3rd European Water Conference

Brussels, 24 – 25 May 2012

Charlemagne Conference Centre Brussels,

Room Alcide de Gasperi

Background document

ANNEX A

Preliminary assessment River Basin Management Plans

Organized by eco logic on behalf of the European Commission

Annex A. European Commission preliminary assessment of the Member States River Basin Management Plans (RBMPs)

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1 Introduction

1.1 Main elements of the Water Framework Directive

The Water Framework Directive (WFD) introduced a number of key principles into the management and protection of aquatic resources[1]:

1. the integrated planning process at the scale of river basins, from characterisation to the definition of measures to reach the environmental objectives
2. a comprehensive assessment of pressures, impacts and status of the aquatic environment, including the ecological perspective
3. the economic analysis of the measures proposed/taken and the use of economic instruments
4. integration of water-related policies
5. public participation and active involvement in water management

[1] More detailed information about the contents of the Water Framework Directive can be found at DG Environment's website and in particular in the Water Notes, published in all official languages: http://ec.europa.eu/environment/water/participation/notes_en.htm

The WFD was adopted in 2000 and envisaged a long implementation process leading to the adoption of the river basin management plans (RBMPs) in 2009, which describe the actions envisaged to implement the Directive. The plans should deliver the objectives of the WFD, including non-deterioration of water status and the achievement of good status by 2015. The preparatory process of the plans has already been subject to two Commission implementation reports in 2007 and 2009[2].

The planning process is a step-by-step procedure in which each step builds on the previous one (see Figure 1). Each step is important, starting from the transposition and the administrative arrangements, followed by the characterisation of the river basin district[3], the monitoring and the assessment of status, the objective setting, the programme of measures and the implementation of the measures. The programme of measures is the tool to respond to the identified pressures and to enable the river basin/water body to reach good status.

The river basin management plan represents, therefore, the centrepiece of water management. It is the comprehensive document identifying all actions to be taken in the river basin district.

The strength of the planning process, the adequacy and reliability of the RBMP depend on the good implementation of every step. The RBMP will be as weak as the weakest of the steps that are involved in its preparation.

For example, if a significant pressure is overlooked during the pressures and impacts analysis, the monitoring will probably not be designed to assess it and the programme of measures will not envisage action to address it.

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2 http://ec.europa.eu/environment/water/water-framework/implrep2007/index_en.htm

3 This includes the pressures and impacts analysis, the economic analysis, the delineation of water bodies and the establishment of the typology and reference conditions for surface water bodies, and the basis for the ecological status assessment.

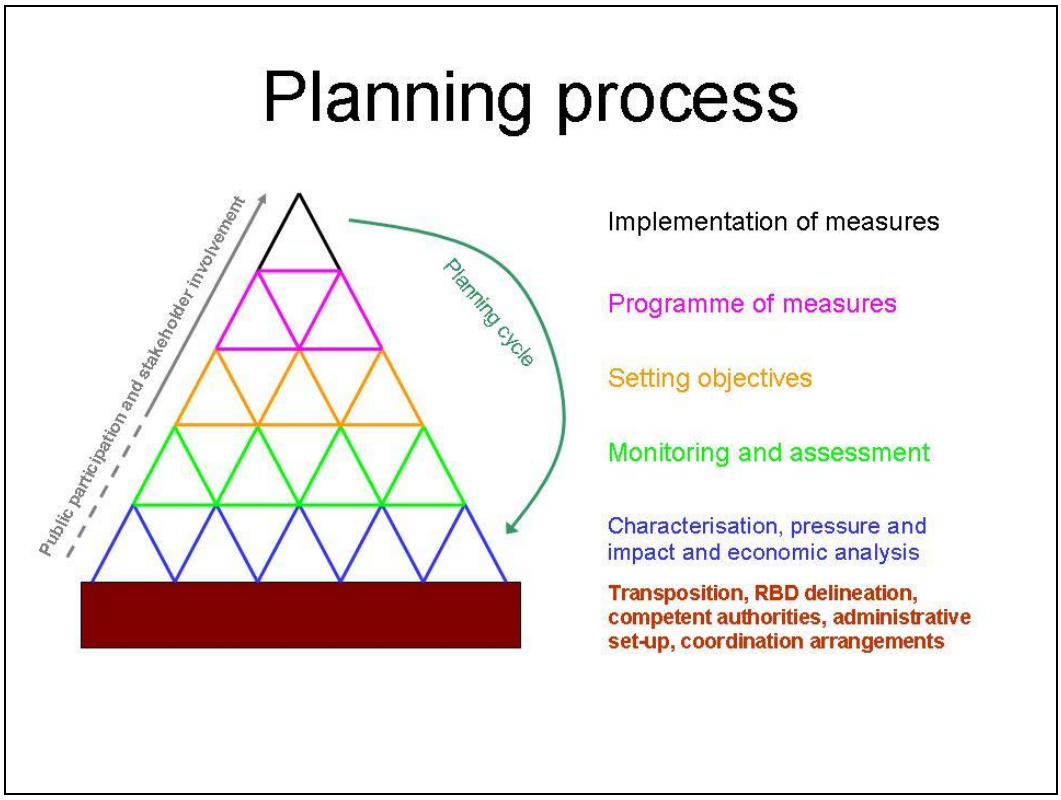

Figure 1: Schematic representation of the WFD planning process

1.2 State of play adoption and reporting

Figure 2 presents the state of play of adoption of the RBMPs[4]. 24 Member States have adopted and reported 119 RBMPs for national parts of RBDs[5].

In Belgium, the Flemish Region and the Federal Government (responsible for coastal waters) have adopted plans; the plans for the Walloon and Brussels Regions are awaited. In Spain,

[4] Updated overview at http://ec.europa.eu/environment/water/participation/map_mc/map.htm

[5] Norway has adopted 9 pilot RBMP. Norway is implementing the Water Framework Directive as part of the European Economic Area Agreement, with specific timetable agreed thereunder.

only the plan for the Catalan river basin district has been adopted. In Portugal and Greece no plan has yet been adopted.

The Commission has taken before the EU Court of Justice the 4 Member States that still have to deliver RBMPs. The first ruling was published on 19 April 2012 condemning Greece for not having adopted and reported the plans.

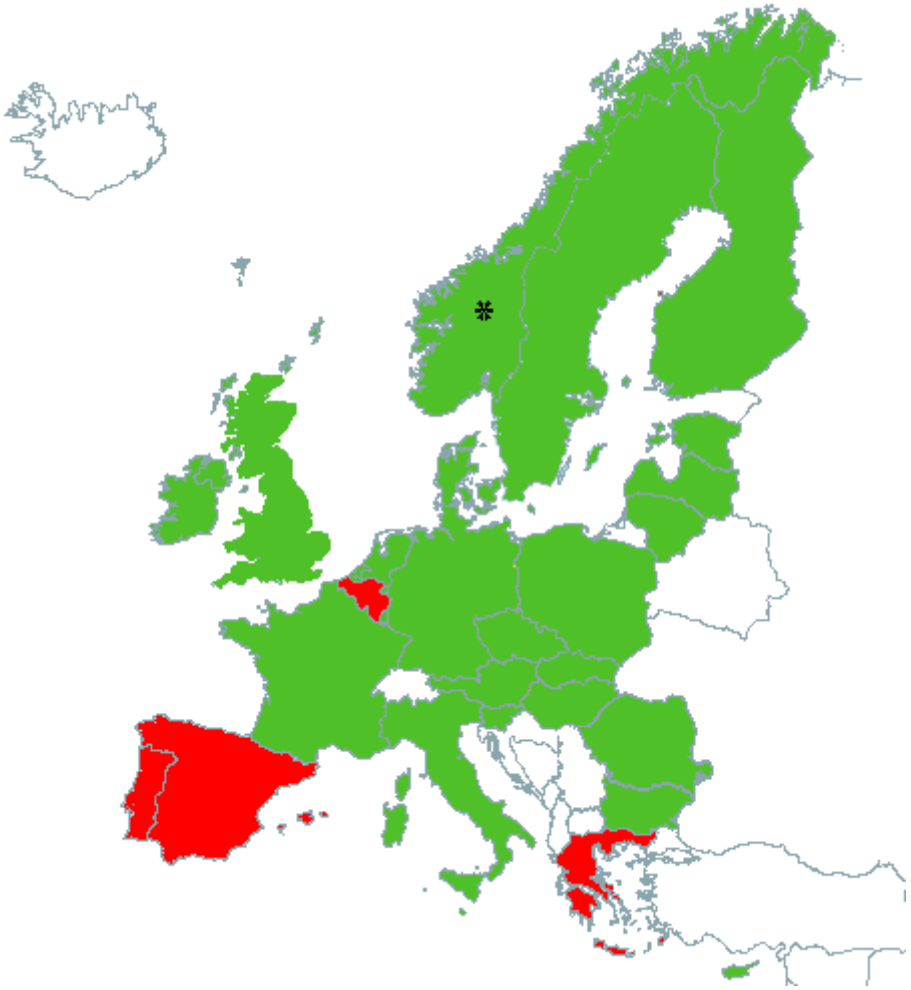

Figure 2: State of adoption of the RBMPs.

The delays in adopting RBMPs in some Member States are of great concern also because the second implementation cycle is in preparation, and there is a risk that these countries will

continue to be out of synchronisation with other countries they share international catchments with. The 6-month consultation on the timetable and work programme for preparing the second RBMP should start at the latest by 22.12.2012 (see WFD article 14.1.a and 14.3). Coordination and consultation with the authorities developing the countries' flood risk management plans is also required (Floods Directive art 9.3).

1.3 The assessment of the River Basin Management Plans

The Commission´s third report on the implementation of the WFD will be based on the assessment of the RBMPs and will be an integral part of the Blueprint to Safeguard Europe´s Water Resources to be published in November 2012. The publication of this implementation report is a requirement of Article 18 of the WFD. The assessment is based on the reporting by Member States, consisting of the published plans and accompanying documentation[6], the electronic reporting through the Water Information System for Europe (WISE)[7] in predefined formats and any additional background documents that the Member States considered relevant.

The plans are comprehensive documents that cover many aspects of water management, consisting of hundreds to thousands of pages of information. They were published in the national languages. The assessment of the plans is therefore a very challenging and complex task that involves dealing with extensive information in more than 20 languages.

The quality of the Commission assessments relies on the quality of the Member States' reports. Bad or incomplete reporting can lead to wrong and/or incomplete assessments. It is recognised that reporting is a big effort for Member States, in particular the electronic reporting in WISE. There are examples of very good, high quality reporting. However, there are also cases where reporting contains gaps or contradictions.

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6 All reported RBMPs are publicly available at: http://circa.europa.eu/Public/irc/env/wfd/library?l=/framework_directive/implementation_documents_1/submitted_rbmps

7 See http://water.europa.eu and in particular http://www.eea.europa.eu/themes/water/interactive/water-live-maps/wfd

At the time this paper is produced, the Commission is still assessing a number of RBMPs. Therefore, this paper presents a well advanced but not final picture of the RBMP assessment that will be refined and completed until the publication of the Blueprint.

This paper presents the findings of the Commission assessment of the RBMPs, structured according to the WFD planning process presented above.

NOTE: All graphs with source indication "EC RBMP assessment database" are based on information collected through the assessment of the RBMPs. 108 RBMP have been assessed so far from 24 Member States (all except Denmark, Portugal and Greece; from Spain only 1 plan has been adopted and assessed so far; from Belgium only the plans adopted and reported by Flanders and the Federal Government have been assessed; some small RBDs in Sweden and Poland have not been included yet in the assessment). Except if otherwise noted, these 108 RBMPs have been used as the basis for the percentage calculations.

2 Findings of the assessment of the river basin management plans

2.1 Governance

2.1.1 Administrative arrangements

Member States have generally adapted their water administrations for a better implementation of the WFD but the coordination mechanisms are not always clear from the river basin management plans. Most countries have prepared one plan for all or their part of a river basin district (RBD) and set up mechanism for coordination of competent authorities when competence is shared by different authorities in the country. Coordination mechanisms are sometimes very complex. The degree of coordination among authorities at the RBD scale is also variable: from exchange of information, to development of non-legally or legally binding guidance documents for the implementation, to a mechanism that require the agreement of the authorities on a single plan.

2.1.2 International cooperation

International cooperation has been significantly enhanced since the adoption of the WFD, in particular in large international basins. Some form of cooperation and coordination is ongoing in most shared river basins including more than one EU Member State or a third country (more than 80% of national plans for international RBD assessed indicate some kind of cooperation agreement). However, it is generally less developed in smaller transboundary catchments (sometimes it is not even mentioned in the plans or not recognised that the river basin is international).

The highest degree of coordination is achieved when an international RBMPs is developed. (9 international RBMPs have been adopted). This has been the case in 15% of the international river basins (25% if only the international basins shared by more than 1 Member State are counted). Around 70% of the plans for national parts of international RBD indicate that there has been some degree of coordination of the measures with countries sharing the basin. Measures related to river continuity, nutrient reduction and chemical pollution are often indicated as being coordinated (in around 40% of the RBMPs). Around half of the international plans also indicate that there are transboundary monitoring programmes for shared rivers and 20 RBMPs for shared groundwater bodies.

2.1.3 Public participation

Public participation and stakeholder involvement have become a natural element of river basin management planning. Member States have undertaken significant efforts in consulting stakeholders and the public and have used a variety of different outreach methods. Nonetheless, the impact of the consultation on the RBMPs is not always clear. Only in some RBMP specific documents 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.

Generally the river basin management plans are easily accessible, although sometimes the background documents and sub-plans are not easy to find or not available.

Draft RBMPs, which have been subject to consultation, seem in some cases not to have included all relevant information.

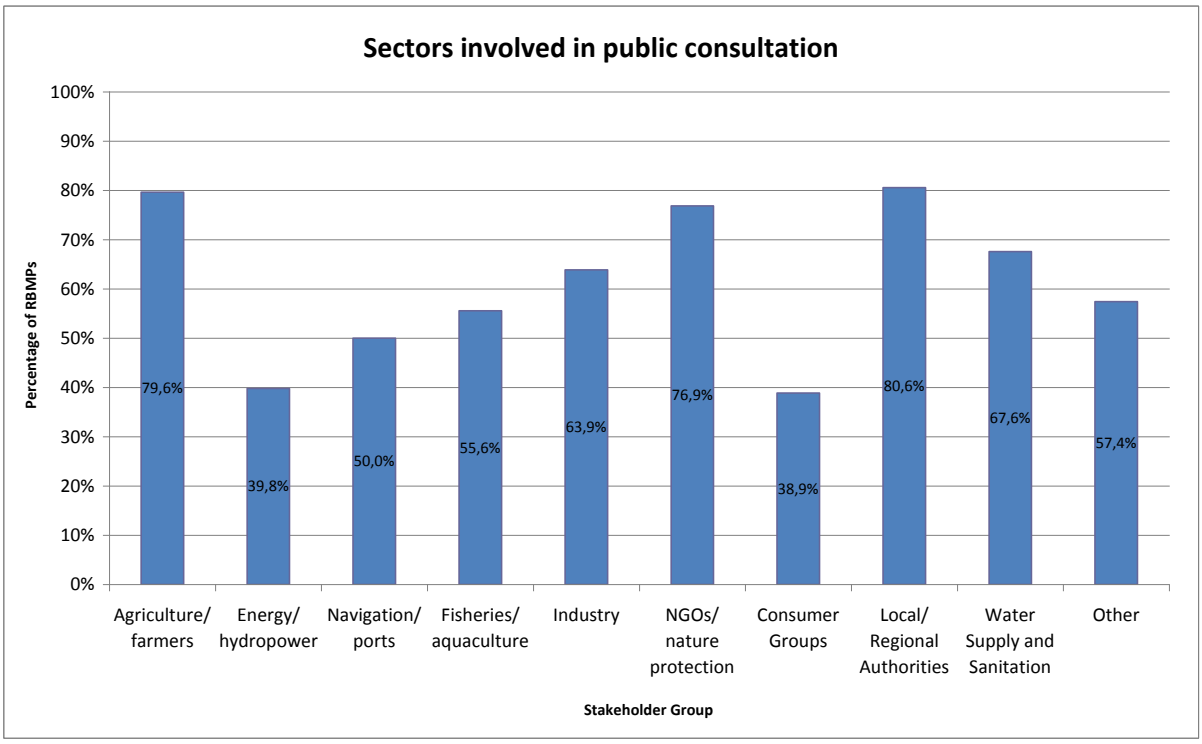

Figure 3: Sectors involved in the public consultation

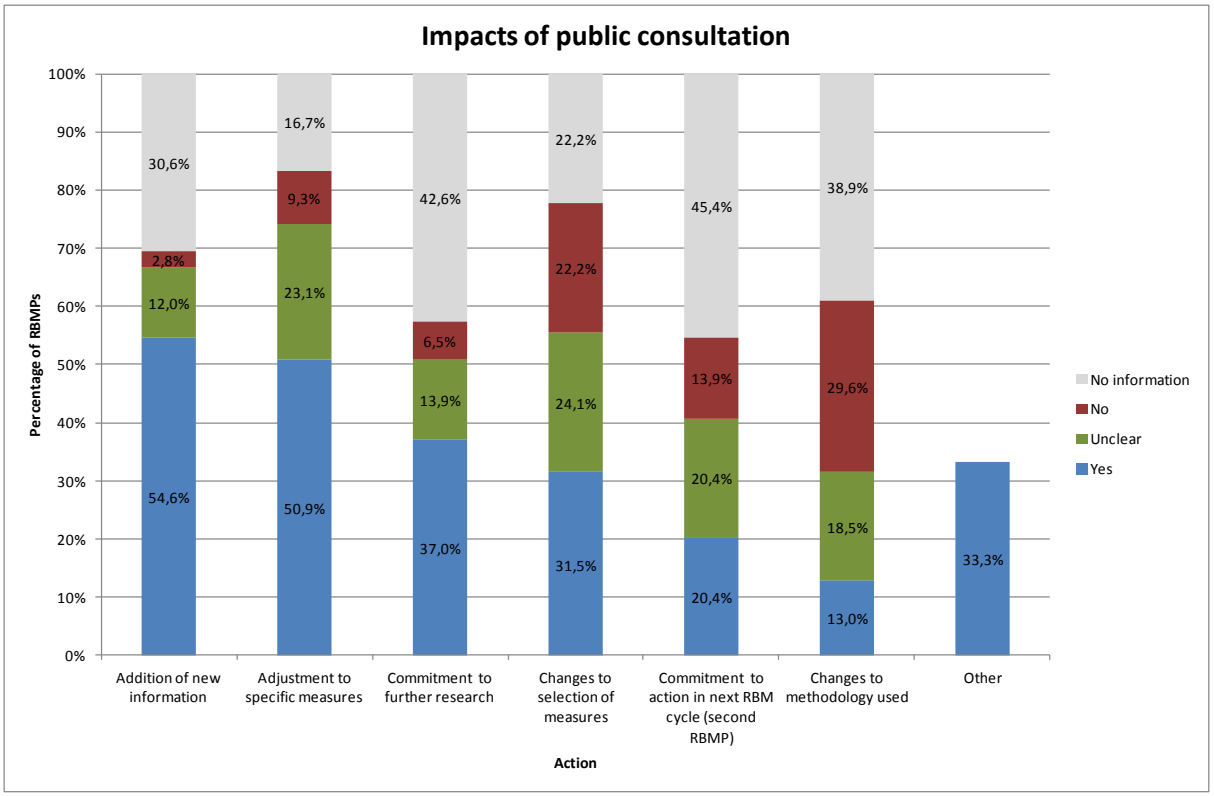

Figure 4: Impacts of the public consultation according to the RBMPs

2.2 Characterisation

The WFD has produced a significant improvement of the knowledge base and increased transparency by compiling together information on all characteristics, pressures and impacts on water bodies at basin level, and on the economic importance of water.

2.2.1 Delineation of water bodies and typology

The water bodies have become the assessment unit for water quality/status. More than 100.000 river water bodies have been delineated (with a total length of more than 1 million km), 19.000 lakes, 1000 transitional and 2900 coastal water bodies[8]. More than 13.000 groundwater bodies have been delineated[9].

A typology of surface water bodies has been developed in all RBMPs reported, although it has not always been validated with biological data (overall only for 50% of rivers and lakes, 30% of coastal waters and 10% of transitional waters).

The protection of small water bodies is a concern. The WFD protects all waters. In the delineation of water bodies, many Member States have used size thresholds that exclude small water bodies without necessarily taking into account their importance in the basin.

2.2.2 Designation of Heavily Modified Water Bodies (HMWB)

There are only few examples where heavily modified water bodies have been designated and good ecological potential has been defined in a transparent way following the WFD provisions and the Common Implementation Strategy (CIS) guidance. In particular, the assessment of "significant adverse effects" and of "significantly better environmental options" is generally weak or has not been carried out. Designation appears to be largely based on expert judgement. As a consequence, it is not clear if the driver for restoration of altered water bodies that is built in the designation process is retained.

Overall, 12% of water bodies have been designated as heavily modified (13% of rivers, 10% of lakes, 23% of transitional waters and 6% of coastal waters)[8]. However, a large number of water bodies remain “unknown” as regards their natural or heavily modified status in some countries indicating that the designation process has not been completed.

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8 Data from all Member States except Malta and Slovenia.

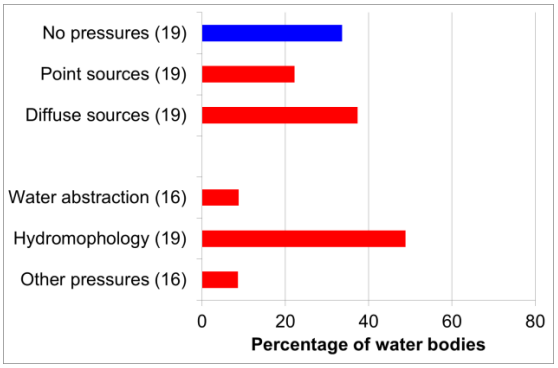
9 Data from all Member States except Slovenia.

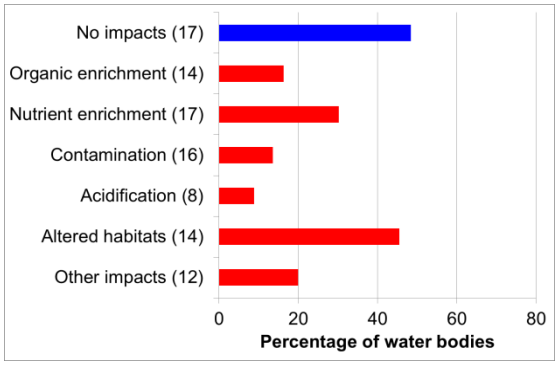
2.2.3 Pressures and impacts analysis

There has been an impressive improvement in many MS concerning the knowledge base and the information available on relevant pressures.

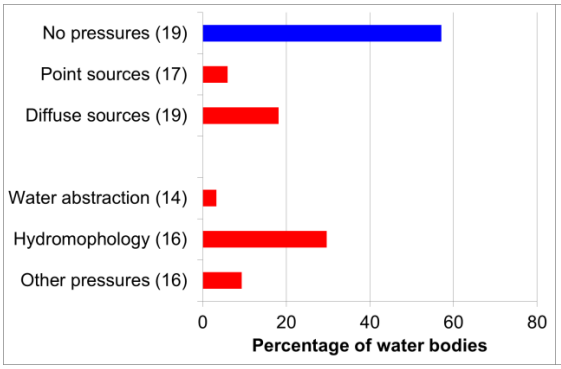
It is still often unclear though how significant pressures have been defined. This lack of transparency makes it difficult to assess whether all relevant pressures have been taken into account. Pressures that are overlooked in this step are likely to be ignored in the rest of the planning process.

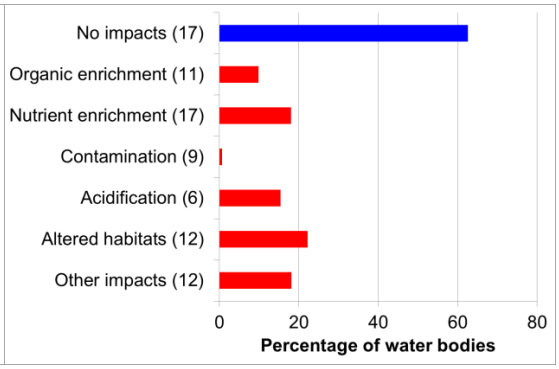
Rivers



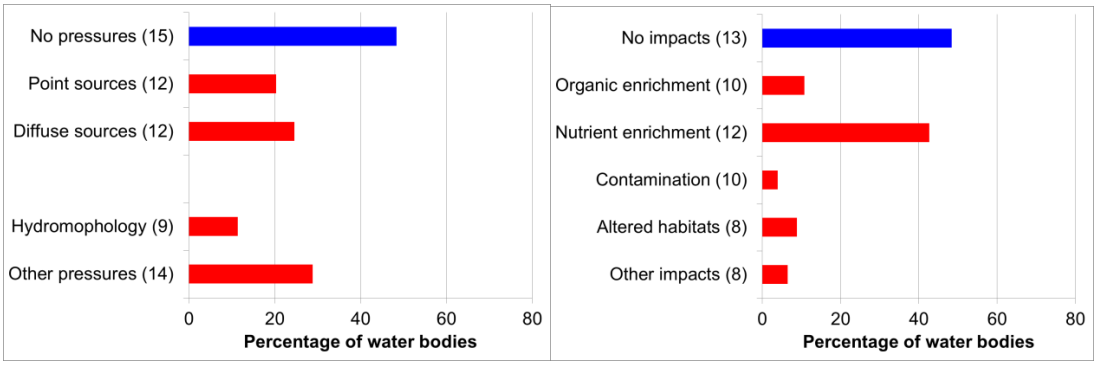


Lakes

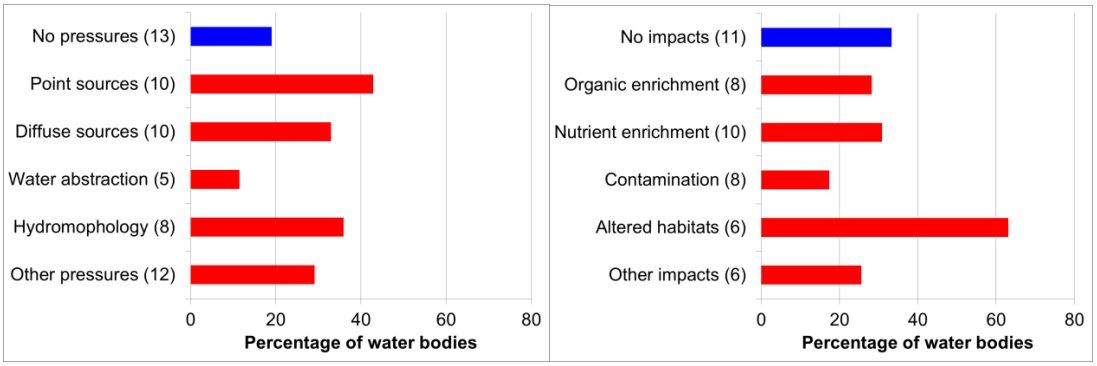




Coastal waters



Transitional waters



Note: The percentage is calculated against the total number of classified surface water bodies in Member States reporting the specific pressure or impact type (or any pressure or impact for the blue bars). The number of Member States included is indicated in brackets.

Figure 5: Pressures and impacts in surface water categories (Source EEA Draft Report on Ecological and Chemical Status, version February 2012).

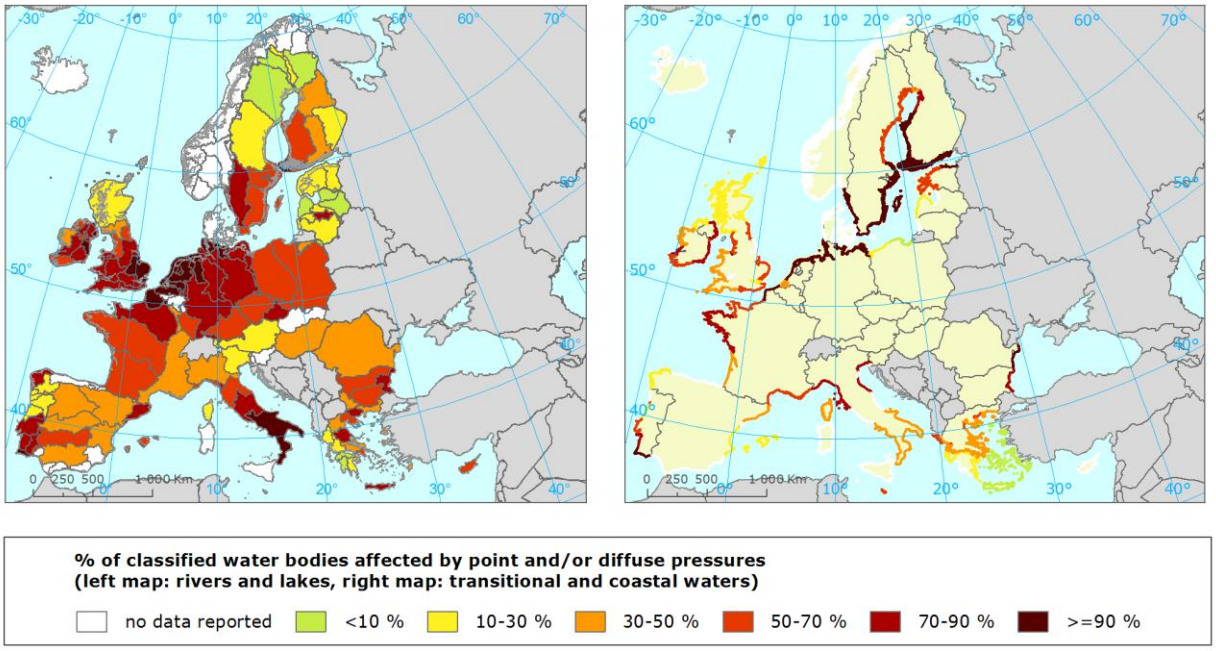


Figure 6: Proportion of classified water bodies in different River Basin Districts affected by pollution pressures for rivers and lakes (left panel) and for coastal and transitional waters (right panel) (percentage, based on number of classified water bodies). (Source: EEA).

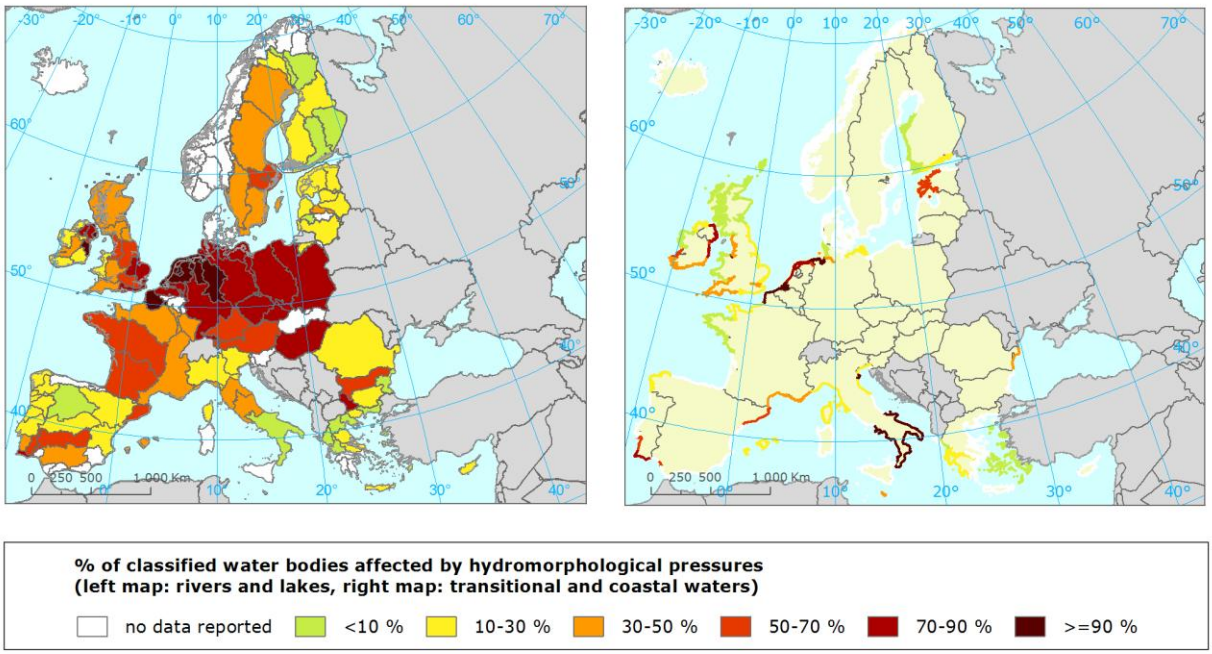
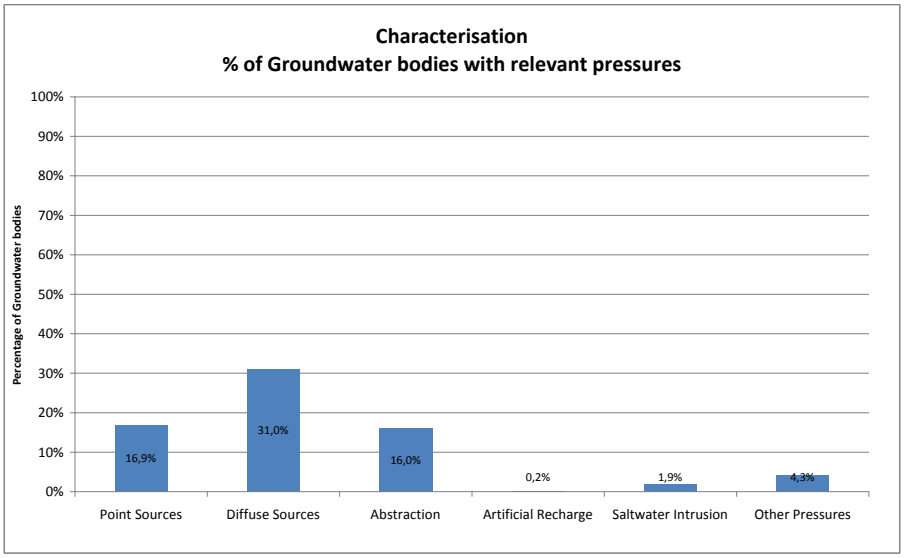


Figure 7: Proportion of classified water bodies in different River Basin Districts affected by hydromorphological pressures for rivers and lakes (left panel) and for coastal and transitional waters (right panel) (percentage, based on number of classified water bodies). (Source: EEA).



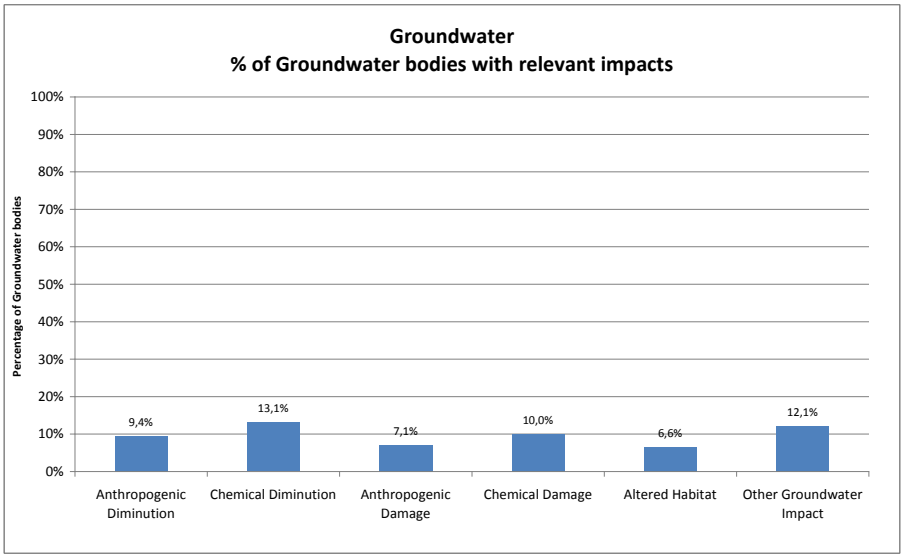


Figure 8: Relevant pressures and impacts in groundwater bodies. Data from 22 and 18 Member States respectively.

2.3 Monitoring of surface and groundwater

All Member States have monitoring programmes in place for surface water and groundwater.

In 2007 the Member States reported their monitoring programmes to the Commission[10]. Comparing the reported programmes in 2007 with the monitoring information available in the RBMP reports, it appears that some Member States have not fully implemented the 2007 monitoring programmes.

There is rarely a justification of the amount of monitoring on the basis of the desired level of confidence. Due to the low amount of monitoring data there are doubts as to whether the degree of monitoring is sufficient to detect the existing pressures and impacts, if all relevant quality elements are being monitored and to what degree the assessment of ecological status is actually based on monitoring data. The concerns about insufficient monitoring data also apply to the assessment of upward trends in groundwater, to the monitoring of priority substances which is not always complete, and to the selection of the substances to monitor which is not transparent.

The monitoring effort appears to be governed in some cases by a fixed amount of resources available from the start. Given the fact that measures to be applied as a result of the monitoring results are much more expensive than the monitoring programmes, the cost effectiveness of this approach is doubtful as it may lead to the application of the wrong measures. This issue is more worrying in cases where the lack of confidence in monitoring or status assessment is given as a reason to delay the achievement of the WFD objectives.

Monitoring is the most important tool to assess ecological, chemical and quantitative status of water bodies. Therefore, coverage of monitoring should be sufficient to allow for a reliable and comprehensive assessment of the status of water bodies (WFD article 8).

In the EU there are around 80.000 monitoring stations for surface water (78% rivers, 10% coastal, 9% lakes and 4% transitional) and nearly 60.000 for groundwater.

[10] See Commission's 2009 implementation report http://ec.europa.eu/environment/water/water-framework/implrep2007/index_en.htm#second

2.4 Assessment of status

2.4.1 Ecological status and potential of surface waters

The ecological perspective is generally now firmly integrated into the assessment of the status of surface waters and has become an integral part of water management.

There has been significant progress in the knowledge on aquatic ecology, a development supported by exchanges of information between Member States' experts in particular through the intercalibration exercise and the CIS working groups and workshops, which have had a catalytic effect.

However, criteria for the establishment of reference conditions are variable or not transparent and in some cases reference conditions have not been established for surface water types and are therefore not used for ecological status assessments.

The assessment of ecological status in accordance with the WFD provisions has been a scientifically demanding task. There are good examples of Member States that have developed methods for most of the biological quality elements, but there are also Member States that have not yet completed this task, five years after the deadline in the WFD. In some Member States the biological classification tools have been developed but it appears that they are not applied in practice (or have been very sparsely applied) and this raises questions as to how ecological status was assessed.

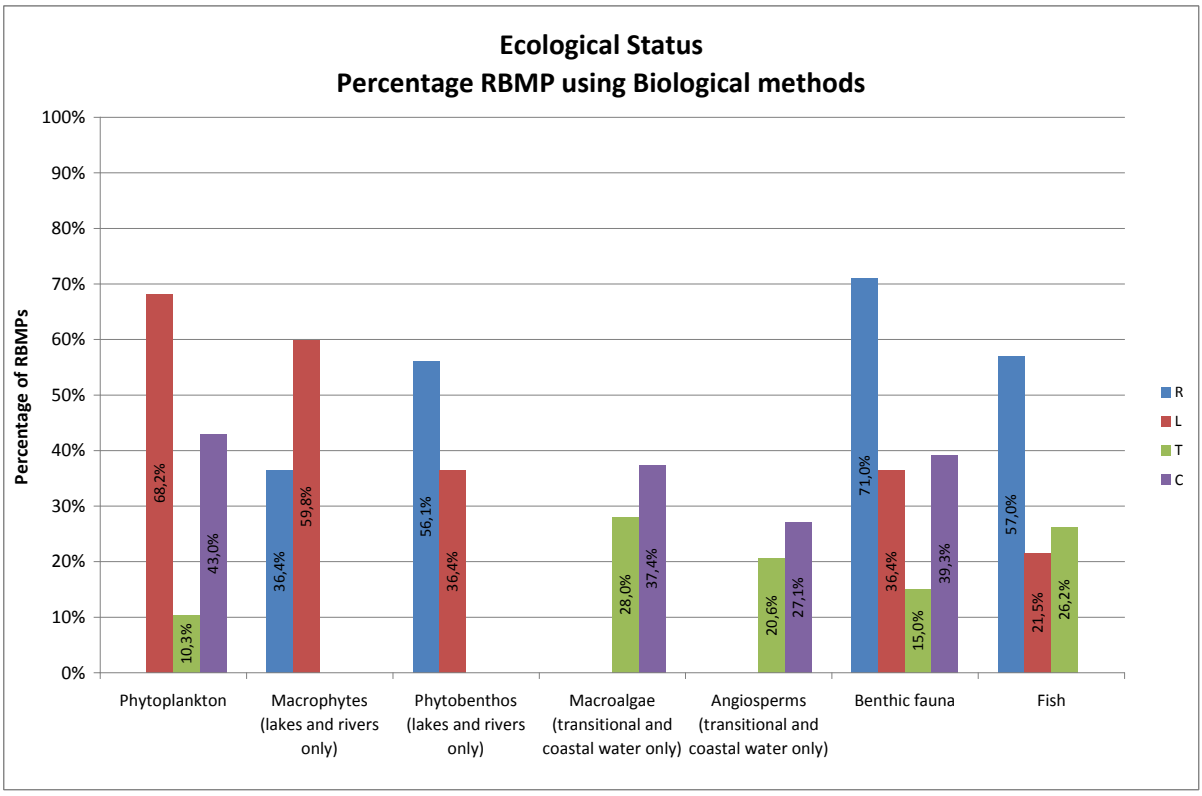


Figure 9: Percentage of RBMPs using biological assessment methods.

While in general good progress has been made as regards the sensitivity of the biological assessment methods to a variety of pressures, it appears that the methods are not (or not sufficiently) sensitive to hydromorphological pressures. There is concern that by not assessing these impacts the necessary measures for improving the hydromorphological conditions in rivers and lakes are not being taken.

The objective of the intercalibration of good ecological status is to ensure the comparability of the assessments across EU. While a significant number of biological quality elements were intercalibrated in phase 1 (2004-2007) it is not clear how the results of phase 1 intercalibration have been translated into the national classification systems.

There is a wide difference in the identification of river basin specific pollutants. Some Member States have identified dozens of substances whilst others only a handful of

substances already regulated before the WFD (by Directive 76/464/EEC). This puts into question the comparability of the classification of ecological status.

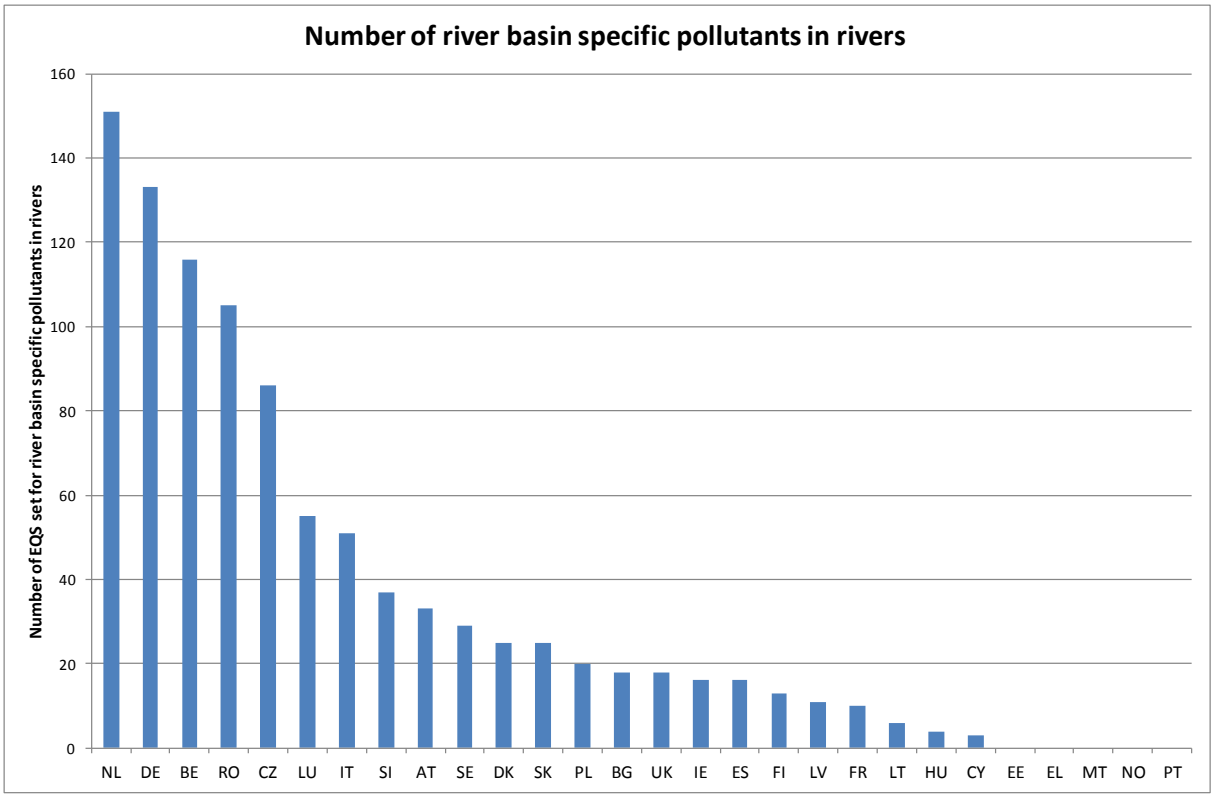


Figure 10: Number of river basin specific pollutants identified in rivers (Source: Pressures and Measures study – draft report).

The one-out-all-out principle has been generally applied (70-80% of the RBMPs have clear indication that it has been applied). Alternative approaches used in other cases do not demonstrate how it is ensured that the comprehensive consideration of all pressures and impacts of the WFD is respected.

In many plans, the environmental objectives for heavily modified water bodies (good ecological potential) have not been defined following the requirements of the WFD and the CIS guidance. Indeed, a number of Member States have not defined good ecological potential at all (25% of the plans do not have any information on how GEP is defined). This is worrying because it means that the target for planning the measures for a significant proportion of water bodies is not clear.

In addition, some Member States simply equate good ecological potential with the current situation without justification, resulting in status quo and no measures needed. This is clearly not in line with the WFD that requires reaching good ecological potential and must at least include those measures that will improve the ecological conditions without significantly jeopardising the water use.

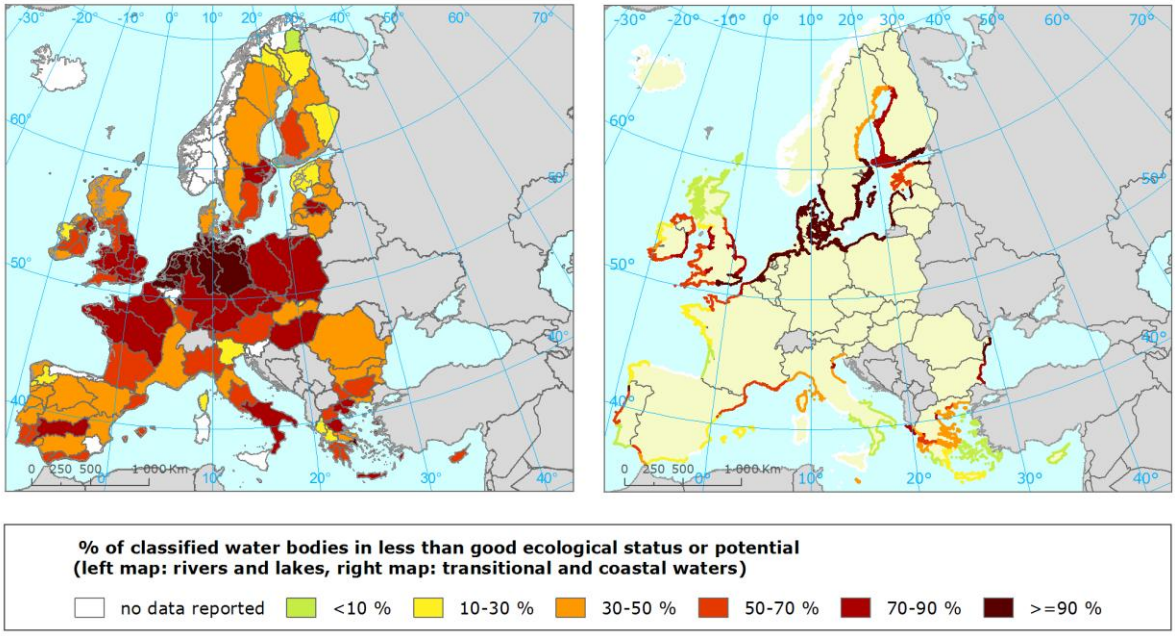


Figure 11: Proportion of classified surface water bodies in different River Basin Districts in less than good ecological status or potential for rivers and lakes (left panel) and for coastal and transitional waters (right panel) (percentage, based on number of classified water bodies). (Source: EEA).

2.4.2 Chemical status of surface waters

Some Member States opted for early implementation of the EQS Directive 2008/105/EC despite the fact that the deadline for transposition expired after the adoption of the river basin management plans (July 2010).

Because of the different timing of implementation and the different choices (e.g. analysis in water, sediment or biota for certain substances, allowed by the Directive) made by the Member States, the comparison of chemical status results is very difficult.

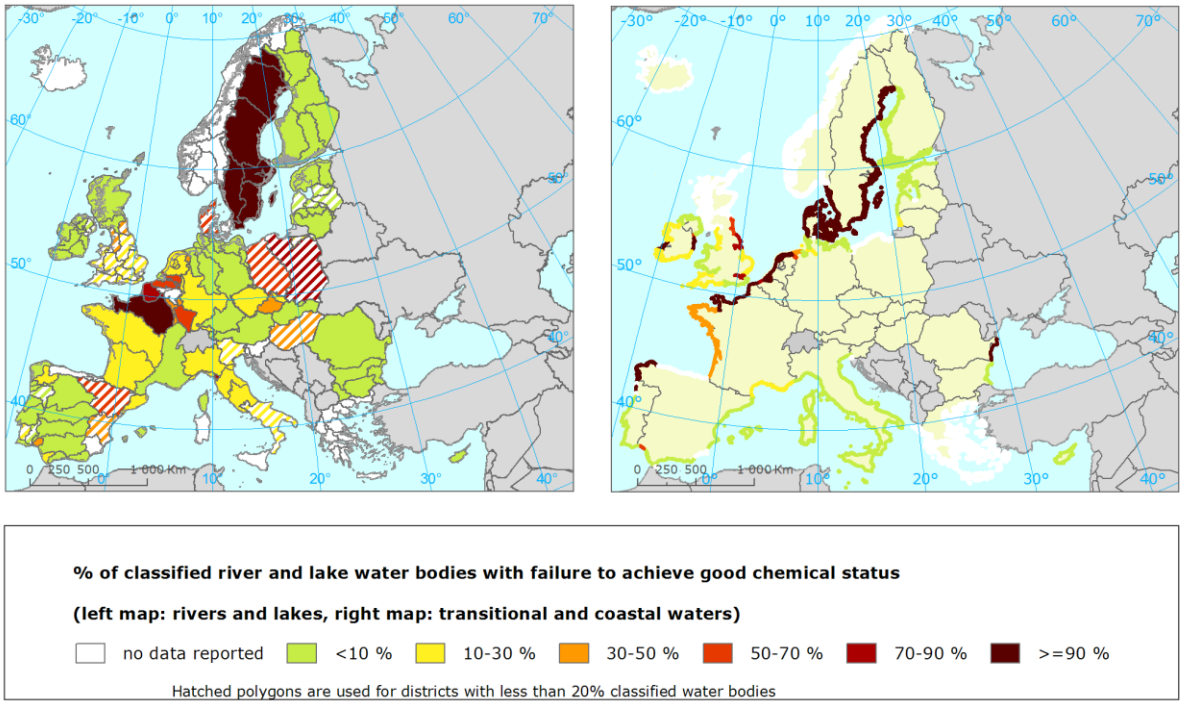


Figure 12: Percentage of water bodies not achieving good chemical status in rivers and lakes (left panel) and transitional and coastal waters (right panel) per RBD. (Source: EEA).

From the information presented in the RBMPs and reported in WISE, the assessment of chemical status seems to be an on-going work. The chemical status of 42% of water bodies is reported as unknown[11]. There are 23 RBDs that do not report any water body that fails to achieve good chemical status. The substances causing failures are not reported in WISE or in the RBMPs in 18 RBDs in spite of the inclusion of water bodies that fail to achieve good

11 Data from all Member States except Slovenia.

chemical status. The most common substances reported as causing failures are Poly-Aromatic Hydrocarbons (PAH), metals and pesticides.

2.4.3 Quantitative and chemical status of groundwater

The information reported in the RBMPs provides the first ever overview of groundwater status in the EU, but quite often the quality of the data is insufficient. Member States put a lot of effort into establishing methodologies for groundwater status assessment but their practical application is hampered by a shortage of long-term monitoring data and limited knowledge of groundwater systems. In particular, with regard to chemical status, threshold values differ significantly and it is unclear where threshold values have been exceeded. An assessment of trends is lacking in many cases.

There is appropriate knowledge and information on groundwaters that supply drinking water but impacts on surface waters and on groundwater dependent terrestrial ecosystems has generally not been considered in the assessment of groundwater quantitative and chemical status which is therefore incomplete.

The following table shows the percentage of groundwater bodies in good, poor and unknown chemical and quantitative status[11]:

Percentage of water bodies	Good	Poor	Unknown
Chemical status[12]	80	15	5
Quantitative status[13]	87	6	7

12 If counted by area instead of number of water bodies the percentage in good chemical status is 72%.

13 If counted by area instead of number of water bodies the percentage in good quantitative status is 84%.

Around 8% of groundwater bodies are reported to fail chemical status due to nitrates and 2% due to pesticides.

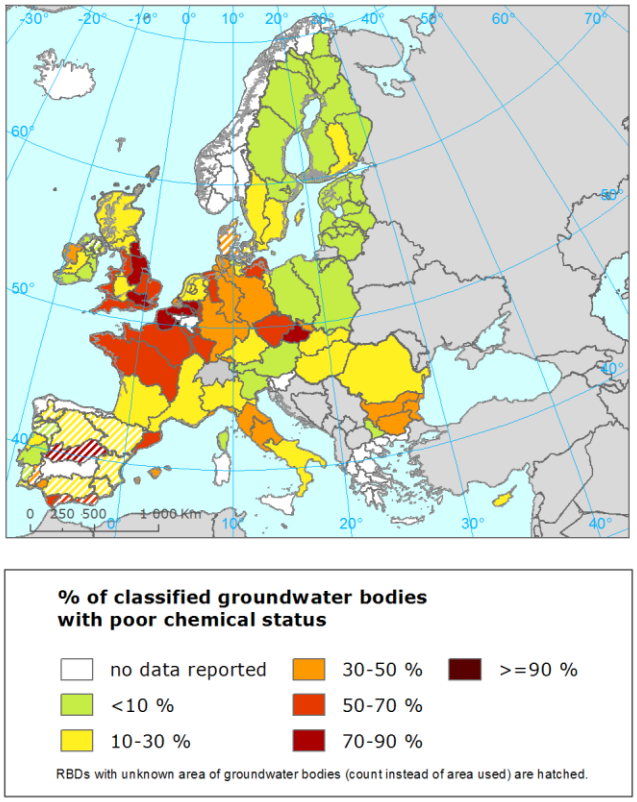


Figure 13: Chemical status of groundwater per RBD – percentage of groundwater bodies not achieving good chemical status expressed in surface area. (Source: EEA).

2.5 Objectives and exemptions

Generally there is transparent information about which water bodies are subject to exemptions and the reason for it (technical infeasibility, natural conditions and/or disproportionate costs).

Nonetheless, a low ambition has been found in many of the plans as regards achieving the environmental objectives as extensive use of exemptions has been made. Approximately

72% of surface water bodies in less than good ecological status and 88% of water bodies failing to achieve chemical status[14] are subject to an exemption. More than 95% of the exemptions applied are for the extension of the deadline (WFD article 4.4).

In general, the extensive use of exemptions is not supported by transparent justification of the criteria applied, indicating a degree of arbitrariness in their application. In particular, the criteria for applying the argument of disproportionate costs are generally not transparent.

Despite the guidance developed there are different interpretations of the concept of technical infeasibility.

Where deadlines for achieving the environmental objectives are extended beyond 2015, it is mostly unclear by when the objectives will be reached.

Most of the plans (85%) make no reference to Article 4.7 WFD, even if in some cases there are large projects in the pipeline that are likely to bring about new modifications of water bodies. This seems to be caused by a lack of integration of measures developed under other policies. Where Article 4.7 WFD is applied, the justification according to the provisions of the WFD is often not explained.

Some plans provide good examples for additional objectives for protected areas and hence how the WFD should contribute and integrate other environmental legislation.

2.6 Programme of measures

2.6.1 General

From the analysis of the RBMP, it appears that, in general, the Programme of Measures provides a good overview of all actions to be taken to improve the status of the aquatic environment at the river basin scale.

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14 Sweden reported all surface water bodies as failing to achieve good chemical status due to pollution by Mercury, and applied an exemption for less stringent objectives under article 4.5 to all water bodies. Due to the fact that the number of water bodies in Sweden is very high, the Swedish data has been excluded from the calculations presented in this paragraph.

Nonetheless, the measures are often not concrete and the expected achievements not always clear. In general, there is limited understanding that the programmes of measures are to reflect the result of the analysis of pressures and impacts and the status information from the monitoring programmes. Often the definition of the measures is too vague and there is no clarity on the scope of the measure and no responsible actor identified. Furthermore, for ca. 60% of the Programmes of Measures, there is no financial commitment specified in the plan. It appears that Member States' understanding is that these elements have to be developed by 2012, as part of the process to make measures operational (WFD Article 11.7).

One exception is the basic measures included in article 11.3 paragraphs b) to l). These measures, mainly of administrative nature and aimed at regulating water uses and impacts, are largely implemented in all Member States.

The approach to calculating the costs of implementation varies tremendously and hence the figures provided are difficult to compare.

2.6.2 Agriculture

There is a considerable improvement in the knowledge base which confirms that agriculture constitutes a significant pressure on water quantity, on water quality or on the hydromorphology in almost all the river basin districts.

However, in some areas the available data on nutrient sources are still insufficient and this hampers the proper identification of needed measures. Moreover the hydromorphological impact of agriculture is not always sufficiently acknowledged and addressed in the plans.

All Member States have included agricultural measures in the RBMPs and programmes of measures. There is a great variety of technical, non-technical measures and economic instruments relevant to water protection in agriculture. In particular the link with the Rural Development Programmes is often missing (only present clearly in 60% of the RBMPs).

However it remains unclear to what extent the measures will deliver and will enable the river basins to reach the good status of water. The scope of the measures (e.g. type / number of farms targeted, geographical coverage expected), the timing and the financing are often unclear.

The programmes of measures sometimes make references to other projects without being sufficiently precise on the concrete measures which will be taken.

There are very different levels of involvement of the farmers in the preparation of the RBMP and in the practical selection of the measures (the level of involvement has been assessed as significant in 18%, moderate in 30% and basic in 30% of the RBMPs).

2.6.3 Hydromorphology

The WFD has introduced the hydromorphological aspects into water management and there have therefore been new hydromorphological measures selected in all RBMP.

Establishing environmental flows is an important hydromorphological measure. Around 40% of the RBMPs include references to guidelines or regulations to set environmental flows.

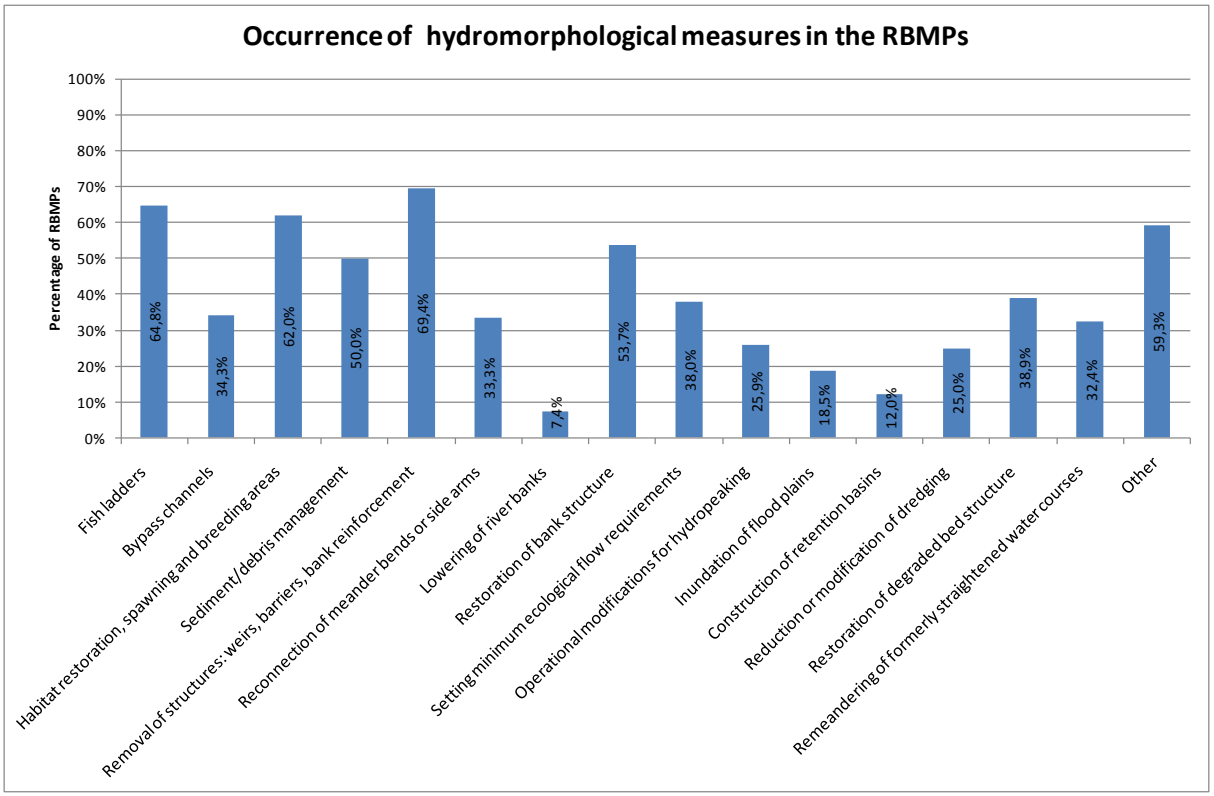

Figure 14: Occurrence of hydromorphological measures in the RBMPs.

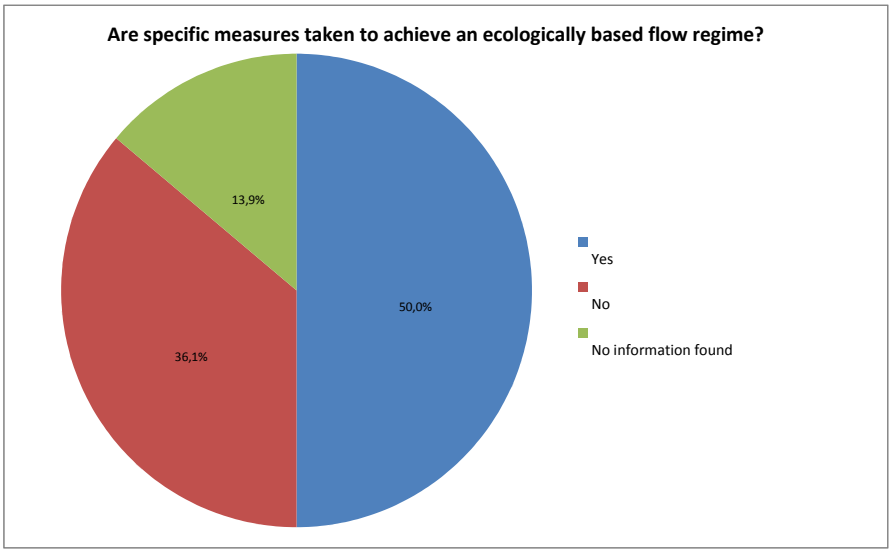

Figure 15: Percentage of RBMPs indicating that specific measures are taken to achieve an ecologically based flow regime.

2.6.4 Water pricing

Few Member States have changed their previous water pricing policies. The RBMPs mainly report a status quo of existing pricing policies.

Most Member States have a narrow interpretation of water services, whereby only public water supply and waste water treatment is covered. This limits very significantly the potential impact of Article 9 provisions[15].

Most RBMPs mention the contribution of households and industry to cost recovery but the contributions of other user groups remain unclear in an important number of RBMPs.

15 This issue is the subject of infringement actions by the Commission against a number of Member States.

Agriculture is often excluded from water pricing policies without a clear justification, even where agriculture constitutes an important pressure.

It is not always clear how financial costs are calculated in the cost recovery and if all elements of financial costs are taken into account in the calculation, for example investment costs, depreciation, cost of capital, replacement costs.

In almost half of RBMPs there is some reference to environmental and resource costs but these costs have generally not been transparently estimated. There are concerns about (lack of) methodologies and how to include these costs in cost recovery calculation.

There are varying methodologies for the calculation of cost recovery, which makes very difficult to compare the costs among different Member States.

Incentive pricing is rarely referred to in RBMPs. Even when it is referred to, the information is too general and does not present precise tools. In many cases there is no information on whether water metering is in place for different water uses. This information is fundamental when considering incentive pricing policy.

2.6.5 Chemical pollution

In general all RBMPs include measures that will contribute to reducing chemical pollution, in particular targeting industrial and urban waste water sources. However, these measures are usually general and rarely targeted at tackling exceedances of the environmental quality standards for specific substances.

2.6.6 Groundwater

Basic measures seem to be implemented in all RBDs, but they are quite general. Measures are rarely linked to specific water bodies at risk or in poor status. There are often no distinctions in the plans between measures to prevent and limit pollution and measures tackling hazardous or non-hazardous substances. Where relevant, bi- or multi-lateral coordination of measures seems to have taken place in transboundary river basins.

2.6.7 Protected areas

In most cases no additional measures are being implemented in protected areas to contribute to the achievement of objectives under other relevant EU legislation (e.g. the Habitats Directive or the Shellfish Directive). This is linked to the lack of additional specific objectives integrated in the RBMPs.

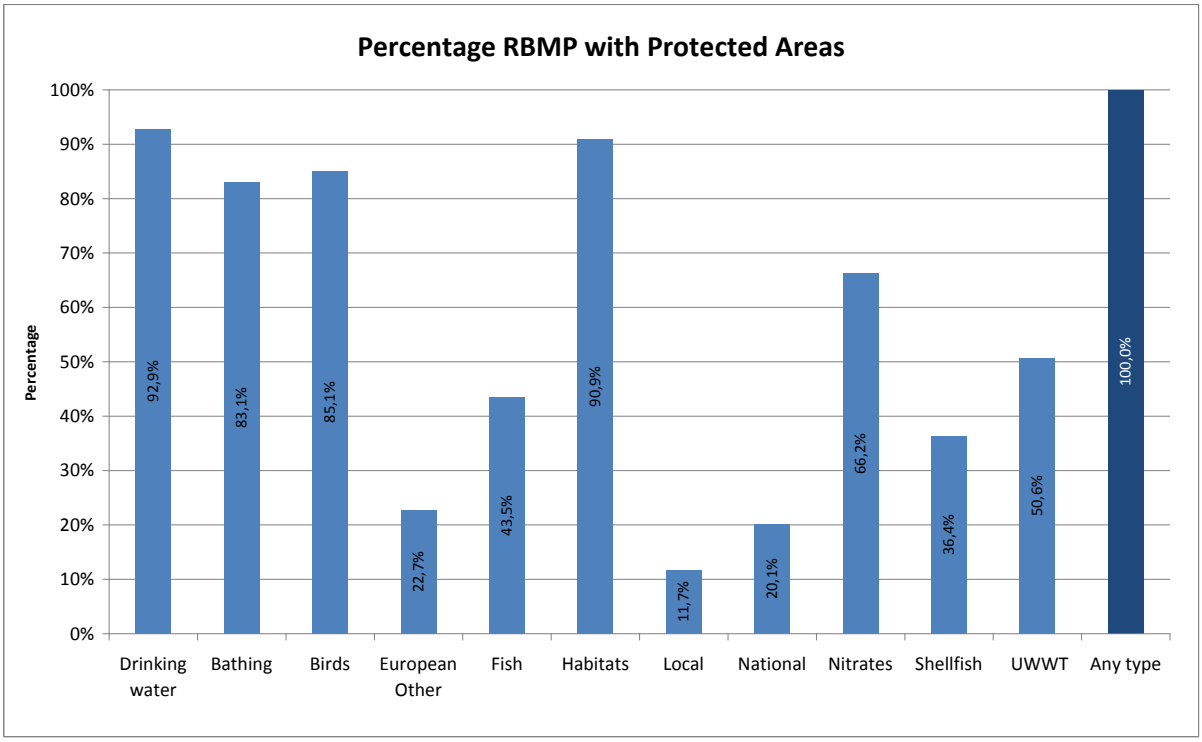

Figure 16: Percentage of RBMPs that have designated protected areas of each type.

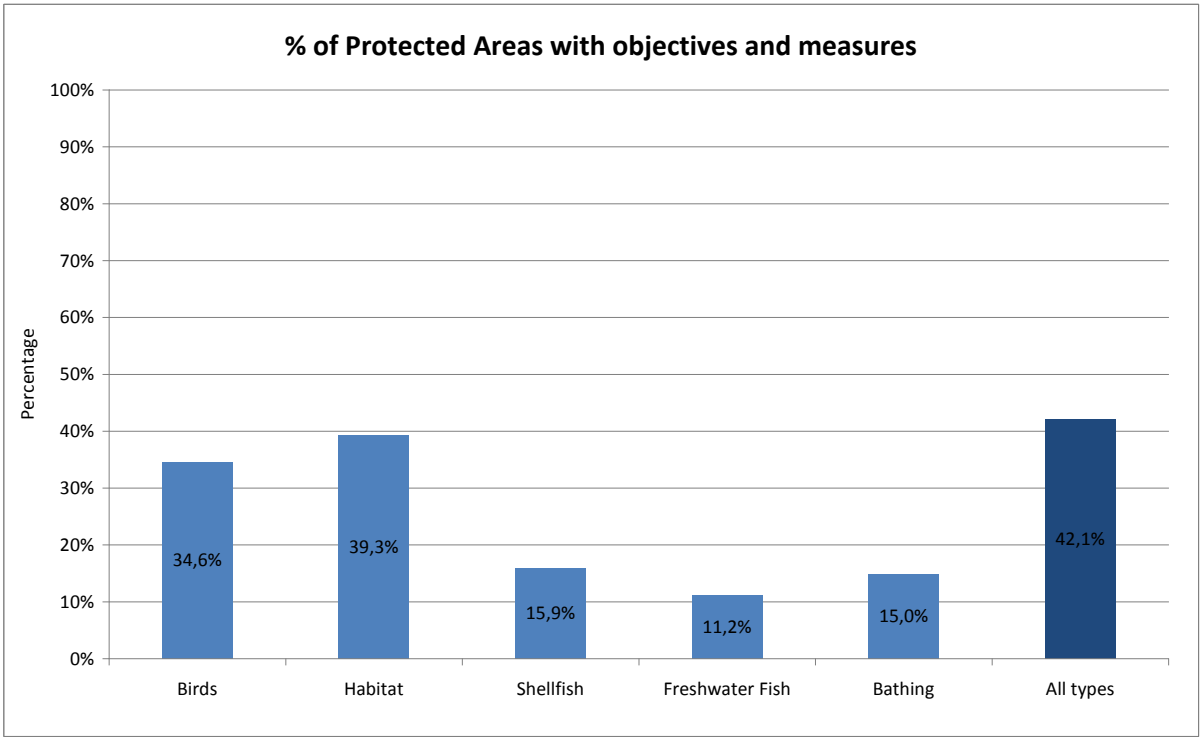

Figure 17: Percentage of RBMPs that have included specific objectives and measures for the achievement of objectives in protected areas (please note that not all protected areas are present in all RBDs, see figure 16).

2.7 Managing water sustainably in a changing world

2.7.1 Water scarcity and droughts

Most Member States plans acknowledge the problem. Water scarcity and droughts are either not specifically addressed or defined in different ways in different Member States.

The datasets on water quantity are insufficient to plan effectively, and the quality of data is limited. Little data is provided on water demand and water availability trend scenarios.

The Programmes of Measures still need to improve significantly in order to develop coherent and effective sets of measures. Water supply measures are significantly more reflected than demand side measures.

The influence of other sectoral policies on the reduction of water scarcity and the mitigation of drought effects is not described in any of the assessed RBMPs.

In international basins, there is still a major gap in dealing with water quantity in a way that reduces conflict risks and contributes to the WFD environmental objectives.

2.7.2 Adaptation to climate change

Adaptation to climate change is in general well addressed in most of the RBMPs. MS have already considered the general features of climate change in the planning procedure. Some MS checked the Programmes of Measures against the anticipated effects of climate change. More influence of the climate change related knowledge on the selection of RBMP measures is expected from the 2nd RBMP cycle.

2.7.3 Flood risk management

Some aspects of flood risk management have been considered as integral to the RBMPs, for instance in the context of adaptation to climate change (65% of the RBMPs mention flood risk management in this context).

3 Preliminary conclusions

It is clear from the reporting that a lot of efforts have gone into the preparation of the RBMPs. There has been significant uptake of the WFD common framework developed under the Common Implementation Strategy (CIS) and the common language on water management provided by the WFD. Compared to pre-WFD times there is an impressive improvement in the knowledge base on water and there is an increased transparency in setting objectives and managing water. The ecological perspective has been integrated in water management, i.e. the focus of protection has been extended to incorporate the health of the aquatic

ecosystem through the WFD objective of good ecological status. International cooperation has significantly improved and public participation in water management is commonplace.

On the negative side, some plans demonstrate little real effort to implement the provisions of the WFD, and basically dress "business-as-usual" as WFD implementation. The programmes of measures are often too vague, lacking concrete definition of the measures, financial commitments, identification of the key actors and responsibilities. Despite the extensive development of guidance documents within the CIS process, there are still some areas where the lack of comparability is an issue (e.g. chemical status). It is acknowledged, however, that the general level of comparability in implementation has been significantly improved by the CIS guidances.