement of water-related permits in 12 Member States.

A role for *RBD-level enforcement bodies* was seen in only three Member States: Bulgaria, Romania and Spain (this formerly the case for continental Portugal as well – however, RBD authorities in Portugal have been integrated into a national agency and it is not clear if enforcement will continue to be carried out along RBD lines).

At least 10 Member States have *environmental inspectorates*⁵⁹ that lead enforcement work: this approach is common in the new Member States, and eight of the 10 Central European EU12 MS have such authorities. In all these cases, the inspectorates are at national level; in many of these countries, the national inspectorates have regional and sometimes local offices. In Hungary, the inspectorate's regional offices are organised by catchment.

In other Member States, *national environmental agencies* lead enforcement. In Luxembourg, the Administration for Water Management is the main enforcement agency for water permits. In Latvia and Lithuania, regional environmental boards under the ministries responsible for environment lead enforcement work.

References to a role for *police forces* were found for six Member States. In Italy, for example, a specialised wing of the Carabinieri corps carries out enforcement related to water and other environmental issues; this is also seen in Portugal. In some other Member States, such as France, regular police forces can intervene in the case of violations but do not have a dedicated wing operates for water-related issues. Moreover, in many countries police forces will be brought in when a violation is considered to be a subject for action under criminal law: Denmark is one example. (It is believed that this role exists in a larger number of Member States than those reported.)

Finally, a role for *local government* was noted for 10 Member States. In Scandinavia in particular, municipalities have a designated enforcement role for environment permits, including those related to water. In Finland and Sweden, for example, enforcement for facilities below certain thresholds is the responsibility of municipalities; enforcement for larger facilities is carried out at the regional level (counties in Sweden).

Member State administrative structures can change over time. This overview provides an overview valid for the first half of 2012. It thus includes major reorganisations that occurred in Portugal and Slovenia.

16.2 Enforcement authorities responsible for different economic sectors

In most smaller Member States, there is one main environment enforcement authority and this body carries out inspections of water-related permits across all the main economic sectors: examples include Cyprus, Lithuania, Portugal and Slovenia. In one larger Member State, the UK, the three regional environment agencies (for England and Wales, Northern Ireland and Scotland) also enforce permits across all main sectors.

In some other Member States, however, differences for specific economic sectors are seen (see Table 36 below) – often, these relate to IPPC installations. In Austria, for example, enforcement for large IPPC installations is carried out at Federal level, while all other water-related enforcement occurs at Land and lower levels. In Luxembourg, the Environment Agency leads enforcement for IPPC facilities (and smaller 'classified installations'), while the Water Management Agency is the lead authority for all other enforcement related to water.

⁵⁹ Or bodies with this function by a different name, such as the Regional Environmental Protection Departments under the Ministry of Environment in Lithuania

In a couple of Member States, differences for other sectors are found. In Sweden, for examples, the counties enforce permits for hydroelectricity plants and mining, while enforcement of permits for most other sectors is divided between country and municipal level based on the size of the facility. In Denmark, on the other hand, the municipal level is in charge of enforcement related to agriculture and to gravel extraction.

It can be noted that almost all cases of a sectoral split among enforcement authorities were found in the EU15 Member States.

It should also be noted a division of work is found within enforcement authorities. In the IMPEL study on IPPC and WFD, for example, inspection work for these two areas in some Member States is carried out by different offices within the same authority. The study noted cases where communication and coordination on IPPC and WFD needed strengthening.

Table 36: Overview of Member States where enforcement authorities are divided by sector

Member State	Enforcement authorities for specific economic sectors
AT	Industry/IPPC facilities: split between Federation and Länder based on size of facility Agriculture: Land or district authority, depending on designation of river
CY	IPPC facilities: while the Ministry of Agriculture, Natural Resources and Environment is the main enforcement authority for water issues across all sectors, the Ministry of Labour and Social Insurance is also involved in enforcement for IPPC facilities.
DE	IPPC: The competent regulatory authorities within each Land are responsible. Agriculture: the local water authority is responsible for inspections. Hydroelectricity installations: the county/city authority is responsible for inspections.
DK	Industry: larger facilities controlled by Ministry of Environment, smaller by municipalities Agriculture and gravel extraction: municipalities; Urban WWT plants – MoE
IE	The EPA enforces large industry including IPPC licences (e.g. mining, intensive agriculture, some energy activities), Waste licences and Urban Waste Water Discharge licences. Local Authorities enforce other facilities with permits under the Water Pollution Act.
LU	While the Water Management Agency (WMA) enforces water permits, the Environment Agency is the lead authority for enforcement of IPPC permits, and it coordinates with the WMA on enforcement of water-related aspects of IPPC permits
SE	In general, the county administrative boards and the municipalities are responsible for enforcement across the most important economic sectors. The Rural Affairs Ministry and the Agriculture Agency share responsibility for agriculture, including agricultural IPPC facilities.

The questionnaire focused on enforcement of permit requirements. In the agriculture sector large facilities that are major point sources of pollution require permits, as these are included under IPPC requirements (in some Member States, such as France, national legislation also requires permits for certain agricultural point sources below IPPC thresholds). In many Member States, agricultural abstractions will also be subject to permits or other authorisation requirements.

Diffuse agricultural pollution, however, remains a major problem for water bodies across the EU⁶⁰. In the interviews, several Member State officials discussed this issue, noting that permits do not cover diffuse pollution. To some extent, requirements under CAP – in particular for good agricultural and

⁶⁰ EEA, European waters – assessment of status and pressures, 2012

environmental condition (GAEC) and cross-compliance with environmental legislation such as the Nitrates Directive (91/676/EEC) – address agricultural runoff. Information on enforcement of GAEC and cross-compliance was found for a few Member States. In these cases, agricultural authorities lead any enforcement activities. In the Czech Republic, for example, the State Agricultural Intervention Fund enforces GAEC, while the Central Institute for Agricultural Inspections and Testing supervises cross-compliance; if infringements are found, farmers may see their direct support reduced or withdrawn. In Cyprus, the implementation of the GAEC and cross compliance requirements is the responsibility of the Cyprus Agricultural Payments Organization (CAPO), an independent entity. In Ireland, the Department of Agriculture is the lead authority for enforcement of these requirements, including issues related to the Nitrates Directorate and cross-compliance.

Based on the information gathered, it appears that enforcement for CAP requirements is largely carried out separately from other enforcement activities related to water. However, the information obtained is limited, and this appears to be a valuable area for further work. In two Member States, Portugal and Slovenia, government reorganisations have merged the national agriculture and environment inspectorates: it could be valuable to see if this has strengthened links between GAEC and cross-compliance requirements on the one hand and water protection on the other.

16.3 Enforcement authorities for different types of permits

In a few Member States, different enforcement authorities are responsible for different types of permits. In Bulgaria, for example, the river basin directorates are the lead authorities for enforcement of abstractions, while the regional inspectorates lead enforcement on discharges. In Denmark, local authorities enforce permits for abstractions, impoundments and hydromorphological modifications. In Finland, for example, the regional ELY offices of the national administration carry out enforcement of abstraction permits and hydromorphological modifications, while enforcement of other permits are divided between these offices and local authorities based on the size of the facility. Malta also has different authorities for discharges to sewers and to the sea, as well as for water abstractions. The Table below summarises these cases.

Table 37: Overview of Member States that distinguish enforcement by type of permit

Member State	Enforcement authorities for specific types of permits
BG	River basin directorates carry out enforcement of abstraction permits; Regional inspectorates on environment and water do so for discharge permits
DK	Abstraction, impoundment and other hydromorphological modification: municipalities Point sources: <ul style="list-style-type: none"> • Municipal WWTPs: Ministry of Environment • Industry with separate discharge - divided between MoE and the municipalities
FI	The enforcement authority – either the local level (municipality) or the regional level (ELYs) – normally depends on the size of the facility Hydromorphological modifications and water abstraction: responsibility of the ELYs
MT	Discharges of effluent to sewer – The Water Services Corporation Discharges of effluent to sea – Malta Environment and Planning Authority Water abstraction – Malta Resources Authority

In Cyprus wastewater discharge and water abstraction are enforced by different departments of the ministry responsible for environment. Such internal divisions are likely in other Member States as well. In at least one region in Italy, for example, different regional offices are in charge of enforcement of abstractions and discharges.

16.4 Links with permitting authorities

In several Member States, permitting authorities are also enforcement authorities – the two functions are effectively linked. In some cases, this is linked to the division of roles across administrative levels: in the Netherlands and Finland, for example, authorities at different levels can grant permits related to water – in Finland, for example, regional bodies for large installations and municipalities for smaller ones. In the Netherlands, on the other, the division is by type of water course (national, regional or local). In both countries, the body granting a permit is responsible for its enforcement. In the UK, the three regional environment agencies cover water management, permits and enforcement.

Table 38: Overview of Member States where permitting and enforcement are linked

Member State	Enforcement authorities for specific types of permits
CY	The Minister of Agriculture, Natural Resources and Environment is both the main enforcement authority and also the main water authority
CZ	Regional and local authorities issue water permits and also carry out enforcement (as does the Czech Environmental Inspectorate)
DK	Permitting and enforcement of industrial facilities are carried out by municipalities, for small facilities, and the Ministry of Environment; in general, the permit authority carries out enforcement
FI	Permitting and enforcement are carried out by the municipal level, for small facilities, and county level, for large facilities. The authority issuing the permit will carry out enforcement of the facility
IE	Permitting and enforcement are carried out by the EPA and local authorities, based on the size of the facility; in general, the permitting authority also carries out enforcement
IT	The regions are competent for both permitting and enforcement.
NL	The level of authority responsible for water management, including permitting, also carries out enforcement. (The levels are state, regional and provincial.)
LU	The Water Management Agency is responsible for granting water-related authorizations and leads on the enforcement of water-related legislation.
MT	The authority responsible for issuing a permit is also responsible for its enforcement
PT	Permitting authorities are responsible for the enforcement of the specific conditions of the permits they provide (fiscalização), while inspectorates and police carry out broad inspection activities (inspecção)
UK	Northern Ireland, England and Wales, Scotland Environment Authorities issue permits and undertake their enforcement and management in their territories.

In other Member States, permitting authorities have a specific, often limited enforcement role. In Portugal, river basin authorities (now part of the Portuguese Environment Agency) issue most water-related permits and carry out enforcement focused on water issues; the General Inspectorates

carries out cross-media inspections that can be more comprehensive. In the Czech Republic, for example, the Environmental Inspectorate does not have competence to issue permits; regional and local authorities can issue certain permits and also carry out enforcement activities, though their enforcement role appears to be secondary.

16.5 Coordination mechanisms

Coordination is important where several authorities have responsibility for enforcement, to ensure similar treatment of permit holders, and more generally to use resources effectively and efficiently. In addition, coordination between enforcement and water management authorities can direct enforcement efforts towards policy priorities. These two issues are treated in sequence.

Coordination among enforcement authorities

In countries with one main enforcement authority, such as Estonia and the UK, internal coordination may be an issue; little information was found, however, on this topic.

In other countries, a wide range of mechanisms have been identified (many of these go beyond the water sector to cover environmental enforcement more generally).

Ireland, for example, has a *national network* – the Environmental Enforcement Network – that brings together the main authorities working in this field. In area of water enforcement, the Network has developed catchment-level enforcement plans.

In France, there is a *coordinating office* in each Department: the Inter-service mission for water (Mission interservices de l'eau, MISE), which brings together the public authorities on water issues, and identifies common actions, including on enforcement.

Meetings and joint planning are highlighted in several other Member States. In Finland, enforcement is divided between the municipalities and regional bodies (15 Centres for Economic Development, Transport and the Environment, ELYs in their Finnish acronym). The ELYs and the municipalities in their territory meet once a year to discuss enforcement plans. The ELYs are also the water management bodies. In the Walloon Region of Belgium, environmental enforcement office meets yearly with police and courts to review and plan enforcement issues.

In two Member States, *memoranda of understanding* between key offices are highlighted: this is the case for Luxembourg and Romania. It is expected this tool is commonly used, however.

In Romania the memorandum of understanding between the water agency and the National Guard, a police force with an environmental wing, provides for *joint inspections* involving officials of both organisations. Some joint inspections are seen in Bulgaria as well.

Data management is mentioned for both Spain and Portugal: in the latter, for example, a national database for all permits and enforcement actions is in preparation as a tool for enforcement.

Finally, *training* and conferences are mentioned for a couple of Member States. In Ireland, national environmental conferences – including a yearly water conference – provide an opportunity for coordination and communication among enforcement agencies. In Sweden, the associations for counties and municipalities organise national training events.

Coordination with water management authorities

Water management refers to a range of activities, including: the preparation of strategic policy and legislation; preparation of RBMPs, programmes of measures and other planning; permitting; and monitoring. Many of the coordination mechanisms mentioned above also involve water management authorities; however, the extent of information gathered varies across Member States.

In several Member States, enforcement authorities are offices of the ministries in charge of water management authorities, or are separate bodies that report directly to such ministries. In Cyprus, enforcement of water permits is carried out by departments of the Ministry of Agriculture, Natural Resources and Environment. In Slovenia, the inspectorate is an administrative body under the Ministry of Agriculture and Environment, and as such has a relative autonomy. Several other Member States have a similar system, with a separate inspectorate under the ministry responsible for environment.

In the UK, the three environment agencies are the lead enforcement authorities. These agencies carry out a range of water management tasks, including the preparation of RBMPs.

The results for the most part did not identify direct links between policy and enforcement authorities. In Italy, however, the Minister of environment can call on the environmental wing (*nucleo ecologico*) of the Carabinieri to carry out enforcement actions. Moreover, the Ministry has launched several campaigns for stronger enforcement, together with the Carabinieri [*further information to be sought*]. In Greece, the national inspectorate and the Special Water Committee of the Ministry of Environment, Energy and Climate Change worked together on a joint plan to address industrial pollution of the Apsopos River.

A few responses highlighted the importance of *informal coordination* among authorities. In Belgium, informal contacts at federal level help to coordinate among the three regions. In Luxembourg, the heads of the Environment Agency and the Water Management Agency meet regularly. And good contacts among the National Guard, general inspectorate and permit issuers are highlighted for Portugal.

16.6 Other mechanisms

The information gathering sought to identify other mechanisms, in addition to inspections, that have been useful for compliance and enforcement. In this regard, several responses indicated self-monitoring requirements for permit holders as a valuable mechanism. This has been the case in Portugal, where self-monitoring requirements were introduced in a 2007 reform of permits. In Finland, Slovenia and Sweden as well, self-monitoring and reporting were identified as a key mechanism for enforcement.

In at least three Member States, controls on the work of public authorities are indicated as an element of enforcement. In the Czech Republic, the Ministry of Environment and Ministry of Agriculture can carry out ‘supreme water management supervision’ of regional and local authorities. In Slovenia, organisations outside of government can be authorised for water protection supervision. In the Netherlands, the national inspectorate for environment monitors the activities of authorities responsible for the implementation of the Water Framework Directive; however, in previous years this monitoring went further and included ‘inspection research’.

17 Data on enforcement activities

The questionnaire asked for data on the number of inspectors, inspections and infringement cases specifically related to water permits. In some Member States, publically available national reports provide this data for the main enforcement authority or authorities (though in several Member States, statistics refer to enforcement activities across all media and not just for water). For a few other Member States, responses from officials provided the information requested.

Table 39: Data availability on numbers of inspectors, inspections and infringement cases

Member State	Number of inspectors	Number of inspections	Number of infringement cases	Data specifically for water	Data for all main enf. authorities
Austria					
Belgium	✓ ^a	✓ ^a	✓ ^a	✓ ^a	✓ ^a
Bulgaria		✓	✓	Partial	✓
Cyprus	✓	✓	✓	✓	✓
Czech Republic	✓	✓	✓		
Denmark					
Estonia	✓	✓	✓		✓
Finland	✓ ^b	✓ ^b			
France	✓	✓	✓		
Germany		^c			
Greece					
Hungary					
Ireland	✓	✓	✓	✓	✓
Italy		✓ ^d	✓ ^d		
Latvia		✓	✓		
Lithuania	✓	✓	✓		✓
Luxembourg	✓	✓	✓	✓	✓
Malta					
Netherlands					
Poland		✓	✓		✓
Portugal	✓	✓	✓		
Romania		✓	✓		
Slovak Republic		✓	✓		✓
Slovenia		✓	✓		✓
Spain					
Sweden	^e	^e	^e		

Member State	Number of inspectors	Number of inspections	Number of infringement cases	Data specifically for water	Data for all main enf. authorities
UK		✓ ^f	✓		✓

Notes:

✓ = data available for water sector

ENV = data found for all environmental areas

a. Belgium: not include Brussels Capital Region

b. Finland: data only available at regional level, not at municipal level

c. Germany: data found for one Land, Hessen (across all environmental inspections); may be available also for other Länder

d. Italy: data only found for Carabinieri

e. Sweden: data found for all environmental areas for 2003

f. UK: data found for Northern Ireland for water; for England and Wales for IPPC inspections

Although the data available varies greatly across the Member States, the Table 39 (above) shows that at least some information was collected from most countries (20 or 27 Member States). Nonetheless, the data that were found or provided varies greatly across the Member States.

First of all, most data provided refers to all environmental inspections; only for five Member States (at present) did the data specifically cover the water sector or water-related permits: for most Member States, data instead refers to all areas of environmental enforcement.

A further issue, as noted in section 4, is that in many Member States, more than one authority is response for enforcement – and in many of these cases, data were only found for some of the authorities. In fact, the data found covers all main enforcement authorities for only 11 Member States (most of these countries have one main enforcement authority).

Data collection was difficult in particular for federal and quasi-federal Member States, where most enforcement is carried out at regional level: in none of these were national data on enforcement found. In Belgium, some data for the three regions were collected; and some data was found for the three main divisions of the UK as well. In Austria, Germany and Italy, the main enforcement activities are carried out at regional level: nationwide data on these activities were not found. In Germany, desk research reviewed web sites of several Länder; only in one, Hessen, was data found. No data on regional enforcement activities were found for Italy.

It is not clear the extent to which the current data are comparable across countries. For inspection activities, for example, some Member States differentiate between on-site inspections and reviews of documents and reporting, and between planned and unplanned inspections; others do not. The data on enforcement actions vary greatly: some Member States provided data on administrative fines; some on other administrative actions as well, such as warnings. Moreover, national approaches for the application of sanctions vary greatly: for example, as described in section 6 below, some Member State do not have administrative fines.

An overview of the data collected can be found in Annex 2.

18 Sanctions

This section provides an overview of the sanctions in Member States for the violation of water-related permits. The section first presents a comparative overview of the main sanctions set in national legislation. It then discusses sanctions that are commonly applied: here, however, less information was found.

18.1 Sanctions set in national legislation

The approach to sanctions can vary greatly across Member States; differences in legal systems are a key influence. In general, sanctions can be divided into those under administrative law and those under criminal law. (A few Member States also have other categories: Hungary, for example, has quasi-criminal sanctions.)

Administrative sanctions are applied directly by authorised government enforcement officials. They can include a range of actions, from warnings to orders to come into compliance or otherwise redress a violation.

In many Member States, administrative sanctions also include *monetary fines* for violations. In Denmark and Ireland, however, fines are not included among administrative sanctions, and are found only under criminal law. This is also the case in the UK for Northern Ireland and Scotland; in England and Wales, however, a system of administrative fines has recently been introduced for environmental violations. A system of administrative fines for small violations is under study in Scotland.

Criminal sanctions are applied under criminal law, and thus via national court systems. Directive 2008/99/EC requires Member States to establish measures to address criminal offences related to the environment. For example, criminal offences should be set for:

‘the discharge, emission or introduction of a quantity of materials or ionising radiation into air, soil or water, which causes or is likely to cause death or serious injury to any person or substantial damage to the quality of air, the quality of soil or the quality of water, or to animals or plants’ (Art. 3(a))

The offences listed in the Directive also refer to activities related to waste management and the operation of plants with dangerous activities or where dangerous substances or preparations are used.

Annex 3 provides an overview of the maximum sanctions set for water-related violations across Member States. The levels are only indicative for a number of reasons: for example, the specific violations for which the highest sanctions are set vary; and the sanctions commonly applied may not necessarily be related to the highest ones set. The annex shows nonetheless that the maximum level of administrative fines ranges greatly, from under 3000 Euros in Lithuania to 2.5 million Euros in Portugal. The maximum prison sentence under criminal sanctions goes from 2 years in the UK to up to 20 years in Romania.

18.2 Sanctions commonly applied

Information was sought regarding the sanctions commonly applied for violations of water permits. Results were found, however, for only a few Member States, either from published data on actions taken to address violations or from information provided by Member State officials.

It appears that there are important differences among Member States in the extent to which fines and other sanctions are applied.

The information for some Member States, such as Denmark, points to a sequence of actions are taken when a violation is detected, starting from non-binding requests. In other Member States, however, it appears that inspectors more commonly apply fines at an early stage. The differences probably relate to the alternative approaches to enforcement highlighted by IMPEL (see section 3.2), in particular in the role of dialogue between inspectors and facilities compared to a ‘command and control’ approach.

In some Member States, specific procedures can influence the application of sanctions: in Poland, for example, fines can be set aside if the violating facility invests in pollution control.

Overall, these differences suggest that direct comparisons among Member States on single indicators or topics for analysis are difficult, in particular if the goal is to assess ‘effectiveness’: comparisons should look at MS enforcement systems in a more holistic fashion, which is not possible in this initial overview.

19 Strengths and weaknesses of national systems

Member State officials were asked to indicate the strengths and areas for improvement of national enforcement systems. The information gathered is thus based on their expert judgement. Moreover, responses may reflect national conditions and national approaches to governance: for example, in Italy the multi-level system is praised as a resilient mechanism that provides backup in case a specific authority does not work effectively; in Lithuania, the centralised system for enforcement is indicated as a strength. Overall, both the strengths and areas for improvement vary significantly.

19.1 Strengths

In a couple of countries, the *deterrence level of fines* is identified as a strength: this is the case for the Czech Republic and Portugal, for example. In the Netherlands and Slovenia, the *effectiveness of inspections* is highlighted.

Two responses praise national requirements for *self-monitoring* on the part of permit holders: Portugal and Sweden. In both countries, self-monitoring reportedly helps identify problems and strengthens enforcement overall.

Responses from Bulgaria and Romania highlight *joint inspections*. In Bulgaria, these bring together inspectors from water basin directorates and regional environmental inspectorates; in Romania, inspectors from the national water body (Apele Romane) and the National Guard.

At least two Member States cite *enforcement in the agriculture sector*. In the Walloon region of Belgium, this is identified as an area of strength. In Cyprus, a recent enforcement programme on agricultural abstractions, using satellite photography together with on-site inspections, is noted as a model for possible future enforcement work.

In Estonia, the *independence* of the national inspectorate is praised. In Lithuania, in contrast, a *centralised system* under the Ministry of Environment is instead seen as a strength, while in Latvia, the regional structure of the inspectorate, which brings inspectors close to local issues, is indicated as a strong point. These varying responses highlight the different approaches to inspection across Member States.

In Ireland and the UK, the use of a *risk-based approach* to enforcement is highlighted. In England and Wales, for example, enforcement actions are targeted against facilities that pose higher risks to the environment, in particular those that perform poorly as well as illegal activities.

The Environment Agency for England and Wales has also created groups with a *sector focus*: the groups identify the challenges for their sectors and draw up sector-specific enforcement plans, and this is highlighted as an effective mechanism for enforcement.

19.2 Areas for improvement

A large number of responses refer to a *lack of staff or other resources*. In Latvia, for example, inspectors work across several media and do not have the opportunity to develop adequate technical skills in one area. A lack of staff is mentioned for Cyprus and Luxembourg; in Italy, upcoming budget cuts are cited as a risk. In Finland, while the role of the regional-level authorities is praised, the resources and capacity of municipalities vary greatly. In Poland, a need for greater resources at regional level is indicated.

In several Member States, specific *sectors* are identified where greater enforcement efforts are needed: small facilities and hydropower in Sweden; dams and diffuse sources in Estonia; and agriculture in Ireland.

Improving *data on enforcement* is seen as a need in several countries, including Portugal and Sweden: both are currently setting up new, centralised data systems; Austria is also improving centralised data.

In the Netherlands, the articulated system of water authorities that has developed over a long period is seen as both a strength, due to the accumulated experience, as well as a weakness, for there is a need to *improve coordination* among the different bodies.

19.3 Impact of the Water Framework Directive and RBMPs

The information sought to identify the impact of the WFD and the RBMPs on enforcement. The responses from officials in a couple of Member States, including the Czech Republic and Slovenia, did not see any change. In the Czech Republic as well as Germany, responses indicated that enforcement had been strong before the introduction of the Water Framework Directive: in the

Czech Republic, the WFD and RBMPs strengthened planning; in Germany, an effect is not clear and will depend on the implementation of the first round of RBMPs.

Answers from several other Member States, however, highlighted changes made. A couple of Member State responses referred to changes in *permitting*: in Finland and Netherlands, for example, the WFD and the RBMPs are expected to lead to more stringent permits for activities in water bodies at risk; in Romania as well, requirements for polluters will be stronger.

In Estonia and the UK (England and Wales), responses cited a *stronger river basin or catchment approach* for enforcement as a result of the WFD. In Austria, the WFD and the RBMPs are seen as improving the overall consistency of enforcement; and in Cyprus, a clearer policy overall is leading to better controls. In Cyprus, interaction with stakeholders is yielding better understanding of the problems.

Several responses indicated that the WFD and the RBMPs have led to *better enforcement and controls*. In Latvia, for example, more resources are available and the WFD and RBMPs have highlighted key pressures. In Ireland as well, there is greater attention to high-priority pollution sources, while in the UK (Scotland), controls have become stronger and have been introduced for abstraction and for diffuse pollution.

20 Conclusions

20.1 Integration: geographical scale

Here, information-gathering has focused on different administrative levels within Member States⁶¹. As the results show, Member States have a great variety of approaches in organising enforcement activities across their territories.

One conclusion, nonetheless, is that few countries have organised enforcement activities along river basin scales. The few examples are Bulgaria and Romania, where administrative bodies at RBD level have enforcement powers. This was the case also in Portugal: here, however, RBD structures were integrated into a national body in early 2012 as part of a broader government restructuring. In Hungary, enforcement is mainly carried out by the national inspectorate: this body is organised on a catchment basis.

20.2 Policy integration

The information-gathering looked at the administrative authorities responsible across major sectors that can affect water bodies: agriculture, industry, urban waste-water treatment plants, hydroelectricity facilities, and mines. In most cases the same administrative authorities are responsible for enforcement of permits across different sectors. Differences are seen, notably for

⁶¹ Thus, cross-border issues for enforcement were not addressed.

IPPC permits. Moreover, a recent IMPEL study shows that in some Member States, different offices within national inspectorates are responsible for water and IPPC enforcement

Two further considerations can be highlighted. One is whether enforcement is comparable for permits across the sectors. Only in a few Member States did officials comment on this. Some did not mention major differences; in other Member States, however, comments cited sectors that receive less enforcement attention (agriculture and hydroelectricity are among those mentioned). In Cyprus, on the other hand, an initiative to control abstraction permits (and illegal abstraction) was highlighted: this project used satellite data as well as on-site inspections.

The questions focused on enforcement of permits. A few respondents highlighted the issue of diffuse pollution, in particular related to agriculture, where permits are not used. Some responses note that this is a question addressed in part by CAP requirements, such as good agricultural and environmental condition (GAEC) and cross-compliance: here, where information was available, it appears that enforcement is for the most part undertaken by agriculture authorities.

20.3 Integration: stakeholder participation

This topic was not directly addressed. Its application to enforcement could arise, however, in at least two areas: the role of facilities themselves in carrying out enforcement; and the role of citizens and NGOs. Self-monitoring by facilities was mentioned as an important tool in several Member States. While information was not gathered concerning the role of citizens and NGOs in enforcement, and this was not mentioned by any of the officials contacted, it may be valuable a topic for future study.

20.4 Coordination mechanisms

The results show that in many Member States, enforcement activities are carried out by several authorities and at different administrative levels. In these cases, mechanisms are needed for coordination among enforcement authorities. In addition, where enforcement and water management authorities are separate bodies, coordination between them is valuable.

Many Member States have formal mechanisms for coordination, such as meetings among different authorities. In at least two, joint inspections involving different enforcement authorities are carried out. The information gathered also highlighted a distinction between informal and formal mechanisms for cooperation: several responses noted the need for informal links among officials. While some Member States may rely more on one approach than another, the two are not exclusive, as strong coordination is expected to involve both.

20.5 Transparency

This area can be analysed in terms of the extent to which information on enforcement activities is publically available: this is assessed first by the availability of statistics, and then by other considerations.

Some Member States prepare annual reports on enforcement activities carried out by major authorities: this is the case, for example, for the national inspectorates in Poland and the Czech Republic. These two Member States are among those that provide English summaries or versions. In Member States where there is a strong regional role, the provision of information varies. In Germany, for example, web searches found statistics for some Länder but not others. In Italy, however, published statistics at regional level were not found (though searches looked only at a minority of regions in each country).

20.6 Effectiveness

Several indicators could be considered in an assessment of enforcement systems, looking at their components:

- Resources available for inspections, including staff and training
- The number of inspections carried out, and follow-up action
- Trends in the number of violations identified
- Level of sanctions, and judgements whether they have a deterrent effect

The information gathered for Task 1c provides some elements for this assessment, though it varies significantly across Member States. Nonetheless, it appears that some Member States devote significant resources for enforcement of permits in the water sector.

Further study could also look at enforcement in terms of the extent to which planning of inspection and other enforcement activities has focused on water management priorities (for example, as expressed in the river basin management plans). Such a study might also assess enforcement in terms of the elements set out in the RMCEI, as well as recommendations for good practice on enforcement, such as those in IMPEL's guidelines on 'Do the right thing'.

20.7 Long-term planning

The responses for several Member States highlighted ways in which RBMPs had strengthened enforcement, for example by strengthening attention to catchment and river basin approaches. Although not part of the research, it is known that RBMPs in a few countries included measures to improve enforcement. These responses provide an initial view on how the six-year RBMP planning cycle may be influencing enforcement, though further research in this area will be valuable.

21 Areas for future work

This sub-task provides an initial survey of Member State activities on enforcement related to water policy and permits; in the inception report, it is noted that the work might identify areas for future study.

While further information gathering, synthesis and analysis are needed to complete Task 1c, some areas for future work are already emerging:

- Enforcement related to requirements in the agricultural sector. Several topics can be addressed. Already the Blueprint identifies *illegal abstraction* in this sector as an important problem in some regions and Member States. The other major issue is *diffuse pollution*, which is difficult to address as in most cases it is not tied to water permits. Here, *enforcement related to CAP requirements* can play an important role in addressing diffuse pollution.
- Issues related to other sectors, notably hydropower.
- The role of accountability, public information and public participation in enforcement.
- In-depth case studies to understand further the links between the WFD, and in particular RBMPs, and national enforcement approaches, and thus identify good practices for enforcement in the water sector.

Possible follow-up activities might be pursued within the context of IMPEL, and could seek to identify good practices and lessons learned to share among member States. Further work would support initiatives to strengthen the implementation of the EU *acquis*, such as the call by the European Environment Council in 2010 to strengthen the implementation and enforcement of the EU legislation.

Annex 1

Task 1c: questions set out in the inception report

Question	Notes
Part I: Overview of enforcement system; basic data	
Which authorities are responsible for inspections/enforcement of permits?	<i>Overlaps with a similar question for Task 1a – we will coordinate to see how to answer these questions most quickly</i>
Which authorities are responsible for inspections and enforcement for the following types of permits: Abstractions Impoundment Point source discharges Diffuse source measures Hydromorphological modifications	
Are the same authorities responsible for inspections/enforcement of different water users, such as industry (esp. IPCC facilities) and of agriculture?	
Part II: Basic data on enforcement activities	
How many inspectors worked on inspection/enforcement related to water permits in 2010? (Or most recent year where data is available)	
How many inspectors review water-related permits for industrial facilities? If integrated inspections are made of industrial facilities, approximately what share of the work is devoted to water issues?	
How many inspectors review water permits for agricultural activities?	
How many inspections related to water permits were carried out in 2010?	
For industry?	
For agriculture?	
How many infringement actions related to water permits were started in 2010?	
For industry?	
Part III: Further questions on mechanisms	
What other mechanisms exist, in addition to inspections, for permit control?	<i>The answers might point to environmental management systems like EMAS, to environmental audits and to reporting requirements</i>
What types of sanctions are normally brought?	<i>If possible, specify in terms of both administrative and criminal sanctions.</i>
Part IV: Questions related to effectiveness	
If there is more than one enforcement authority for water permits (including permits for industry and agriculture), how do they coordinate their work?	
If the enforcement authorities and water management authorities are separate, how do they coordinate their work?	
In your opinion, what are the main strengths of the system of inspections and enforcement?	
What are the main areas for improvement?	
Have the RBMPs strengthened enforcement? If so, please give examples.	
What has been the effect of the current economic crisis on enforcement?	

Annex 2

Quantitative information on enforcement activities

MS	Q4: Inspectors	Q5: Inspections	Q6: Enforcement actions
AT	<i>Data not available</i>	<i>Data not available</i>	<i>Data not available</i>
BE	Flanders: 102	8,436	500 reports on potential violations across all areas (Dept for Environment, Nature and Energy); 113 prosecutions relating to water in 2009 (Prosecutor's Office)
	Brussels: 33	Data not available	Data not available
	Wallonia: 86	4,829 (3,572 records, of which 814 relating to water)	638 injunctions (81 for water)
BG	99	9,599 (by River Basin Directorates); 2,862 (data for 8 out of 15 Regional Inspectorates) relating to water (Regional Inspectorates) in 2011	300 administrative sanctions in 2011 (RB Directorates); 132 administrative sanctions related to wastewater and 30 related to water for IPPC permits in 2011 (Regional Environmental Inspectorates)
CY	3 FTE DoE Inspectors working on waste discharge permits and 20 WDD FTE on water abstractions	100 (DoE), 1860 (WDD)	75 infringement actions, 174 warnings, 5 prosecutions in 2011 (DoE)
CZ	500 (90 for water)	3,432 inspections of water and industrial accidents (Czech Environmental Inspectorate). Data not available for regional and local authorities	557 administrative decisions concerning fines (Czech Environmental Inspectorate). Data not available for regional and local authorities
DE	<i>Data not available</i>	<i>Data not available</i>	<i>Data not available</i>
DK	450 environmental inspectors in the municipalities in 2009	7,600 inspections of industry and 7,400 inspections of agriculture (for all environmental areas)	8,000 actions by municipalities and 300 by DEPA for industry; 5,000 actions related to agriculture
EE	13.7 (water only)	Data not available	121 violations of laws for the protection of water, 118 fines by the Environmental Inspectorate, 1 criminal case was brought to court but ended without conviction
EL	Data not available	Data not available	Data not available
ES	Nationwide data not available	Nationwide data not available	Nationwide data not available
FI	70 inspectors in the ELYs in 2011. Data not available for municipalities	3100 in the ELYs in 2011. Data not available for municipalities.	Data not available

MS	Q4: Inspectors	Q5: Inspections	Q6: Enforcement actions
FR	1200 FTE (incl. 600 water and aquatic environment inspectors of ONEMA)	25,000 inspections of classified installations in 2009	Classified installations: 2870 formal notices issued by prefects, 1400 violation notices issued by inspectors, and 350 administrative sanctions. No data available for water-related violations.
HU	400 (water)	15,000	2,300 infringement actions (of which 800 imposing a fine)
IE	27 (16 for water) (EPA); 162.4 water FTE (local authorities)	54,140 routine water inspections by local authorities; 5,368 non-routine inspections	538 warning letters, 276 notices for potential violations of water requirements, 151 prosecution actions
IT	Data not available	Carabinieri (national police corps): 730 inspections nationwide related to water pollution. Other data (e.g. regional level) not available.	Carabinieri: identified 326 cases of non-conformity nationwide related to water pollution.
LT	300 enforcement specialists (1/4 of work load relates to water)	10,160 (2,540 of which related to water parts of permits)	948 infringements of environmental legislation related to water in 2011
LU	2 FTE	200 inspections related to water permits in 2011	5-10 infringement actions per year
LV	93 inspectors in the State Environment Service, 39 in the Marine and Inland Waters Administration (2012), and 53 in the Regional Environmental Boards	19,760 inspections carried out by the State Environmental Service, of which at least 691 were related to water issues	1650 legal and physical persons held administratively liable (in 2011)
MT	90 man hours of compliance inspections at installations with marine discharges	17 inspections (MEPA)	No infringement actions in 2010
NL	<i>Data not available</i>	<i>Data not available</i>	<i>Data not available</i>
PL	715 FTE inspectors working in Inspection for Environmental Protection (all issues)	30,000 controls (Inspection for Environmental Protection)	9,000 infringements (Inspection for Environmental Protection)
PT	46 inspectors (former General Inspectorate of Environment and Territorial Planning) in 2011, 2-3 inspectors in each former RBD and 7 in the Azores. No information available for Madeira	1,086 inspections across all fields in 2011 (General Inspectorate of Environment and Territorial Planning)	161 infractions related to water found by IGAOT in 2011. In the Azores, 20 infringement processes were related to water
RO	<i>Data not available</i>	47,505 inspections of IPPC facilities and industry (National Environmental Guard)	5592 administrative fines issued by National Environmental Guard (all areas)
SE	Up to date data not available	Up to date data not available	Up to date data not available
SI	56 inspectors in the Inspectorate for Agriculture, Forestry, Food and the Environment (for all areas of environmental protection, including water)	5,196 environmental inspections of which 456 inspections related specifically to water management (not including industrial pollution and risks)	128 inspection measures by the Inspectorate (all environmental areas)

MS	Q4: Inspectors	Q5: Inspections	Q6: Enforcement actions
SK	Data not available	1193 inspections related to water (Slovak Environment Inspectorate)	249 infringements related to water permits were identified
UK	<p>Data not available for England and Wales or Northern Ireland</p> <p>Scotland: 115 inspectors dealing with water related permits</p>	<p>Data not available on water-related inspections in England and Wales or Scotland.</p> <p>Northern Ireland: 116 inspections in 2009 (Northern Ireland Environment Agency)</p>	<p>England and Wales: 631 prosecutions under the Water Resources Act in 2008/9</p> <p>Northern Ireland: 58 warning letters and 39 cases referred to the public prosecutor's office in 2009</p> <p>Scotland: 58 final warning letters and 27 statutory notices related to water, 18 water-related cases referred to the public prosecutor for potential court prosecution</p>

Annex 3

Overview of sanctions in national legislation for violations of water permits (and other violations of water legislation)

MS	Administrative sanctions (fines)*	Criminal sanctions (prison sentences and fines)	Notes
AT	Up to 36,340 Euros		Three types of sanctions: criminal sanctions, administrative criminal sanctions (e.g. fines or imprisonment) and administrative enforcement measures
BE		Fines up to EUR 10 million and prison sentence up to 15 years.	Possibility of administrative fines: maximum values not found. Sanctions vary across the three Federal regions.
BG	Up to BGN 25,000 (EUR 12 820)	Prison sentence up to five years Fines up to 30,000 BGN (15,385 Euros)	Criminal sanctions are applied in addition to administrative sanctions, in the case of severe offences.
CY		Prison sentence up to three years and fines up to EUR 85,000	
CZ	Up to 10,000,000 CZK (approx. 40,000 Euros)		
DE		Fines up to 50,000 EUR and imprisonment	Sanctions include administrative actions, administrative criminal (i.e. quasi-criminal) and criminal penalties
DK	No fines as administrative sanctions.		
EE	Up to 32,000 Euros (for legal persons).		
EL	Up to 1.5 million Euros	Prison sentence up to 20 years, and fine up to 0.5 million Euros (for a 'severe ecological disaster')	
ES	Up to 600,000 Euros	Prison sentence up to 12 years	
FI		Prison sentence up to six years, and fines	
FR	No fines	Prison sentence up to 2 years and 150 000 EUR in fines	
HU	Calculated based on a formula that can include value of facility and days of violation	Imprisonment of up to 8 years	Sanctions include administrative, quasi-criminal and criminal sanctions
IE	No fines	Set in Court decisions, may include fines	

MS	Administrative sanctions (fines)*	Criminal sanctions (prison sentences and fines)	Notes
		and/or imprisonment	
IT	Up to EUR 120 000	Prison sentence up to three years and fines	
LT	Up to EUR 2896.	Fines up to EUR EUR 1.88 million and imprisonment for a term of up to six years	Environmental sanction charges (payment for the harm caused to the environment) may be imposed on legal and natural persons, in addition to administrative or criminal sanctions.
LU	No fines	Fines up to 1.5 million and one year of prison	
LV	Fines up to EUR 1400	Prison sentence up to four years and fines of maximum 200 times the minimum wage.	
MT			
NL			
PL	Depends on amount of illegal abstraction or discharge	Fines or imprisonment up to five years	
PT	Up to 2.5 million EUR	Imprisonment up to 3 years	
RO	Up to 80,000 Ron (approx.18,000 Euro)	Imprisonment up to 5 years	
SE	Fines up to 550 EUR	Fines up to EUR 1 100 000 and imprisonment up to six years	
SI	Up to 125,000 Euros (legal persons)		
SK			Administrative, quasi-criminal and criminal sanctions can be applied for violations.
UK	England and Wales: Up to 250,000 GBP (approx. 300,000 Euros) No administrative fines in Northern Ireland or Scotland	England and Wales: up to 2 years imprisonment	

Notes:

* Member States typically have a range of other administrative sanctions in addition to fines, including: warnings, clean-up orders as well as partial or total facility closures. The information is not complete across all Member States, however.

Part V. International coordination

22 Introduction and Background

This section of the report reflects the findings of Task 1b of the study with focus on European international coordination mechanisms their general set-up, effectiveness and current level of implementation allowing specific conclusions and an outlook for future improvement of implementation. In addition to several information sources, the national and international EU WFD RBMPs served as a good basis to screen and assess these listed aspects on international coordination mechanisms in river basins that are shared by two or more European countries including both EU Member States and Third Countries.

In general and globally, coordination and cooperation in international river basins play an important role regarding effective governance and long-term sustainability. Effective, coordinated and consolidated exchange between countries is considered vital as well as a key to ensure holistic management of water resources and in consequence cross-border stability.

In specific, the EU WFD in its preamble item (35) foresees as a basic international principle that within a *'river basin where use of water may have transboundary effects, the requirements for the achievement of the environmental objectives should be coordinated for the whole of the River Basin District. For river basins extending beyond the boundaries of the EU, Member States should endeavour to ensure the appropriate coordination with the relevant Non EU Member States'*. Other Articles of the EU WFD also refer to the international dimension and aspects. These are addressed in Chapter 2 of this report to ensure a complete overview.

23 Scope and Objectives

23.1 Scope

Good governance including well-structured coordination mechanisms, appropriate links between the national and international level that are based on targeted planning and cross-country consolidation is seen as a key element in achieving sustainable water management. Although the RBMP screening assessment and compliance check also provides information on administrative arrangements and international cooperation, Task 1 of this comparative study presents a more in-depth analysis on various issues regarding good governance reflecting success factors for actual implementation of the RBMPs. Task 1 as a whole provides facts regarding *Governance and Legal Aspects* on both the national and international scale covering the following four Sub-Tasks (1a) Administrative Arrangements, (1b) International Coordination Mechanisms, (1c) Enforcement, Control, Inspection and Sanction Systems, and (1d) Analysis of the Nature of River Basin Management Plans.

Scope of 1B

- Task 1b aims to present an overview on international European coordination mechanisms that are currently in place, their effectiveness through the assessment of joint activities and methods between countries sharing international river basins, the coherence between national and international RBMPs as well as the additional value of international RBMPs. In addition, coordination in international River Basin Districts and river basins is analysed regarding different approaches of river basin management.

- Approaches and analysis results are based on the requirements of the EU WFD regarding international cooperation in River Basin Districts. Details can be found in Section 25 of this report.
- The outcomes of Task 1b aim to support other activities and initiatives that are currently undertaken in relation to WFD implementation.

Key objectives of task 1b

- Provide an overview on international river basins and sub-basins in Europe representative for the analysis of international coordination and cooperation;
- Provide an aggregated overview on coordination mechanisms in place and their characteristics;
- Provide an overview on cooperating EU Member States and on the involvement Third Countries;
- Analyse joint transboundary cooperation activities and methodologies in international river basins and sub-basins as qualitative indicator for cooperation ambition and effectiveness;
- Present the status and future regarding the development of international RBMPs;
- Reflect on the linkage of international with national water management and vice versa;
- Reflect on key issues for cooperation within international river basin management;
- Describe upcoming cooperation challenges during the next WFD implementation cycle;
- Present international cooperation obstacles and successes;
- Reflect on the impact of the EU WFD on the possible improvement of international cooperation;
- Present summarising conclusions;

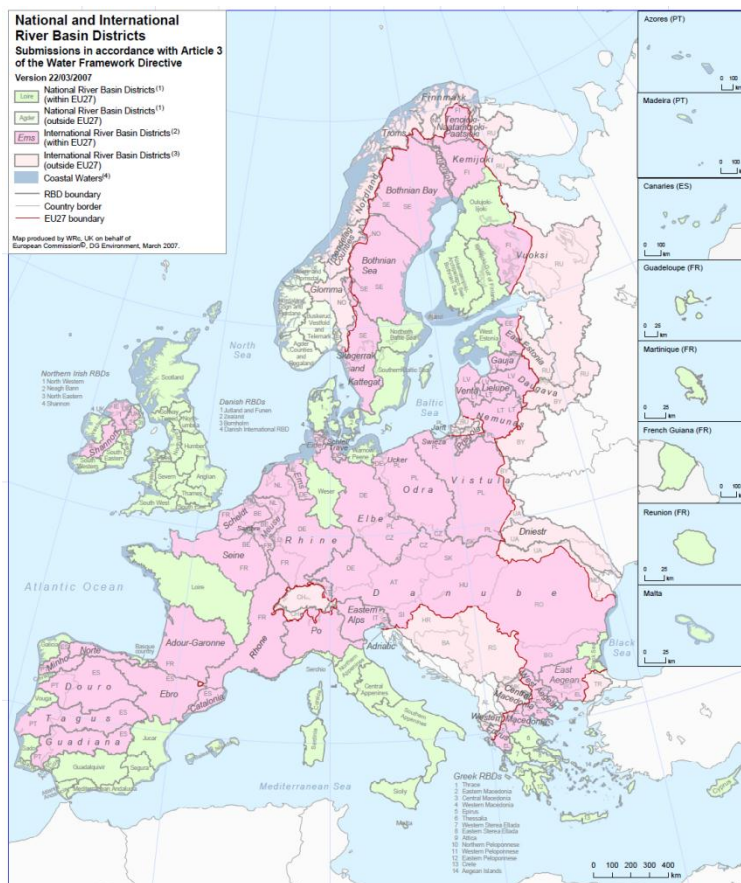
23.2 EU WFD and International Coordination

The EU WFD relates explicitly to the international dimension regarding various aspects including (i) meeting the Directive's requirements on the transboundary level ensuring appropriate coordination with the relevant Non EU Member States (Preamble item 35), (ii) coordination of administrative arrangements within River Basin Districts (Article 3), (iii) River Basin Management Plans (Article 13) and (iv) reporting (Article 15). For all aspects the clear interpretation of the nature of RBDs and national as well international RBMPs is of importance.

The above aspects are briefly addressed here in order to ensure consolidated understanding and to highlight the respective implications for Task 1b that have been taken into account in its analysis.

River Basin District (RBD)

River Basin District is the main unit for river basin management under the EU WFD. RBDs can consist of one or more neighbouring river basin and cover land, all surface waters and associated groundwater bodies and coastal waters (Article 2(15)). River Basin Districts can be exclusively national but also international. Map 2 shows all national and international RBDs that have been identified under WFD Article 3(1) and reported to the EC.



Map 2: National and international River Basin Districts identified under WFD Article 3(1).

Coordination of administrative arrangements in international RBDs

EU MS are required to identify national and international River Basin Districts under Article 3(1). River Basins that cover the territory of more than one EU MS shall be assigned to an international RBD (Article 3 (3)). In addition, Article 3(3) highlights that EU MS shall ensure appropriate administrative arrangements, to apply the rules of the EUWFD within its part of the international RBD. For this purpose the appropriate competent authority needs to be identified.

The achievement of the environmental objectives, in particular all Programmes of Measures, are required to be coordinated for the entire River Basin District (Article 3(4)). This is certainly valid for international RBDs and EU MS shall ensure this coordination and can make use of existing structures of other international agreements. In case an international RBD goes beyond the border appropriate coordination with the Third Countries shall be ensured.

Competent authorities to implement the EU WFD and to coordinate it may be national or international (Article 3(6)).

Implications for task 1b

The international river basins and sub-basins addressed under Task 1b go beyond EU territory and also include basins shared with Third Countries. Therefore, Task 1b describes which EU MS and Third Countries are sharing international river basins/RBDs as well as if all of these countries are also covered under formal coordination agreements implementing established coordination mechanisms

Implications for task 1b

Task 1b refers to international river basins and sub-basins that are clearly allocated to the international RBD identified under Article 3(1).

Therefore, catchment area shares, information on formal international agreements, coordination mechanisms and joint/transboundary cooperation activities are related to both the international river basins/sub-basins and the respective international RBDs to allow appropriate conclusions on both levels.

as required under WFD Article 3(3). In relation to the latter, the existence of international coordinating bodies per international basin/RBD is shown. To reflect on overall coordination between countries in international basins/RBDs - also taking into account the requirements of Article 3(4) - joint cooperation activities are summarised and analysed.

International River Basin Management Plans

A single international RBMP shall be produced through coordination of the respective EU MS, in case RBDs are located entirely within the EU (Article 13(2)). If such a single international RBMP is not elaborated, EU MS shall produce RBMPs that at least cover the national parts of the international RBD in such a way that the objectives of the WFD are achieved. In case a RBD goes beyond EU boundaries, the involvement of Third Countries to produce a single international RBMP shall be an endeavour (Article 13(3)).

Implications for task 1b

Task 1b analyses if international RBMPs have been developed during the first WFD implementation cycle and if so, for which river basins/RBDs. In case, international RBMPs have not been developed, Task 1b reflects related cooperation challenges and obstacles for this and if it is intended to produce international RBMPs for the next WFD implementation cycles.

24 Methodology and Analysis Approach

24.1 Investigated International River Basins under Task 1b

Worldwide about 260 international river basins can be identified (Wolfe, 1999). The figures on the number of international European river basins vary but according to Wolfe et al. (1999), 71 transboundary basins are located in Europe. This is somehow aligned to the findings after the first EU WFD implementation cycle, in which out of the 119 RBMPs assessed, 71 RBMPs were reported as 'international' with river basins shared between MS or MS(s) and Third Countries.

In case the relative national shares were not significant, international river basins were not included for investigation and analysis (e.g. River Seine is international but 99% of its basin is located in France and only 1% in BE). An exemption was taken into account e.g. regarding the SE-NO international basins. Due to the topographical situation of the region, most international basins are located to a large extent (95-99%) in either Norway or Sweden. However, these basins are addressed in international coordination and river basin management between the two countries in an aggregated way. Therefore, an exclusion of basins seemed counterproductive.

Investigated task 1b international river basins and sub-basins

Task 1b did not aim to develop a complete register of international European river basins but to compile a representative set of international European river basins as well as selected sub-basins to sufficiently analyse international coordination mechanisms in Europe. Focus was not only given to international basins on EU territory and shared between the EU 27 but also to the cooperation with neighbouring Third Countries that share specific basins.

In principle, Task 1b focuses on international river basins per se. International sub-basins are referred to when it seems really necessary and where there are separate governance aspects to raise. For example, in case a sub-basin holds a different international agreement (i.e. bilateral/multilateral

agreement, convention) than the international river basin it belongs to, it was selected for Task 1b inclusion. This applies e.g. for the Garonne river basin, where its sub-basins Nive, Nivelle and Bidasoa hold different international agreements than the Garonne itself and, therefore, have been added to the Task 1b list of basins. Another example for sub-basin inclusion can be presented for the Ebro river basin that is international because of its sub-basin Segre that is shared between Spain, France and Andorra. The Ebro basin itself does not hold an international agreement whereas France and Spain signed an international contract for cooperation in the Segre sub-basin (*Contrat de rivière du Sègre en Cerdagne*). The same is the case for the Rhone river basin with its sub-basins Doubs, Allaine, Arve and Lake Geneva, the international Vistula river basin (Bug, Poprad and Dunajec sub-basins) as well as the Drin river basin including Lake Prespa.

Overall 75 international river basins and 30 international sub-basins have been analysed under Task 1b and are part of the overview table (Annex 1).

To prevent methodological double counts, the Task 1b analysis focuses mainly on the international river basins. Hence, the text of tables and figures as part of this report highlights, if (i) exclusively the 75 international river basins are referred to with the analysis or (ii) all 105 basins consisting of the 75 international river basins **and** 30 sub-river basins.

Overview Table on international river basins

As a first step of the analysis, an overview table including all selected Task 1b international river basins and sub basins has been compiled (see electronic Annex 1) with a respective allocation to the international RBD (according to WFD Article 3.1). Specific sub-basins are referred to in many cases and where there are separate governance aspects to raise (i.e. bilateral agreements, conventions). For each river basin the following categories of information is allocated:

- Basic characteristics (total area of shared river basins; national area of shared river basin; allocated international and national RBD)
- Country information (name and number of EU MS and Third Countries in international basin)
- Basic coordination mechanism (formal agreement in place; coordinating body in place; cooperating countries; working languages; other bi- or multilateral agreements)
- EU WFD RBMPs (international RBMP in place; international RBMP planned by 2015 and beyond)
- Coordinated, joint activities and methods in place (e.g. Significant Water Management Issues, monitoring, financial resources, etc.)
- International coordination successes and challenges/obstacles regarding the EU WFD
- International cooperation tools applied

The overview table was completed in several steps depending on the availability of information. General information on international river basins in the table was available first and is based on data sources of the European Environment Agency regarding international river basins supplemented by information from many other sources like studies, reports and internet. Detailed information on international coordination and cooperation was collected via tailor-made Task 1b fact sheets that were validated through the European Commission's Strategic Coordination Group and inserted into the overview table.

24.2 Categories Indicating Basic Degree of Coordination

The selected international river basins and sub-basins have been allocated to four categories indicating a basic degree of international coordination and cooperation in relation to international

agreements, coordinating bodies and the development of international River Basin Management Plans (see Table below for respective categorisation details).

Some international basins have established cooperation agreements and are coordinated through relevant international bodies. The international river basins/River Basin Districts that are coordinated through international river commissions have - in most cases - also developed international River Basin Management Plans (RBMPs) according to the EU WFD. Many other river basins are less advanced regarding adoption of RBMPs but may still cooperate via international coordination mechanisms and coordinating bodies. Some basins have not yet established any cooperation framework at all. These four categories indicating a basic degree of coordination are:

Category I:	International river basins/sub-basins with formal international agreement & international coordinating body & international WFD RBMP
Category II:	International river basin/sub-basins with formal international agreement & international coordinating body BUT no international WFD RBMP
Category III:	International river basin/sub-basins with formal international agreement BUT no international coordinating body & no international WFD RBMP
Category IV:	International river basin/sub-basins with no formal international agreement & no international coordinating body & no international WFD RBMP

The above categorisation allowed both a first overview on coordination in European river basins and enabled following methodological steps under Task 1b, which was the development of fact sheets to collect more detailed information on international coordination mechanisms.

24.3 Fact Sheets on International Coordination

Fact sheets have been developed in order to collect detailed information on coordination and cooperation in international European river basins as basis for the analysis to achieve the Task 1b objectives. The content of the sheets is based on the analytical questions as outlined in section 24.4. Fact sheets have been completed for all Task 1b international river/sub-river basins.

The fact sheets have been developed in close cooperation with EC staff. The sheets included items on (1) basic information on the international river basin/sub-basin, (2) cooperation framework and mechanisms including any forms of agreements, (3) key areas of cooperation including information on international RBMPs (if available) and their linkage with the national ones, (4) international coordination successes and challenges, (5) future of international cooperation (next steps/view towards 2nd WFD implementation cycle), and (6) key cooperation obstacles. Details on the content of the fact sheets for each category can be found in Annex 2. All completed facts sheets are compiled in Annex 3 (available as a separate document).

Fact sheet items varied among the four categories, although international river basins falling into categories II and III have been addressed with the same fact sheets due to their similar character. When feasible, international river basins/sub-basins have been aggregated in specific country groups within each category (see Table 40) to reduce the efforts in information collection per fact sheet. This means that country groups may include more than one international basin managed under the same formal agreement. For example, the country group ES-PT includes five international basins (Duero/Douro, Guadiana, Miño/Minho, Lima/Limia, Taja/Tejo). For all five basins, international coordination takes place under the same formal agreement (Albufeira Agreement). The same is valid for other basins like the ones shared by Latvia-Lithuania, between Sweden-Norway or Finland-

Russia. Table 40 lists the country groups for each coordination category and the related international river basins/sub-basins that are addressed with Task 1 fact sheets.

Table 40: Number of fact sheets completed for each of the four categories and country groups. Related international river basins and sub-basin for each country group are listed.

Category	Country Group	International River Basins (<i>highlighted in bold</i>) and Sub-Basins Addressed in Task 1b Fact Sheets	Number of Fact Sheets
Category I		Danube, Elbe, Meuse-Meuse, Oder, Rhine, Ems, Scheldt	8
	UK-IE	Shannon, international rivers of the North Western RBD (including Erne, Foyle), Bann	
Category II	ES-PT	Duero/Douro, Guadiana, Miño/Minho, Lima/Limia, Tajo/Tejo	13
	ES-FR-AD	Garonne , Nive, Nivelle, Bidasoa, Ebro, Segre	
	EL-AL-MK	Lake Prespa as part of the Drin/Drim; Aoos/Vjosa	
	IT-FR-CH	Po , Ticino/Lago Maggiore, Adda/Lake Como	
	IT-SI	Isonzo/Soca	
	FR-CH-IT	Rhone , Doubs, Allaina, Arve, Lac Lemane/Lake Geneva	
	LV-EE	Gauja/Koiva	
	EE-LV-RU	Narva (including Lake Peipsi/Chudkoe, Lake Pihkva/Pskovskoye)	
	FI-NO-(RU)	Pasvik/Paatsjoki, Naatamo, Teno/Tana	
	FI-RU	Tuloma/Tuulamaajoki, Jakobselv, Kemijoki, Oulujoki, Kem/Viena, Vuokis, Jänisoki, Koutajoki, Kiteenjoki-Tohmajoki, Hitolanjoki, Juustilanjoki, Saimaa Canal, Hounijoki, Tervajoki, Vilajoki, Kaltonjoki, Urpalanjoki, Vaalimaanjoki	
	SE-FI-NO	Torneälven/Tornionjoki	
	SE-NO	Signaldalselva, Malselvvassdraget/Malangen, Skjomavassdraget, Luleälven, Umeälven, Piteälven, Angermanälven, Indalsälven, Dalälven, Hellemovassdraget, Kobbelva, Fagerbakkvassdraget, Saltelva, Ranavassdraget, Rossaga, Vefsna, Verdalsvassdraget, Stjordalsvassdraget, Nidelva, Glomma, Klarälven/Trysil - Göta alv/Vänern Göta/ (including the Sub—basins Norsälven/Byälven/Upperudälven) Haldenvassdraget/Enningsdal, Strömsan	
Category III	PL-MD-UA	Dniester/Dnistr/Nistru	7
	LT-LV	Lielupe, Venta	
	LT-LV-RU-BY	Dauga/Sapadnaja Dwina, Nemunas/Nieman/Neman/Nyoman, Neris/Wilia	
	BG-TR	Rezovska/Mutludere, Veleka	
	EL-BG	Mesta-Nestos, Struma-Stymonas	
	DE-DK	Vidaa/Wiedau, Krusaa/Krusau, Jardelunde Groeft/Jardelunder Graben/Bongsieler Kanal	
	PL-CZ-SK-LT-BY-UA	Vistula, Bug, Poprad, Dunajec	
Category IV	PL-RU	Swieza, Jarft	3
	EL-BG-TR	Maritsa-Evros/Meric	
	EL-MK-RS	Axios/Vardar	
	IT-CH	Adige/Etsch	

Swedish-Norwegian river basins and international coordination

The international river basins shared between Sweden and Norway, have been allocated to Category 2 although no *single* international body as coordination platform is in place. However, the existing coordination bodies act via an internationally aggregated, clear and functioning mechanism that can be set equal with a single international coordinating body. The analysed results for the SE-NO river basins regarding international cooperation correspond well to the expected good degree of international coordination under Category 2.

The international coordinating bodies are clearly defined between the countries, are represented by the respective River Basin District authorities on the Swedish and Norwegian side of the border and exchange effectively on international river basin management matters.

Sweden and Norway share a large number of international river basins, which either cover high percentage of catchment area in Sweden or Norway. Even if a international river basin consists of two national RBDs, SE and NO earmarked the internationally shared basins with only one international RBD name (e.g. the international river basin of the Luleälven covers 3% of the RBD Nordland in Norway and 97% of the RBD Bothnian Bay in Sweden. However, to simplify international coordination SE and NO agreed to use only one internationally agreed RBD name: Bothnian Bay).

The fact sheets were prefilled by Task 1b experts, supplemented through interviews with technical experts, representatives of the basin sharing countries and international river basin organisations. Finally, the sheets were validated by respective members of the EC Strategic Coordination Group. Precisely, comments have been provided from 17 EU MS and one Third Country⁶². In addition, comments from all seven international river basin organisations have been received. All comments have been integrated in the fact sheets and are integral part of the analysis.

Hence, the information provided in the fact sheets was – to a large extent - extracted into the overview table of the international river basins/sub-basins to serve the quantitative analysis. Further, the information was used for qualitative analysis. For details see Section 24.1.

Fact sheets for Task 1b

31 fact sheets have been completed:

8 facts sheets for Category 1, 13 for Categories 2, 7 for Category 3 and 3 for Category 4.

24.4 Analysis

105 international European river basins including 30 international sub-basins have been analysed and respective results are presented in Section 25. Within specific analysis international river basins have been strictly separated from sub-basins in order to prevent any double counting (e.g. regarding catchment areas). The analysis was guided by key questions (agreed part of the Inception Report) to meet the objectives of Task 1b:

Analytical questions for task 1b

⁶²The SCG members of the following EU MS provided comments: AT, BE (Wallonia), BG, DE, DK, FI, HU, IE, IT, LU, LT, NL, NO, LV, SE, SK, UK and RO. Comments were also received by representatives from the international river commission of the Danube, Elbe, Ems, Meuse-Maas, Oder, Rhine and Scheldt.

Basic information on Task 1b international river basins

- Number of international river basins and sub-river basins investigated and their names?
- What is the total area of all and each international river and sub-river basins?
- What is the river basin area share of the EU MS/Third Country in each international river basin?
- Which and how many European countries are sharing investigated international river basins?

International coordination/cooperation mechanisms and arrangements

- In which international river and sub-basins are coordination/cooperation mechanisms applied?
- What types of coordination and cooperation mechanisms are applied (e.g. formal agreements)?
- Are international coordination bodies in place to facilitate international cooperation?
- How are Third Countries involved in international cooperation?
- Are all EU MS/Third Countries cooperating under existing cooperation mechanisms or are some countries not part of it?
- Are different types of cooperation mechanisms (agreements) influencing the degree of international cooperation?

International River Basin Management Plans

- Has an international RBMP according to the WFD been developed and in which river basins?
- Will an international RBMP be developed during the next EU WFD cycles?
- Is the international RBMP (if available) linked to the national RBMP?

Joint/coordinated activities for international river basins

- Have the cooperating countries established joint activities within international cooperation?
- What are key joint activities of basin-wide importance in the selected international river basins?
- How are these joint activities distributed in the international basins regarding implementation?
- What is the estimation of the level of coordination considering joint cooperation activities?
- Have the cooperating countries developed and agreed joint methodologies for implementation?
- Are cooperating countries implementing agreed joint methodologies/approaches in practice?

Impact of EU WFD enforcement

- Did the enforcement of the EU WFD impact and improve international coordination in Europe?
- When and which changes occurred due to EU WFD enforcement?

Challenges/obstacles in international cooperation and future steps

- Which key challenges/obstacles do exist or did even hinder the international cooperation so far?
- In case of significant challenges/obstacles, is improvement planned?
- Are any coordination activities planned for the future and which ones?

Due to the heterogeneity of the collected data, the analysis refers (i) to all international basins as a whole in an aggregated way and (ii) in a disaggregated way for individual river basins. Aggregated findings are presented for aspects that are comparable and characterise international basins as a whole (e.g. catchment area size; national area shares; EU MS/Third Country share; agreements Y/N; international RBMPs Y/N; Joint cooperation activities Y/N; etc.). When it comes to e.g. specific coordination mechanisms in individual river basins, information can neither be aggregated nor classified but needs to be described specifically on a case-to-case basis. Results refer – wherever possible – to the four categories, which already show a certain degree of international cooperation.

Some analyses are presented in a quantitative way whereas some findings can be only expressed in a descriptive, qualitative way.

25 Results on international coordination mechanisms

This chapter presents the results of the analysis regarding 105 international river basins/sub-basins and their coordination and cooperation mechanisms. As stated in section 24, the 105 basins consist of 75 international basins and 30 international sub-basins. International sub-basins have been excluded from some quantitative analysis to prevent any double counts. Therefore, results for international sub-basins are -in some cases - presented separately.

25.1 Basic information on international river basins

The catchment area of the investigated international river basins covers approximately 3,3 million km² of the European surface area. Almost 80% of this area is located on EU MS territory and the remaining 20% on territories of Third Countries. Table 41 provides a complete list of the 75 international river basins illustrating the number and names of EU Member States and Third Countries that share the international basins. Additionally, the river basin area (km²) in the EU MS and Third Countries as well as the total area of the international basins is shown. The overview table in Annex 1 provides more detail and also shows the national area shares of each EU MS and Third Country for each international basin.

Table 41: List of 75 international river basins (in alphabetical order) analysed within Task 1b showing EU MS and Third Countries sharing each basin, the total river basin area (km²) and respective shares in EU and/or Third Country territory.

Name(s) of International River Basins	Number of Riparian Countries		River Basin Size [km ²]			EU MS in International River Basin	Third Countries in International River Basin
	EU MS	Third Countries	EU MS	Third Countries	Total River Basin		
Adige/Etsch	1	1	11.970	130	12.100	IT	CH
Angermanälven	1	1	30.349	1.597	31.946	SE	NO
Aoos/Vjosa	1	1	2.154	4.365	6.519	EL	AL
Axios/Vardar	1	2	3.212	20.536	23.748	EL	MK, RS
Bann	2		8.127		8.127	IE, UK	
Dalälven	1	1	27.843	1.465	29.308	SE	NO
Danube	10	9	601.567	205.685	807.252	AT, BG, CZ, DE, HU, IT, PL, RO, SI, SK	MD, ME, MK, RS, UA
Daugava/Sapadnaja Dvina	2	1	28.940	53.884	82.824	LT, LV	RU, BY
Dniester/Dnistr/Nistru	1	2	232	72.100	72.332	PL	MD, UA
Drin/Drim		3		22.373	22.373		AL, MK, RS, ME
Duero/Douro	2		97.714		97.714	ES, PT	
Ebro	2	1	86.008	466	86.474	FR, ES	AD, ES
Elbe	4		150.823		150.823	AT, CZ, DE, PL	
Ems	3		17.802		17.802	DE, NL	
Fagerbakkvassdraget	1	1	20	1.002	1.022	SE	NO
Garonne	2		80.677		80.677	FR, ES	
Gauja/Koiva	2		14.386		14.386	EE, LV	
Glomma	1	1	430	42.591	43.021	SE	NO
Guadiana	2		67.052		67.052	ES, PT	
Haldenvassdraget/Enningsdal	1	1	578	1.935	2.513	SE	NO
Hellemovassdraget	1	1	16	1.543	1.559	SE	NO
Indalsälven	1	1	24.763	2.153	26.916	SE	NO
Isonzo/Soca	2		3.400		3.400	IT, SI	
Jakobselv	1	1	174	86	260	FI	RU
Jardelund/Groeft/Jardelunder Graben	2		742		742	DE, DK	
Jarft	1	1	210	117	327	PL	RU
Kemijoki(Viena)	1	1	1.297	26.403	27.700	FI	RU
Kemijoki	1	2	49.467	1.660	51.127	FI	NO, RU
Klarälven/Trysil/Göta Älv/Vänern/Göta	1	1	42.982	8.187	51.169	SE	NO
Kobbelva	1	1	10	956	966	SE	NO
Krusaa/Krusau	2		21		21	DE, DK	
Lielupe	2		17.800		17.800	LT, LV	
Lima/Limia	2		2.506		2.506	ES, PT	
Luleälven	1	1	24.506	758	25.264	SE	NO
Malselvassdraget/Malangen	1	1	209	6.774	6.983	SE	NO
Maritsa-Evros_Meric	2	1	38.570	14.650	53.220	BG, EL	TR
Mesta-Nestos	2		5.613		5.613	BG, EL	
Meuse-Maas	5		34.364		34.364	FR, BE, DE, LU, NL	
Miño/Minho	2		17.080		17.080	ES, PT	
Naatamo	1	1	2.354	553	2.907	FI	NO
Narva/including Lake Peipsi, Lake Pihkva)	2	1	20.100	36.100	56.200	EE, LV	RU
Nemunas/Nieman/Neman/Nyoman	2	1	52.057	45.943	98.000	LT, PL	BY, RU
Nidelva	1	1	293	3.368	3.661	SE	NO
North Western (its international rivers)	2		12.300		12.300	IE, UK	
Oder	3		124.049		124.049	CZ, DE, PL	
Oulujoki	1	1	22.509	332	22.841	FI	RU
Pasvik/Paatsjoki	1	2	14.492	21	14.513	FI	NO, RU
Piteälven	1	1	11.186	113	11.299	SE	NO
Po	2	1	70.326	3.847	74.173	FR, IT	CH
Pregolya	2	1	7.731	7.052	14.783	LT, PL	RU
Ranavassdraget	1	1	270	4.227	4.497	SE	NO
Rezvovska/Multudere	1	1	183	555	738	BG	TR, ES
Rhine	8	1	169.170	27.930	197.100	FR, AT, BE, DE, IT, LU, NL	CH
Rhone	1	1	88.977	7.679	96.656	FR	CH
Rossaga	1	1	193	2.559	2.752	SE	NO
Salteva	1	1	119	1.861	1.980	SE	NO
Scheldt	3		36.416		36.416	FR, BE, NL	
Shannon	2		17.963		17.963	IE, UK	
Signalälven	1	1	46	1.471	1.517	SE	NO
Skjomavassdraget	1	1	160	1.436	1.596	SE	NO
Stjordalsvassdraget	1	1	46	2.231	2.277	SE	NO
Struma-Strymonas	2	1	18.078	0	18.078	BG, EL	MK, RS
Swieza	1	1	162	1.027	1.189	PL	RU
Tajo/Tejo	2		71.187		71.187	ES, PT	
Teno/Tana	1	1	5.133	11.314	16.447	FI	NO
Torneälven/Tornionjoki	2	1	39.980	284	40.264	FI, SE	NO
Tuloma/Tuulomajoki	1	1	3.241	22.559	25.800	FI	RU
Umeälven	1	1	26.561	268	26.829	SE	NO
Vefsna	1	1	548	4.021	4.569	SE	NO
Veleka	1	1	792	203	995	BG	TR
Venta	2		11.692		11.692	LT, LV	
Verdalsvassdraget	1	1	102	1.595	1.697	SE	NO
Vidaa/Wiedau/Rudboel/See/Ruttedüller/See)	2		1.342		1.342	DE, DK	
Vistula	2	1	170.656	23.768	194.424	PL, SK	
Vuoksi	1	1	52.697	15.805	68.502	FI	RU
Total			2.546.722	695.772	3.266.263		

Table 38 lists the names and numbers of EU Member States and Third Countries in investigated international sub-basins as part of Task 1b as well as figures on river basin area (km²).

Table 42: List of the 30 investigated international sub-basins (in alphabetical order) analysed within Task 1b showing EU MS and Third Countries sharing each sub-basin, the total sub-basin area (km²) and respective shares in EU and/or Third Country territory.

Name(s) of International Sub-Basins	Sub-Basin of International River Basin	Number of Riparian Countries		Sub-Basin Size (km ²)			EU MS in International Sub-Basin	Third Countries in International Sub-Basin
		EU Member States	Third Countries	in EU-MS	in Third Countries	Total Sub-River Basin		
Adda/Lake Como	Po	1	1	7.448	479	7.927	IT	CH
Allaine	Rhone and Doubs	1	1	798	322	1.120	FR	CH
Arve	Rhone	1	1	1.660	400	2.060	FR	CH
Bidasoa	Adour-Garonne RBD	2		710		710	FR, ES	
Bug	Vistula	1	1	19.284	20.136	39.420	PL	BY, UA
Doubs	Rhone	1	1	7.500	210	7.710	FR	CH
Dunajec	Vistula	2		4.754		4.754	PL, SK	
Erne	North Western RBD	2		4.338		4.338	IE, UK	
Foyle	North Western RBD	2		2.919		2.919	IE, UK	
Hiitolanjoki	Vuoksi	1	1	1.029	386	1.415	FI	RU
Houhijoki	Vuoksi	1	1	370	252	622	FI	RU
Jänisjoki	Vuoksi	1	1	1.988	1.872	3.860	FI	RU
Juustilanjoki	Vuoksi	1	1	178	118	296	FI	RU
Kaltonjoki	Vuoksi	1	1	122	65	187	FI	RU
Kiteenjoki-Tohmajoki	Vuoksi	1	1	760	835	1.595	FI	RU
Koutajoki	Vuoksi	1	1	4.915	13.885	18.800	FI	RU
Lac Léman/Lake Geneva	Rhone	1	1	234	348	582	FR	CH
Lake Prespa	Drin/Drim	1	2	291	1.235	1.526	EL	AL, MK
Nive	Adour-Garonne RBD	2		1.033		1.033	FR, ES	
Nivelle	Adour-Garonne RBD	2		374		374	FR, ES	
Poprad	Vistula	2		2.077		2.077	PL, SK	
Saimaa Canal	Vuoksi	1	1	112	62	174	FI	RU
Segre	Ebro/Rhone	2	1	19.224	466	19.690	FR, ES	AD
Sembre	Meuse	1		1.103		1.103	FR	
Strömsån	Haldenvassdraget	1	1	252	5	257	SE	NO
Tervajoki	Vuoksi	1	1	108	96	204	FI	RU
Ticino/Lago Maggiore	Po	1	1	3.229	3.370	6.599	IT	CH
Urpalanjoki	Vuoksi	1	1	467	90	557	FI	RU
Vaalimaanjoki	Vuoksi	1	1	239	6	245	FI	RU
Vilajoki	Vuoksi	1	1	252	92	344	FI	RU
Total				87.768	44.730	132.498		

EU Member States and Third Countries sharing international river basins

International river basins are sometimes shared exclusively between EU MS but also between EU MS and Third Countries, which may influence international coordination regarding governance, formalities and agreements. Figure 11 provides an overview on EU MS and Third Countries that share European international river basins.

23 international basins (= 30% of the 75 investigated river basins) are shared exclusively between EU MS and these are summarised in Table 43. The investigated international river basins Drin/Drim is exclusively shared between Third Countries (AL, MK, RS & ME). The international Drin/Drim river basin was included in the Task 1b list as Lake Prespa - shared between one EU MS and Third countries (EL, AL, MK) - is a sub-basin of it and was considered as important to be analysed regarding coordination/cooperation mechanisms.

More than 70% of the European international river basins are shared between EU MS and Third Countries (Figure 12 a & b). The remaining 30% (=23 international river basins) are exclusively shared on European Union territory and therefore between EU MS.

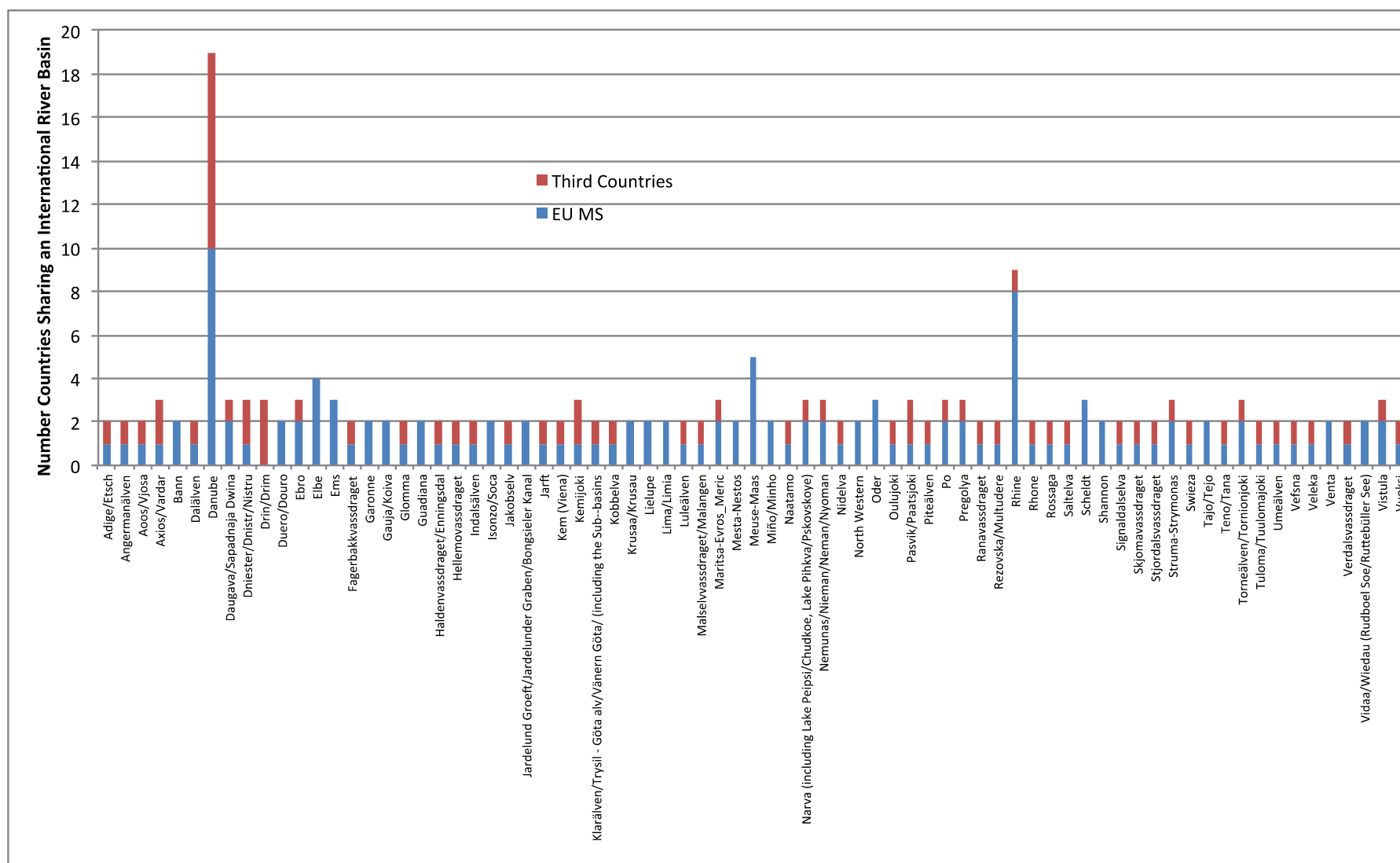
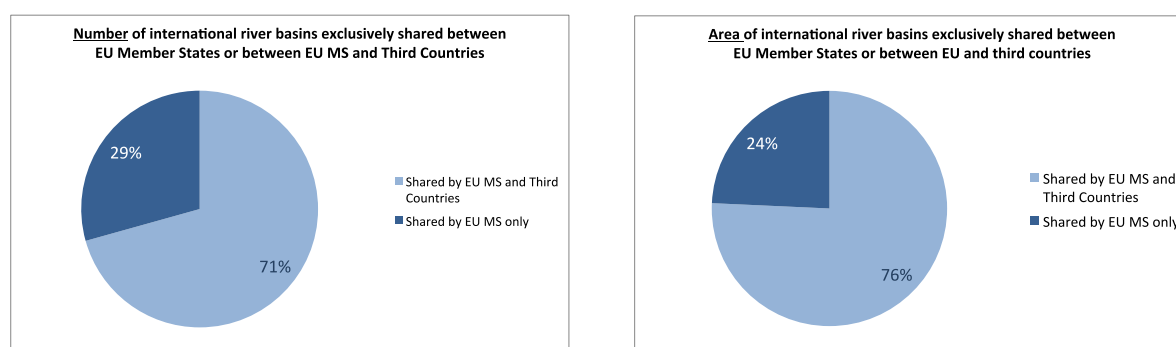


Figure 11: The 75 European international river basins (*in alphabetical order*) and illustration of basin share between exclusively EU MS or EU MS and Third Countries.

Table 43: List of 23 international river basins that are exclusively shared between EU MS.

EU MS	International River Basin shared exclusively by EU MS
AT, CZ, DE, PL	Elbe
BG, EL	Mesta/Nestos
CZ, DE, PL	Odra
DE, DK	Widau/Vida, Krusau/Krusa, Jardelund Groeft/Jardelunder Graben
DE, NL	Ems
EE, LV	Gauja/Koiva
ES, PT	Duero/Douro, Guadiana, Miño/Minho, Lima/Limia, Tajo/Tejo
ES, FR	Garonne
FR, BE, NL	Scheldt
FR, BE, DE, LU, NL	Meuse-Maas
IE, UK	Bann, International rivers of North Western RBD, Shannon
IT, SI	Isonzo/Soca
LT, LV	Lielupe, Venta
PL, SK	Vistula

**Figure 12 (a and b):** Number (left) and river basin area (right) of the 75 European international basins shared between EU MS or EU MS and Third Countries.

Area of international river basins and number of countries sharing these

Figure 13 shows that most international river basins have a catchment area size smaller than 100.000 km². Out of the 75 international basins, 3 are larger than 200.000 km² (Danube, Rhine, Vistula) and five are larger than 100.000 km² (Elbe, Odra, Nemunas, Duero, Rhone). The red curve represents the total catchment area of the river basins ranking them accordingly. The graph illustrates the very uneven size distribution of the international basins showing that 25% of the total EU river basin area under this study is covered by only one international basin (Danube), another 25% by five basins (Rhine, Vistula, Elbe, Odra, Nemunas). Hence, 6 international river basins cover half of the EU river basin area, while the remaining 69 basins represent the rest.

The Danube River Basin is Europe's largest but also the most international basin (larger than 800.000 km² and 19 countries sharing the basin). The Danube is followed by the Rhine River Basin, which is shared by 9 countries, the Meuse by 5 and e.g. the Ems, Daugava, Nemunas and Struma by 4 countries. All other river basins are either shared by three or two countries.

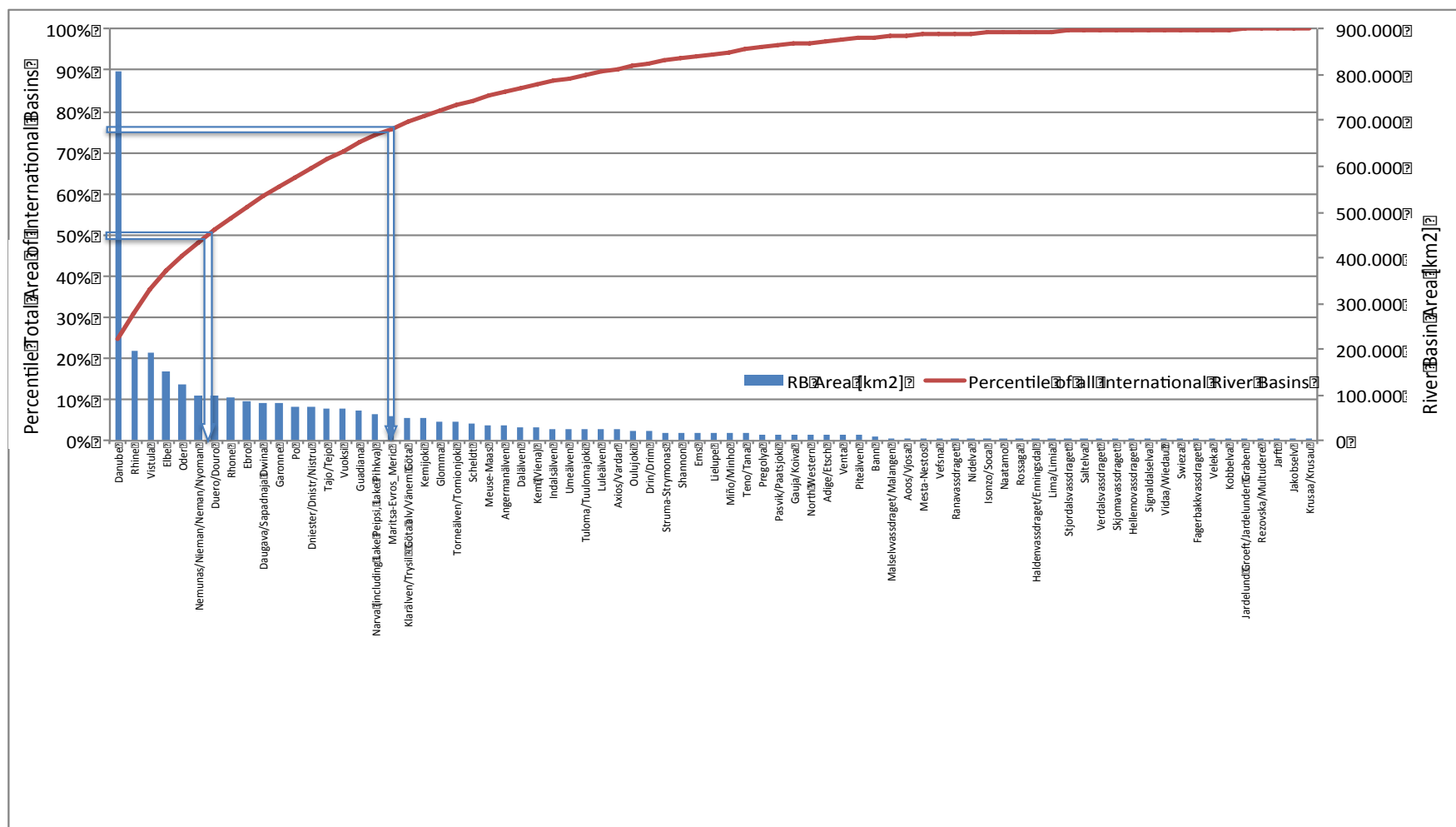


Figure 13: River basin area (km²), related percentile for the 75 European international river basins indicating related EU river basin area shares.

25.2 International coordination/cooperation mechanisms & arrangements

Basic coordination and cooperation in international river basins

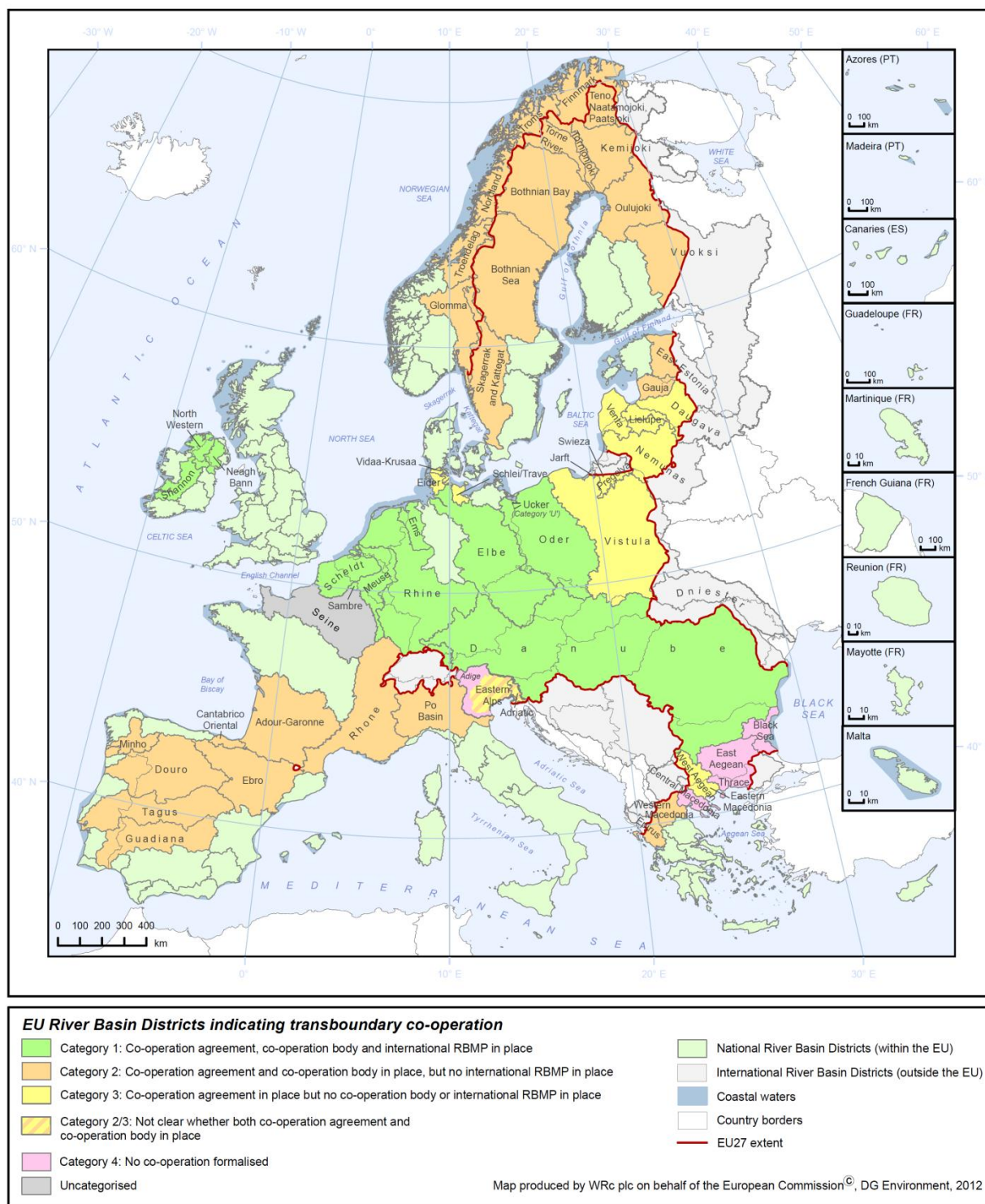
Basic coordination and cooperation patterns in European international river basins were analysed through a screening of formal agreements (including conventions), international coordinating bodies like international river basin organisations/commissions and/or if an international WFD RBMP has been developed.

Assigning the 105 international river basins and sub-basins to the four categories that indicate a basic degree of international coordination and cooperation between basin sharing countries (see also section 24.2), Table 44 shows that 12 international river basins/sub-basins (11%) fall into Category I (highest degree of international coordination), 71 (68%) into Category II, 19 (18%) into Category III and 3 (3%) into Category IV (lowest degree of international coordination). It is very rare that no international cooperation agreements at all are in place. This is only the case for three international river basins, whereas the other 102 operate under a coordination mechanism that at least consists of a formal international agreement (19 river basins) but ideally also operate via an international coordinating body (83 river basins of categories I and II) and/or even developed an international RBMP (12 river basins). Map 3 illustrates cooperation in Europe referring to the four categories. A detailed overview of all international basins river and sub-basins (including also the names) allocated to each category can be found in Annex 1.

Table 44: Number of European international river and sub-basins assigned to the four categories indicating a basic degree of international coordination and cooperation between basin sharing countries.

Category	Coordination & Cooperation Degree	Number International River	Number of International Sub-Basins
I	International river basins/sub-basins with formal international agreement & international coordinating body & international WFD RBMP	12	2⁶³
II	International river basin/sub-basins with formal international agreement & international coordinating body BUT no international WFD RBMP	47	24
III	International river basin/sub-basins with formal international agreement BUT no international coordinating body & no international WFD RBMP	15	4
IV	International river basin/sub-basins with no formal international agreement & no international coordinating body & no international WFD RBMP	3	

⁶³ Erne and Foyle sub river basins are integral part of the international RBMP that was developed for the North Western RBD.



Map 2: Overview on EU River Basin Districts indicating international cooperation and coordination according to the four Task 1b cooperation categories (EC, Version 29 october 2012).

Considering coordination and cooperation exclusively between EU MS (EU territory without Third Countries) in relation to river basin area (km²) of the 75 Task 1b international basins instead of river basin numbers, Figure 14 a & b show the following results:

The majority of the total EU river basin area is covered by international river basins allocated to Categories I & II, which means that 86% (2,176,951 km²) of the river basin area within the EU is coordinated with a very high and high degree of cooperation between EU MS. 12% of the total EU river basin area is covered by basins under Category III (moderate coordination degree between basin sharing countries) and only 2% of the area falls into Category IV (low coordination degree). Table 45 confirms these findings reflecting the basic level for cooperation for international river basin area (km²) and the four coordination categories at the level of individual EU MS and Third Countries sharing international basins.

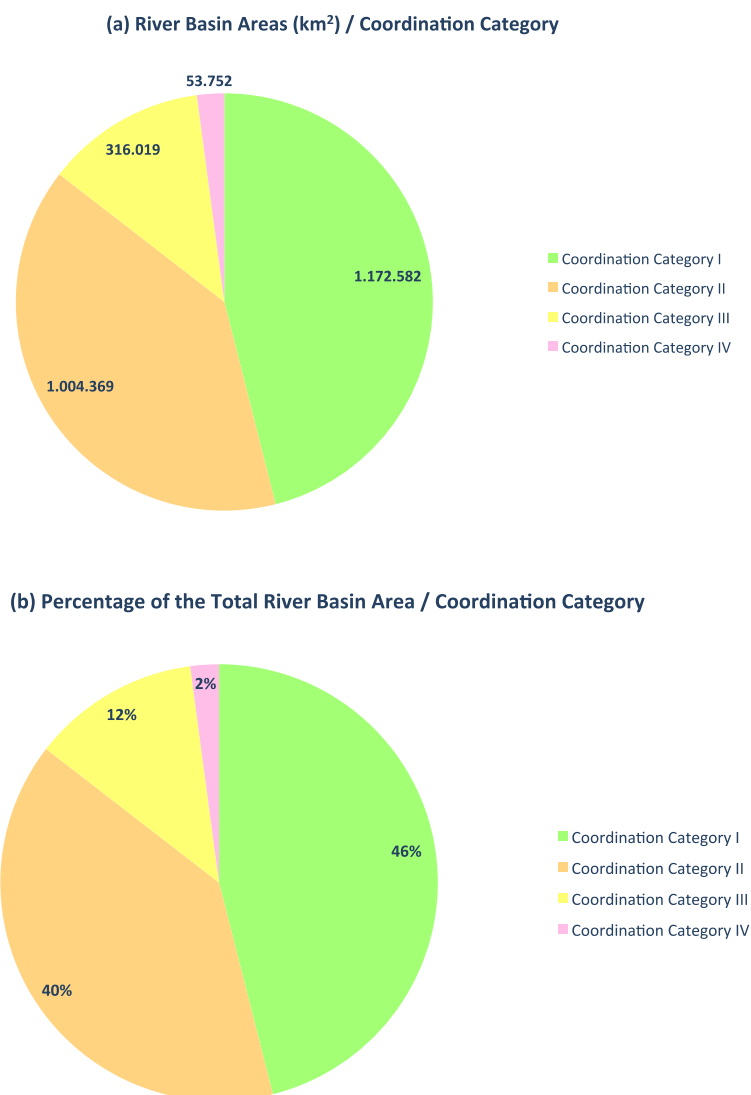


Figure 14 (a & b): Allocation of the area of international river basins exclusively on EU territory (Third Country are excluded) to the four different cooperation categories indicating the degree of cooperation on EU territory. Figure (a) shows the river basin area in km² and Figure (b) the corresponding percentage for each of the four coordination categories. (This analysis does not include sub-basins and refers exclusively to the 75 international river basins.)

Table 45: Allocation the four coordination categories per EU MS and Third Countries in relation to river basin area (km²). This analysis does not include sub-basins and refers exclusively to the 75 international river basins.

	Coordination and Cooperation Category				Total
	1	2	3	4	
EU MS	Total				
AT	83.714				83.714
BE	30.568				30.568
BG	47.235		14.542	35.230	97.007
CZ	78.899				78.899
DE	290.178		999		291.177
DE/NL	482				482
DK			1.106		1.106
EE		18.335			18.335
EL		2.154	10.124	6.552	18.830
ES		293.726			293.726
FI		165.951			165.951
FR	51.235	169.746			220.981
HU	93.030				93.030
IE	27.359				27.359
IT	625	71.286		11.970	83.881
LI	160				160
LT			66.129		66.129
LU	2.595				2.595
LV		16.151	42.434		58.585
NL	45.620				45.620
PL	107.838	232	178.728		286.798
PT		47.902			47.902
RO	238.506				238.506
SE		216.620			216.620
SI	16.422	2.267			18.689
SK	47.084		1.957		49.041
UK	11.031				11.031
Total	1.172.582	1.004.369	316.019	53.752	2.546.722

	Coordination and Cooperation Category				Total
	1	2	3	4	
Third Country	River Basin Area [km ²]				
AD		466			466
AL	126	18.538			18.664
BA	36.636				36.636
BY, RU			99.827		45.943
CH	29.739	11.526		130	41.395
CZ, UA, BY			23.768		23.768
HR	34.965				34.965
MD	12.834	19.400			32.234
ME		7.300			7.300
MK	109	3.840		20.535	24.484
MK, RS			0		0
NO		104.311			104.311
RS	81.335			1	81.336
RS, ME		4.360			4.360
RU		102.920	8.196		111.116
TR			758	14.650	15.408
UA	30.571	52.700			83.271
Total	233.615	318.061	132.549	35.316	719.541

Coordinating bodies in international river basins

The implementation of international formal agreements and river basin-wide management issues is either supported and performed via coordinating bodies (e.g. international river commission, joint transboundary commissions, water authority commissions) that serve as facilitation platforms between the basin sharing countries and/or other mechanisms are in place that ensure cooperation.

The analysis shows, that international coordination bodies are operative in 83 international river basins and sub-basins for approximately 85% of EU river basin area. In 19 international basins and sub-basins with formal international agreements, coordination is undertaken without a coordinating body. As stated above, only 3 international basins have no coordination mechanism in place at all.

Table 46 lists all 27 international coordinating bodies operating in the international river and sub-basins under the cooperation categories I and II, their coordination role in terms of river basin area for which cooperation activities are facilitated between countries, their permanently employed personnel (e.g. in Secretariats of international river commissions), the percentage of joint activities and whether an international RBMP was developed. Detailed information on joint activities and their factual identification under certain agreements can be found in Section 25.3.

In general, international bodies coordinate river basin management issues and serve as cooperation platform for an international river basin area of approximately 2,7 million km² (according to Table 45 and Table 46). It can be said that RBMPs have been developed in basins with both high (13), low or no number of permanent staff (2). The ratio between river basin area and number of permanent staff is very unbalanced and likely results from the fact that EU WFD related aims, tasks and challenges for respective coordinating bodies in the different international river basins vary a lot. Therefore, it cannot be concluded that higher degree of coordination and cooperation results from a high number of permanent staff employed in coordinating bodies.

Table 46: List of international coordinating bodies in the international river basins and sub-basins under coordination categories I & II. Respective indication if an international RBMP has been developed, the number of permanent staff employed, the river basin area for international coordination and the percentage of joint activities.

Name of International Coordination Bodies in International River Basins and Sub-Basins	RBMP Y/N	Permanent Staff	River Basin Area (km ²)	% of Coordinated Activities
International Commission for the Protection of the Rhine River (ICPR)	Y	13	197.100	60%
International Commission for the Protection of the Danube River (ICPDR)	Y	8	807.252	70%
International Commission for the Protection of the Elbe River Against Pollution (ICPER)	Y	8	150.823	70%
International Commission for the Protection of the Odra River Against Pollution (ICPO)	Y	8	124.049	50%
International Meuse Commission (IMC)	Y	3	34.364	50%
International Scheldt Commission (ICS)	Y	5	36.416	80%
Ems Secretariat	Y	2	17.802	50%
North-South Water Framework Directive Coordination Group of all River basins shared by UK-IE)**	Y**	0	38.390	80%
Commission for the Development and Application of the Agreement (CADC) and Conference of the Parties of River basins shared by ES-PT	N	8	255.540	30%
Finnish-Norwegian Transboundary Water Commission of River basins: Naatamo, Teno/Tana, Pasvik/Paatsjoki	N	6	33.805	35%
Joint Finnish-Russian Commission on the Utilization of Frontier Waters	N	0	224.506	40%
Finnish-Swedish Border River Commission (BRC) / Finsk-svenska gränslämskommisionen (FSGK) of River basin: Torneälven/Tornionjoki	N	3	40.264	70%
Swedish-Norwegian Water District Authorities in mutual coordination in their shared international river basins	N	n.s.	283.598	30%
Transboundary Basin Committee of Sub-basin Allaine	N	1,5	1.120	60%
Communauté des Communes Sud-Pyrénées Basque of Sub-basins Nivelle, Bidasoa	N	0	1.084	30%
Consultation Group as mentioned in the Agreement of Sub-basin Doubs	N	0	7.710	60%
Community of Geneva municipalities of Sub-basin Arve, Lake Geneva	N	n.s.	2.642	40%
Comité de Rivière Transfrontalière du Segre of Sub-basin Segre, Ebro	N	3	86.473	0%
Syndicat Mixte d'Etude et d'Aménagement de la Garonne (SMEAG) of River basin: Garonne	N	0	80.677	70%
Lake Prespa Management Committee (PMCC)	N	3	1.519	30%
Joint Commission for the Protection of Italian-Swiss Waters Against Pollution (CIPAI) of River basin: Po	N	1	74.173	40%
Drinking Water Group (DCG) formed within the Consultation Process on Integrated Management of the Extended Drin River (Drin Dialogue)	N	0	22.373	0%
Commissione mista Permanente per l'idroeconomia / Permanent Italian-Slovenian Commission for Water Management of River basin: Soca	N	0	3.400	10%
Estonian-Russian Joint Commission on the Protection and Sustainable Use of Transboundary Waters of River basin: Narva, Lake Peipsi	N	0	56.200	60%
Joint Commission between Moldova and Ukraine under negotiation; River basin: Dniester	N	0	68.627	50%
Permanent Greek-Albanian Commission on Transboundary Freshwater Issues of River basin: Aios/Vjosa	N	0	6.519	0%
Working Group on Cooperation for Establishing and Managing of International River Basin District Gauja/Koiva	N	0	14.386	0%

** This coordination body developed 3 international RBMPs (Shannon, North Western, Bann).

Coordination tools and observer involvement in international river basins

Coordination mechanisms in international river basins make use of various 'tools' for cooperation between basin sharing countries. This may include the assembling of expert groups and/or task groups to discuss and advance specific technical issues related to international river basin management. Figure 15 demonstrates, that 66 (63%) of the 105 investigated European international river and sub-basins have technical expert groups in place that meet in most cases on a regular basis (>50%). In addition, plenary meetings are held frequently (usually once or twice a year) in 58 (55%) of the basins and in the frame of agreements or international river commissions to agree on key RBM issues. When it comes to the involvement of observers in international cooperation the majority of international basins (51%) does not formally integrate stakeholders, 34 (32%) made no specifications whereas 12 (11%) involve observers in their basin-wide work.

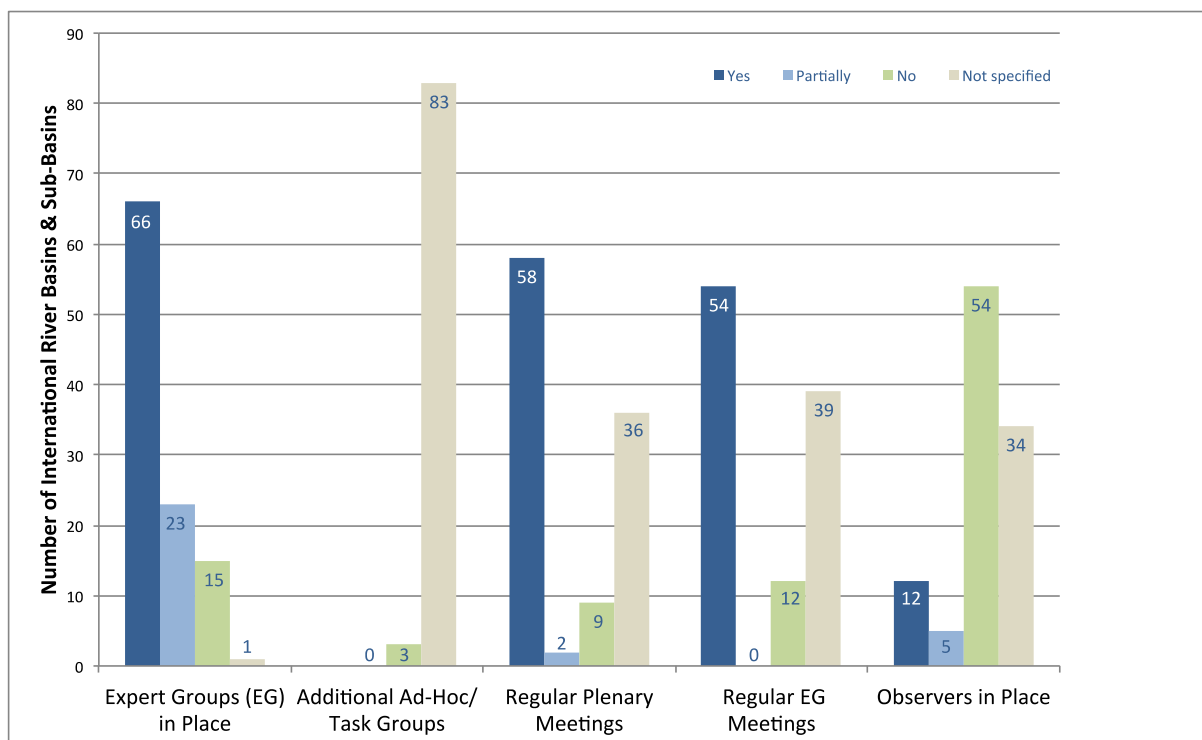


Figure 15: Expert Groups, regular meetings and observers in place for all 105 international river and sub-basins applied as coordination tools.

25.3 Joint activities and methodologies in international river basins

Coordination of joint activities in international river basins

The analysis of joint activities in European international river basins enables the sharpening of the basic findings on coordination and cooperation as outlined in the previous chapter.

Basin-wide implementation of joint activities is considered as a soft indicator for the degree of coordination and cooperation in WFD implementation. Overall **10 joint activities** have been analysed within Task 1b regarding their coordinated implementation in each international river basin: **joint** (1) SWMIs, (2) visions and management objectives, (3) transboundary monitoring, (4) coordinated/shared databases and/or GIS, (5) joint PoMs, (6) financial resources (7) budget supporting participation in meetings (8) communication strategy and public participation activities, (9) approach to consider future water demand, and (10) approach to set exemptions according to WFD Article 4.

In general, joint activities are identified and undertaken in the investigated international basins. Figure 16 provides an overview on the number of coordinated, joint activities (green bars/area) as well as on un-coordinated activities (blue bars/area) in each international river basin. It can be said that several activities are (as of today) not coordinated between basin sharing countries nor implemented to full extent (blue area in Figure 16). The reason for this is partly reflected in the fact sheets. Many EU MS indicated that the existence of different national WFD methods and implementation timelines hamper the implementation of joint activities. However, the light green bars in Figure 16 indicate that there are several issues where partial cooperation takes place and potential for increased cooperation in future exists. Coordination of joint activities often takes place informally (e.g. mutual learning on the expert level), and countries seem reluctant to enter formal coordination agreements/contracts.

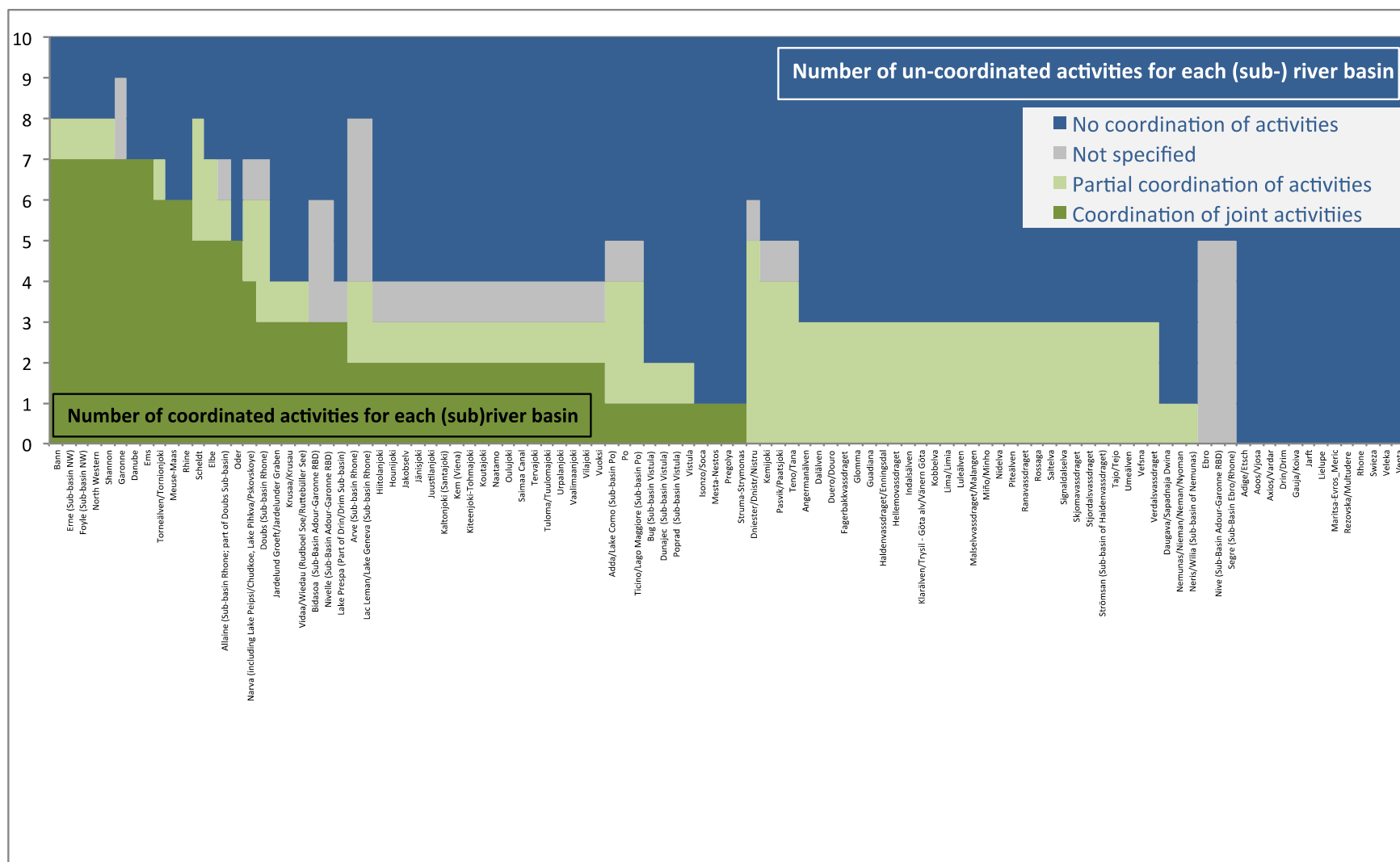


Figure 16: Number of coordinated joint activities as well as partially and un-coordinated activities in each of the 105 international river basins and sub-basins.

Figure 17 was developed for the purpose to (i) validate the initial assumptions on coordination/cooperation degree regarding the four coordination categories (see Section 25.2) and (ii) as a summarising representation of the joint cooperation activities.

For this evaluation, the average of all coordinated, partially and un-coordinated activities was calculated for the different categories of international river basins. Figure 17 describes that joint activities are coordinated to the highest extent (62%) in international river basins under cooperation Category I (=very high degree of cooperation). Joint activities are partly coordinated (23%) for river basins in Category II (=high degree of coordination). All categories include several activities out of the ten that are not coordinated at all, whereas the majority can be found in basins under Category III (87%) and IV (100%). These categories stand for a moderate to low level of international cooperation and coordination. This picture confirms the initial assumptions and validates the classification of river basins into the four coordination and cooperation categories (see Section 25.2).

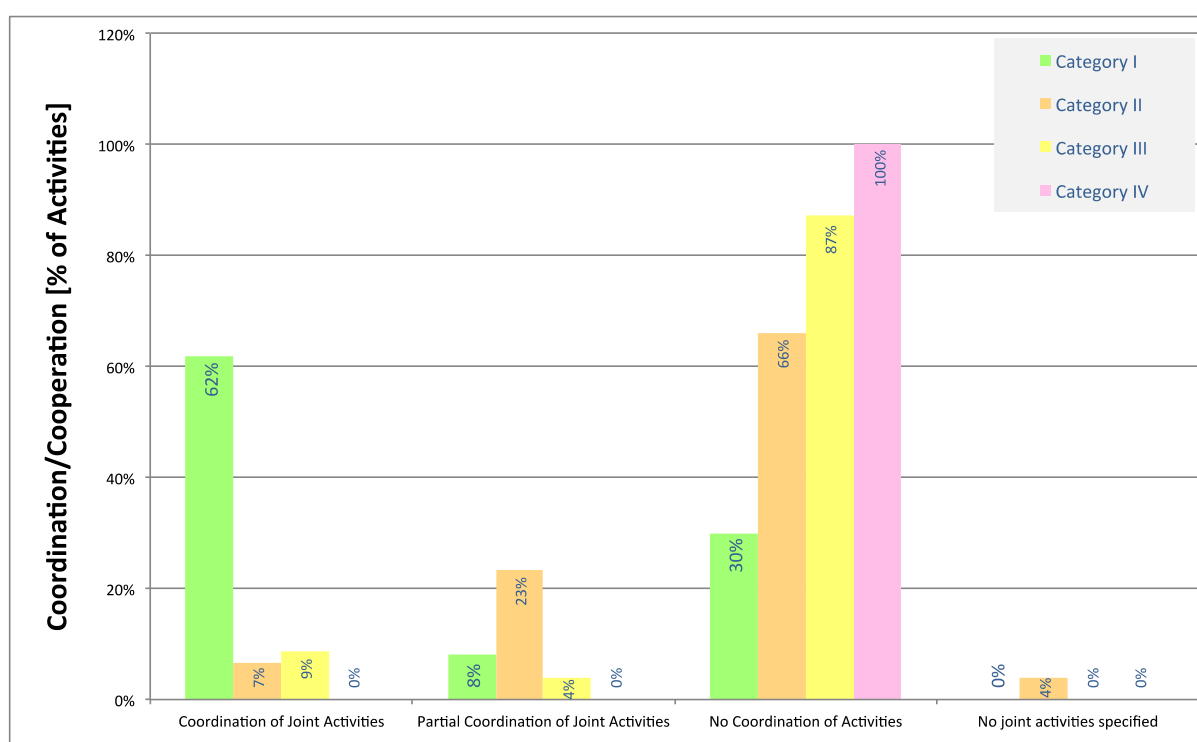


Figure 17: Average percentage of coordinated, partial and un-coordinated activities in the investigated international river basins. (This analysis does not include sub-basins and refers exclusively to the 75 international river basins.)

So far the analysis of joint activities did not differentiate the different topics. There remains the question for the most common/popular topics of joint activities. This assessment is represented in Figure 18 that ranks the 10 joint activities according to their respective degree of (partial) coordination.

Key joint activities coordinated in European international river basins are the identification of '*joint visions and management objectives*', the implementation of *joint/transboundary monitoring* and also the identification of joint *Significant Water Management Issues* (see Figure 18). No coordination and cooperation seems to take place in international basins when it comes to setting exemptions according to WFD Article 4 and to estimating future water demand. The findings in the fact sheets partly propose that these issues are rather dealt with on the national level.

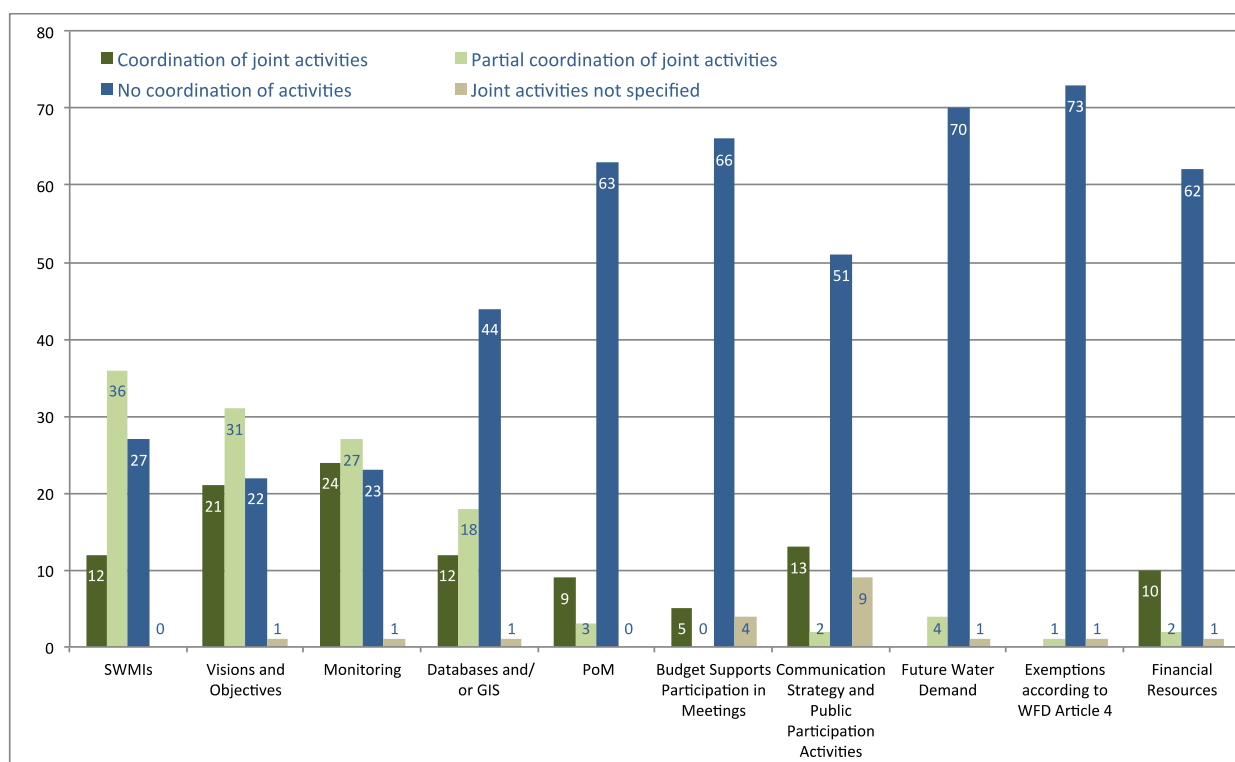


Figure 18: Number of specific key activities coordinated, partially coordinated, un-coordinated or not specified in the investigated European 75 international river basins.

Implementation of joint methods in international river basins

Within this study, the implementation of joint methodologies in European international river basins is considered as an indication of high degree coordination and cooperation between basin sharing countries as the effort for respective international consolidation is very high. Such methodologies may include e.g. joint designation of Heavily Modified Water Bodies or water status applying one approach on the basin-wide scale.

The analysis results show (see Figure 19) that some joint methods are generally in place in 30 international river basins and sub-basins (out of 105 = 29%), which is not the case for 44 basins (42%). For another 28 international basins, joint methods are partially in place while they are fully lacking in the three basins under coordination Category IV. When it comes to formal adoption and the continuous, practical implementation of joint methods within international river basins it can be concluded that these river basin management steps are not implemented in the majority of international basins. 96% of the international basins have not formally adopted joint methods and in 84% of the basins joint methods are not implemented in continuous practice.

However, for 57 international basins and sub-basins out of the 105 river basins (=54%) a strengthening of international coordination and cooperation can be expected in future due to the indication that joint methods will be fully or partly developed.

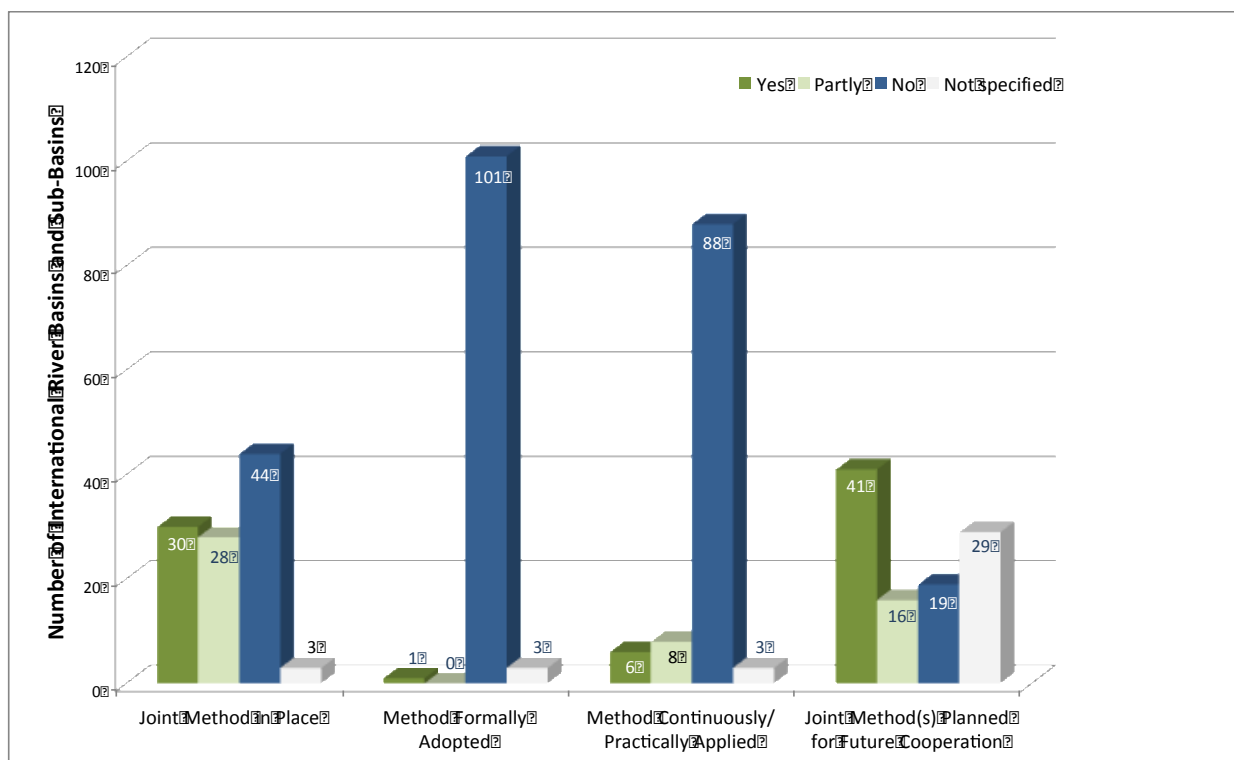


Figure 19: Current state of implementation and plans for joint/coordinated methods in the European international river basins and sub-basins.

25.4 International River Basin Management Plans

WFD Implementation cycle 2009

International River Basin Management Plans have been developed for 10 international river basins: Bann, Elbe, Ems, Danube, Meuse, Odra, Rhine, Scheldt, Shannon and the international rivers of the North Western RBD.

For the remaining 95 international river basins and sub basins no international RBMPs are available as of today.

Next WFD Implementation cycles 2015, 2021, 2027

47 international RBMPs are planned for development in international basins and sub-basins within the next WFD implementation cycles, whereas 37 international basins do not plan to develop international RBMPs. For the remaining 21 international basins and sub-basins it is so far not clear if international RBMPs will be developed.

In general, international RBMPs reflect river basin management issues of relevance for the basin-wide scale supporting the understanding of possible risks on water resources from a perspective that likely may not be considered on the national scale (e.g. the pollution of river basin discharge receiving sea may not per se be of importance for upstream countries). In the existing international RBMPs, the international management level (A-level) is usually clearly delineated from the national level (B-level) applying certain delineation criteria like catchment area size. For example, the international RBMPs of the Danube and Rhine, the international A-level addresses exclusively rivers with catchment areas larger than 4,000 km² respectively 2,500 km². Smaller international river basins like the ones of the Scheldt and Ems address all rivers and their water bodies - no threshold criteria for international river basin management was introduced.

Inter-linkage of the international and national RBMPs

When it comes to international RBMPs and their implementation, the linkage to the national level becomes of crucial importance. The majority of river basin management issues and measures addressed in the international RBMPs are implemented through the national level and respective governance as well as regulations adequately taking into account the international RBMPs are vital.

As of now and based on this study's information, it is difficult to draw conclusions in how far the latter is the case. However it can be said, that all of the 10 international RBMPs - available as of 2009 - certainly link to the national RBMPs and include specific information on the basin sharing countries and items of national RBMPs (the related fact sheets are provided in Annex 3, a separate document). More or less these include all WFD items but predominantly typology, delineation of water bodies, monitoring systems, PoMs (in most cases no joint Programme of Measures was developed for the international level) and exemptions according to WFD Article 4. Vice versa most of the national RBMPs refer to the international Management Plans and interlink to a certain degree (see Fact Sheets under Category 1 item 3a(4)). EU MS usually address the national part of international RBDs in separate RBMPs.

All of the International River Commissions highlight that the development of international RBMPs is considered a key success within their cooperation frameworks. None of them indicate key obstacles in coordinating and developing the international RBMPs. However, specific challenges are identified. These include the challenge to coordinate the parallel time-line to develop national and international RBMPs, which made feedback between the national and international level difficult during the first WFD cycle. Respective improvements are foreseen in many of the international basins. In addition, the joint identification of SWMIs, the harmonisation of results including water status, development of PoMs and economic analysis on the international scale were often seen as key challenges within the international coordination and cooperation framework.

Table 46 of Chapter 25.2 also provides information on international RBMPs. 28 international coordinating bodies in international river and sub basins are listed in relation to their responsibility in terms of river basin area for which cooperation activities are facilitated, their permanently employed personnel (e.g. in Secretariats of international river commissions) and whether an international RBMP was developed.

25.5 EU WFD impacts on international coordination and cooperation

The analysis results clearly show that for the majority international river basins and sub-basins improved international coordination and cooperation was achieved through the EU WFD. This is indicated for 81% of the basins, whereas for 9% the EU WFD brought along partial improvement (Figure 20). For 7% of the basins no improvement is analysed and might not be needed if good coordination is already in place. The latter was for example indicated for the Po river basin and its sub-basins Ticino/Lago Maggiore and Adda. For 3% of the basin no specification on improvement is indicated.

In many cases improvements through WFD implementation came along as of the enforcement date of the EU WFD in 2000. Other cases describe shifted improvement when specific cooperation agreements for international came into force. Such cases include the Vidå/Wiedau/Kruså/Krusau, river basins (DE/DK: 2005 Joint Declaration on the coordination of the management of transboundary basins), Narva and Gauja (EE/LV–2003 Agreement on co-operation for the protection and sustainable use of trans-boundary water courses), Nivelle and Bidasoa (ES/FR: 2006 & 2012 Toulouse Agreement and Gestion Locale et Participative des Rivières Transfrontalières des Pyrénées

Atlantiques), or Aoos/Vjosa (EL/AL: 2005 Agreement on the establishment of the permanent Greek - Albanian commission on transboundary freshwater issues” under the 2003 “Memorandum of Understanding and Cooperation in the field of environmental protection between the two countries).

It was often stated in the fact sheets that the legally binding character of the EU WFD supported the improvement of the implementation of water management issues on the basin-wide scale and strongly intensified international cooperation per se. Further, it is considered as an added value that the EU WFD significantly supported the improvement within international cooperation regarding a common understanding on the environmental objectives and their joint achievement. In addition, the EU WFD is considered to support the improved cooperation with countries that are not part of international agreements as well as with Third Countries.

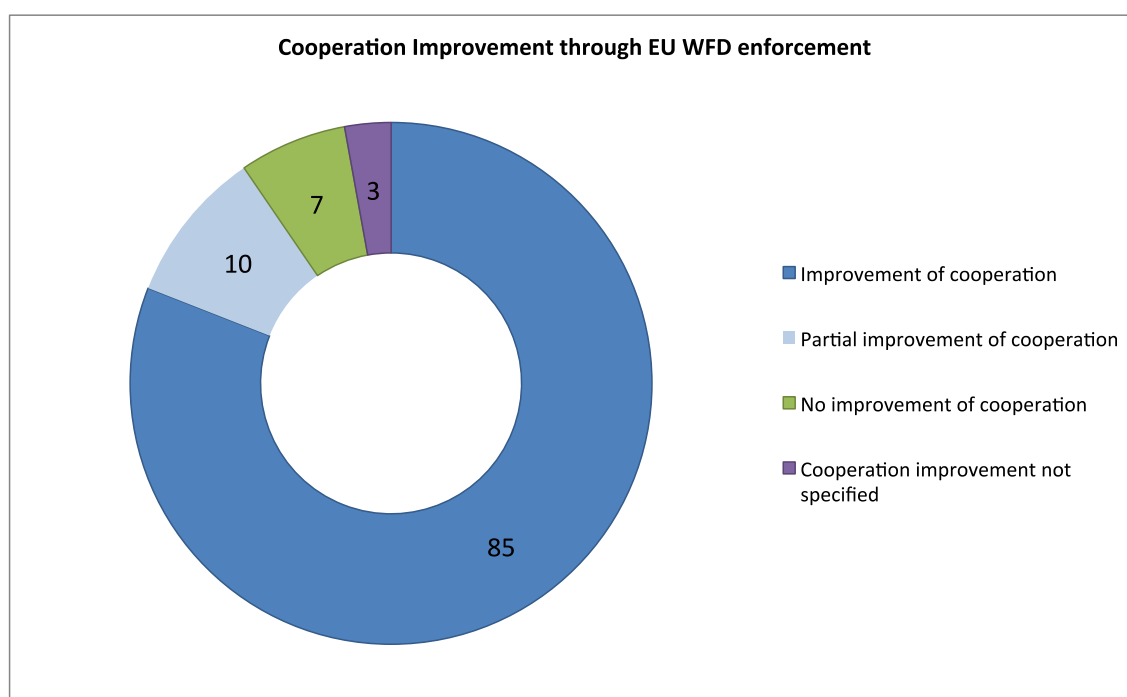


Figure 20: Indicated improvement of cooperation and coordination through EU WFD enforcement regarding in all 105 international river basins and sub-basins (figures are numbers of basins).

In summary, key items of improvement through EU WFD enforcement include common understanding of water management objectives to be achieved on the basin-wide level, development of an international RBMP, definition of Significant Water Management Issues, thematic maps that illustrate the outcomes on WFD requirements, overview on the water status in international river basins (surface waters and groundwater), improved joint monitoring network that also includes the biological quality elements, harmonisation of results and summary of PoMs towards harmonisation. These key items largely refer to international basins where international RBMPs have been developed.

25.6 Challenges, obstacles and successes in international coordination

Challenges in international coordination and cooperation

Challenges regarding coordination and cooperation in European international river basins are identified and show a broad spectrum of items regarding all basins. These include items like past and future development of international RBMPs, planned development of joint methods, harmonisation of results within the international frame and coping with different implementation timelines between cooperating countries.

While the previous analysis showed a rather mixed picture on coordination, the following analysis of future plans gives a rather optimistic view on potential improvements. Figure 21 shows a high proportion of ambitious plans for future cooperation.

90% of the international basins current and future challenges are identified in principle and respective improvement of these challenges is foreseen in 56% of the basins within the next implementation cycles.

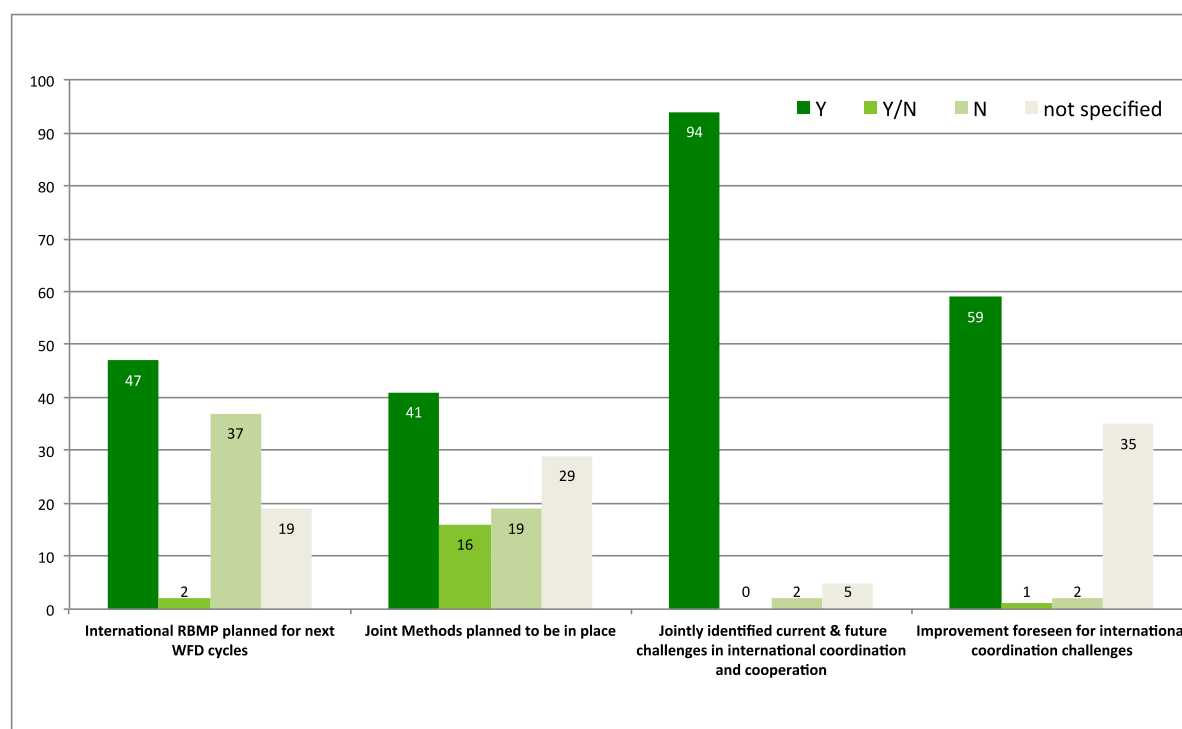


Figure 21: Identified areas of future challenges and improvements in international coordination and cooperation – addressing all 105 international river basins and sub-basins (figures are indicated in numbers).

Obstacles in international coordination and cooperation

For several international river basins, coordination and cooperation obstacles are indicated in the fact sheets. Cooperation obstacles are indicated to be caused through the following key issues:

Different administrative and legal frameworks in cooperating countries

General weak water management legislation

Fragmentation of responsibilities in cooperating countries

Insufficient cooperation mechanisms are in place

Political reasons that influence cooperation

Lack of international trust
Unbalanced national share in international river basin
Different timetables for the preparation of national RBMPshinder shared/international RBMPs
Limited experience in transboundary coordination of water resources
Information sharing between cooperating parties is difficult and complicated
Overall cooperation and implementation process is identified as slow
Water quality monitoring is not performed on a regular level for international harmonisation

Successes in international coordination and cooperation

The following successes regarding coordination and cooperation in European international river basins and sub-basins and in relation to the EU WFD implementation can be summarised as follows:

WFD enforcement and its impact on river basin management
2005 River Basin Analysis according to WFD Article 5
Jointly identified Significant Water Management Issues
2009 Development of national and international RBMPs
Enforcement and revisions of international cooperation agreements due to the EU WFD
Overall improvement of international, transboundary exchange and river basin management
Informal transboundary meetings were organised to exchange on cooperation issues
Transboundary consultations took place
Future commitment to develop an international RBMP by 2015
Promotion of EU WFD issues between basin sharing countries
Initiation of a consolidated understanding of joint cooperation issues

The following Section 26 summarises the key findings and outcomes of Task 1b allocating these to selected key aspects like effectiveness, alignment of objectives, territorial approaches, sectoral and stakeholder involvement, transparency, resources allocation, adaptability and long term strategic planning.

26 Conclusions

This study investigates 105 European international river basins and sub-basins regarding coordination mechanisms that are currently in place including their effectiveness through the assessment of joint activities and methods between countries sharing the basins. 60% of the EU territory is covered by international river basins (approximately 3,3 Million km²). 25% of the total river basin area under this study is covered by only one international basin (Danube, appr. 800,000 km²), another 25% by five basins (Rhine, Vistula, Elbe, Odra, Nemunas). Hence, 6 basins represent half of the catchment area of international rivers, while the remaining 69 basins represent the rest.

More than 70% of the European international river basins are shared between both EU MS and Third Countries. The remaining 30% (= 23 international river basins) are exclusively shared on European Union territory and therefore between EU MS.

26.1 Effectiveness (Summary)

So far, international RBMPs according to the EU WFD have been developed in 10 international river basins. The analysis shows that 47 international RBMPs are planned for development in international basins and sub-basins within the next WFD implementation cycles.

Allocating the European international river basins to four categories - that indicate a basic degree of international coordination and cooperation (see Table 45) - it can be concluded that 11% fall into Category I (highest degree of international coordination), 68% into Category II (high degree of international coordination), 18% into Category III (= moderate international coordination) and 3% into Category IV (lowest degree of international coordination). International coordination bodies under formal agreements are operative in 83 international river basins and sub-basins serving as facilitating cooperation platform for approximately 86% of European surface river basin area. In the remaining 22 international basins with formal international agreements coordination is undertaken without a coordinating body applying other mechanisms for international coordination (e.g. bilateral transboundary river commissions).

Soft indicators that have been applied within this study to indicate cooperation effectiveness between countries sharing European international river basins addressed the coordination (i) of several joint activities and (ii) the pro-active implementation of joint methods.

Joint activities are coordinated to the highest extent (56%) in international river basins under cooperation Category I (=very high degree of cooperation and are partly coordinated (23%) for river basins in Category II (=high degree of coordination). All categories include several joint activities - out of the investigated ten - that are not coordinated at all, whereas the majority can be found in basins under Category III and IV, which stand for a moderate to low level of international cooperation. Several partly coordinated activities represent a potential for improvements in the near future. Improvement is also planned for the development of joint methods in 57 international river basins and sub-basins within the next WFD implementation cycles. As of today some joint methods are in place in 29% of the international basins.

The analysis results indicate that for all international river basins and sub-basins improved international coordination and cooperation were stated to be achieved through the EU WFD. This is indicated for 81% of the basins, whereas for 9% of the basins it is stated that the EU WFD brought along partial improvement (see Figure 10). No improvement is indicated for 7% of the basins whereas for 3% no respective specifications are made.

26.2 Alignment of objectives

The identification of joint visions and management objectives as part of international coordination mechanisms has been investigated in this study. Visions and objectives for joint international river basin management are identified in 21 of the European international river basins (28%), are partially in place in 31 basins and are not identified in further 22.

Additionally, joint Significant Water Management Issues may as well serve as indicators for the alignment and coordination of basin-wide objectives. Coordinated SWMIs are identified in 12 of the European international river basin (10%) and partially in almost 50% of the basins.

26.3 Territorial approach

International coordination in Europe is on one hand undertaken via adequate mechanisms like formal international agreements and tools on the basin-wide level. On the other hand the inter-linkage between the international and national level and vice versa is crucially important. The majority of river basin management issues and measures addressed in the international RBMPs are

implemented through the national level and respective governance as well as regulations adequately taking into account the international RBMPs are vital.

As of now it can be concluded, that all of the 10 international RBMPs that are available as of 2009 are linked with the national RBMPs and include specific information on the basin sharing countries and items of national RBMPs. Vice versa, most of the national RBMPs refer to the international Management Plans and interlink to a certain degree. EU MS usually address the national part of international RBDs in separate RBMPs.

The coordination of the national and international RBM level was indicated as a challenge during the first WFD cycle. The parallel time-lines to develop respective RBMPs made feedback between the national and international level difficult and partly impossible.

26.4 Sectoral and stakeholder involvement

Stakeholder involvement within international coordination mechanisms is briefly addressed in this study via a screening on integration of observers in basin-wide activities. Observers are involved in international cooperation for 11% of the international basins (see Figure 5). These are primarily the river basins comprising the highest degree of cooperation (Category I basins with formal agreements, international coordinating bodies and an international RBMP). Coordination mechanisms regarding 51% of international basins do not formally integrate observers and for 6% partial integration is indicated. For 32% of the basins no respective specifications are available.

26.5 Transparency

Transparency on international coordination and coordination can probably be considered as highest in those European international river basins where international RBMPs have been developed. The RBMPs provide information on the state-of-play situation on the basin-wide scale covering EU WFD requirements in an individual document that is easily available for the public. Other international cooperation mechanisms partly use other tools than RBMPs to disburse information on their work and achievements (e.g. internet, studies, reports, etc.).

26.6 Resource allocation

Budget is managed and allocated in various ways within the different international coordination frameworks. For example, staff of international river commissions is usually financed via a joint budget of the basin sharing countries to facilitate basin wide river basin management, whereas project based activities are financed from other sources. In most of the international river basins and sub-basins no joint budget is available and other financial sources are used for international cooperation like international and EU project funds or grants.

The analysis for international river basins shows that financial resources for joint cooperation are fully and partially available in 15% of the international river basins (this mainly relates to financing staff in international river commissions but not of projects). 85% international river basins coordinate their work without such resources. Participation of representatives of basin sharing countries is only financially supported in 5% of the international basins.

26.7 Adaptability

For international coordination mechanisms, changes and improvements that occurred through the enforcement of the EU WFD might be used as indicator for adaptability. The analysis results indicate that for all international river basins and sub-basins improved international coordination and cooperation was achieved through the EU WFD. This is indicated for 81% of the basins, whereas for 9% the EU WFD brought along partial improvement. For 7% of the basins no improvement is analysed and for further 3% no specifications are currently available. In many cases improvements through the WFD came along as of the enforcement date of the EU WFD in 2000. Other cases describe shifted improvement when specific cooperation agreements for international came into force or were revised.

26.8 Long term strategic planning

Long term strategic planning is on-going to a certain extent in European international river basins to ensure sustainable cooperation between basin sharing countries but also future WFD implementation and other water management issues like climate change adaptation as well as flood management. For 47 international basins international RBMPs are planned to be in place within the next WFD implementation cycles, which certainly demands long term strategic planning. In most basins conclusions have been drawn after the first WFD cycle, cooperation obstacles and successes are identified as well as future areas of cooperation improvement. In specific, 90% of the international basins have identified current and future challenges. 56% of the basins foresee related improvement within the next implementation cycles. These include inter alia the identification of further joint activities and harmonisation of joint methods on the basin-wide scale.