

Article

Undermining European Environmental Policy Goals? The EU Water Framework Directive and the Politics of Exemptions

Blandine Boeuf ^{1,*}, Oliver Fritsch ² and Julia Martin-Ortega ¹

¹ Sustainability Research Institute, School of Earth and Environment, University of Leeds, Woodhouse Lane, Leeds LS2 9JT, UK; J.MartinOrtega@leeds.ac.uk

² School of Geography, University of Leeds, Woodhouse Lane, Leeds LS2 9JT, UK; o.fritsch@leeds.ac.uk

* Correspondence: eebgb@leeds.ac.uk; Tel.: +33-782-777-730

Academic Editor: Y. Jun Xu

Received: 27 June 2016; Accepted: 29 August 2016; Published: 8 September 2016

Abstract: The Water Framework Directive (WFD) is the core legislative instrument in the European Union for the protection of water resources. Adopted in 2000, its objectives were to achieve “good status” for water bodies by 2015 and prevent any further deterioration. However, the European Commission and some stakeholders are rather dissatisfied with the implementation of the Directive so far, in particular with the use of exemptions to the environmental objectives. Exemptions are of paramount importance: they may constitute a significant obstacle to the achievement of the WFD’s objectives as they enable member states to lower the ambition of the Directive and to delay the achievement of good status, thereby undermining the environmental goal of the WFD. Critical voices observe an excessive reliance on exemptions, poor justifications, and great variations in their use. Based on an analysis of 120 policy documents and 15 semi-structured interviews, this article provides explanations for the politics of exemptions in EU water management. It shows that different viewpoints and interpretations on the WFD’s objectives and exemptions were already present in the negotiation phase of the Directive, but remained undefined on purpose. Moreover, dysfunctional decision-making procedures in the Common Implementation Strategy and the lack of political support in WFD implementation were significant obstacles to an agreement on this important issue. Finally, decisions on WFD implementation in member states were often driven by pragmatism. The article explains how the negotiations of the WFD and the EU-level discussion on the implementation of the Directive undermined environmental goals in EU governance; its findings are also relevant for policy fields other than water.

Keywords: Water Framework Directive; governance; exemptions; economic analysis

1. Introduction

The Water Framework Directive (WFD, 2000/60/EC) is the principal legislative instrument for protecting water resources in the EU. Adopted in 2000, it aims to achieve a “good status” for all water bodies in Europe and to prevent any further deterioration. In order to reach this ambitious goal, the WFD requires EU member states to manage water at hydrological units, to prepare strategic River Basin Management Plans (RBMP) and more operational Programmes of Measures (PoM) and, while doing so, to engage with stakeholders and the wider public. This article explores a widely understudied aspect of the Directive: the politics of exemptions in EU water planning.

Exemptions are the thorn in the side of the WFD. Exemption clauses are present in the WFD alongside environmental objectives. They enable member states to delay the achievement of good water status up to twelve years [1], to abandon the overall accomplishment of good status and aim

at “less stringent objectives” instead [2], and to deteriorate water quality even further for projects of “overriding public interest” [3]. At the same time, exemptions are a major source of concern for many. Although they may seem desirable in specific cases, exemptions may, if overused, torpedo the WFD’s water quality goals and a number of other ambitious European policies such as the EU’s Environmental Action Programme to 2020.

The European Commission, stakeholders and academics have all expressed their disappointment with the progress made in Europe so far [4–7]. According to the Commission [8], in 2012 only 53 per cent of all water bodies were expected to be in good status by 2015 (more up-to-date projections are not available at the time of writing). While the causes for the dire performance are complex, exemptions certainly play a role: “The extensive use of exemptions may reflect the low level of ambition in many of the plans as regards achieving the environmental objectives” [9].

Up to 2012, deadline extensions were granted for 40 per cent of all surface water bodies and eleven per cent of all groundwater bodies. Furthermore, member states authorised the achievement of “less stringent objectives” for 19 per cent of all surface waters and one per cent of all groundwater bodies [10]. What is more, the number of exemptions is likely to be higher in the current planning cycle [11]. The European Commission assessment reports from 2012 on river basin management plans for each member state reveal a great degree of variance between EU countries and type of exemption. While the UK granted deadline extensions in 8914 cases, the Czech Republic did so 974 times and Slovenia only 19 times. At the same time, member states authorised many more deadline extensions than exemptions related to “less stringent objectives” and “further deterioration due to projects of overriding public interest”.

Problematically, member states poorly justify the use of exemptions. Applications for exemptions usually lack information on methods, decision criteria, and underlying assumptions as well as economic data and analyses. When information is provided, Europe-wide comparisons suffer from the fact that countries seem to use very different techniques to establish cases for exemptions. For example, exemptions granted due to disproportionate costs rely on methods as diverse as cost–benefit analysis (CBA), ability-to-pay, financial impacts or distributional effects [10,12].

The politics of exemptions has, surprisingly, rarely been addressed in the literature. The Directive enjoys wide scholarly attention (for a systematic review, see [13]), yet a majority of studies focus on river basin management and public participation in WFD water planning (e.g., [14,15]). Studies on the other economic elements of the Directive such as cost-recovery and cost-effectiveness are scarce as well [13]. Previous works discuss exemptions in three ways.

First, a few studies have analysed in depth the negotiations and the early days of the Directive [16–19]. Exemptions are mentioned but do not fare very prominently. Second, others explore empirically the actual use of exemptions, disproportionality assessments—A possible economic justification for exemptions—and economic tools in WFD implementation [20–24]. The message this literature sends out is that exemptions are used and justified in very different ways, and that the role of the EU is somewhat opaque here. Third, another strand of research takes the insight that “objective criteria” for the use of exemptions are missing in the WFD [25] as a starting point and combines case studies with normative considerations, providing interpretations, justifications and guidance, often with reference to the concept of “disproportionality”. This concept describes the possibility that the monetary costs of achieving a good ecological status may be disproportionately high when compared to the economic and social benefits [26,27].

Building on the above, this article seeks to trace the EU level debate on exemptions in WFD water planning since the beginning of negotiations to the present day, with a particular focus on disproportionality as a possible justification, in order to understand the critiques made on their use by member states. However, this article does not take a position in this debate; rather, we show the various viewpoints held by the different parties during the negotiation of the WFD. We also aim to understand how the debates that occurred during the process of drafting guidelines for WFD implementation failed to come to a common understanding on exemptions. These controversies and the inability

to find an agreement may explain why member states use exemptions extensively and justify them poorly, resulting in the chequered pattern heavily criticised by the Commission.

2. Data and Methods

This article undertakes an in-depth analysis of 120 policy documents and 15 semi-structured interviews with representatives from various EU institutions, member states and NGOs, covering three important periods in the WFD life cycle: (a) the negotiations of the Directive, that began in 1996 with a European Commission communication on the future of EU water policy, followed in 1997 by a Commission proposal for a new EU directive in the field of water policy, and ended in 2000 with the adoption of the Directive; (b) the phase of working on the Common Implementation Strategy (CIS); and (c) the implementation in EU member states after 2009 until 2015. Interviews were transcribed and all materials analysed using the NVivo software. A summary of the types of materials and the processes analysed is presented here and outlines the temporal logic used to sort and analyse the data. Further information on data and methods are available in the Supplementary Materials (Figure S1, Tables S1–S7).

The negotiations of the WFD: We identified 40 documents drafted in preparation of the Directive, including draft proposals from the Commission, and responses and position papers from the European Parliament (EP), the Council of Ministers, the Economic and Social Committee, and the Committee of the Regions.

The CIS, established in 2001 by the Commission and member state practitioners, aims to specify and operationalise the Directive and to resolve technical controversies through implementation guidelines. Our analysis, based on 41 documents, mainly focuses on the period 2001 to 2009 when key decisions on exemptions to WFD water policy goals were taken. We examined CIS strategy documents, work programmes and minutes of meetings held by national water directors with a view to extracting more high-level, political positions. We then moved on to study the more technical, operational level of drafting implementation guidelines, thereby examining minutes of workshops and meetings, NGO inputs as well as draft and final implementation guidelines.

Finally, we analysed the post-2009 implementation phase, i.e., the period in which EU member states implemented the first RBMPs (a total of 39 documents). Again, we returned to the CIS to explore how national positions and practices influenced EU level debates and helped shape Europe-wide solutions. We also looked into documents providing insights into the more recent thinking of the European Commission and analysed legal proceedings.

3. Negotiating the WFD: Opposing Views

When the European Commission presented their first proposal in February 1997 for what would later become the WFD, many had already anticipated lengthy negotiations between the key actors at the European level. These include the Commission, the Parliament, and the Council of Ministers, with the latter representing the relevant national ministers in the field of water protection. In particular, the EP expected a major increase of power vis-à-vis the Council through the Treaty of Amsterdam, which was about to enter into force in January 1999 [17].

Although the Council and the Parliament were generally working towards similar aims, the proposal contained quite a few sensitive spots, resulting in a dispute that required a formal conciliation procedure and numerous concessions from either side. Amongst others, the protection of groundwater, the emission of various hazardous substances, and the cost-recovery of water services proved to be sore points [16,17]. The relationship between the Commission and the Parliament, in contrast, is traditionally very close in the field of environment [28], and both actors largely supported each other during the WFD negotiations.

3.1. Ambitions and Deadlines

The Directive aims to achieve “good status” for all water bodies in Europe. The term “water status” brings together chemical, biological and hydromorphological parameters for surface waters,

measured at a scale from “high”, “good”, “moderate”, “poor” to “bad”. Groundwater, in contrast, may be in “good” or “poor” status, based on chemical and quantitative criteria.

Arguably, even the most ambitious policies are of little value if exemptions exist in such a way that they enable actors to endlessly delay or entirely suspend their implementation. Because objectives and exemptions justifying the departure from “good status” for water bodies represent two sides of the same coin, the overall ambition of the WFD and the exemptions were negotiated as a package. Three aspects were of particular importance:

- Degree of ambition: While a majority in the EP supported a very ambitious interpretation of the goals of the Directive, member state governments, and hence the Council, displayed concern over the effects of the Directive on industries and the agricultural sector [16,18].
- Legally-binding nature of ambition: The Council strongly favoured a legal text emphasising aspirations. The Parliament, in contrast, supported legally binding, measurable changes (INT13). The disagreement was never fully resolved, and the final text still contains slightly contradictory statements. For instance, member states “shall protect, enhance and restore all bodies of surface water” (rather than “shall aim to”), “with the aim of achieving” (rather than “achieve”) WFD objectives [29]. This resulted in disagreement amongst jurists as to the legal bindingness of those provisions [30,31].
- Time frame: Finally, the European institutions held divided viewpoints over the time granted to achieve the objectives. While the EP requested ten years, the Council suggested 16 [32,33]. The final text established 15 years. However, the Conciliation Committee reduced the number of deadline extensions beyond the original 15 years period, from three (as proposed by the Council) to two six-year management cycles.

The above controversies highlight a theme that characterises the WFD drafting process more generally: the Commission and the EP preferred to take a strict and ambitious viewpoint, whereas the Council sought to water down the content of the Directive.

3.2. Implementation Costs

The above debate on the ambitions of the WFD reflects a general concern over the costs associated with the implementation of the Directive [34]. This is hardly news: the question of expenses has always been at the heart of the conflict between environmental pioneer countries in the EU and those taking a more reluctant approach [35].

Concerns over costs may first relate to affordability: Some member states may not be in a position to make the necessary investments to improve water quality over a short time-period, independently of the long-term gains. The costs of the WFD implementation were not assessed during the negotiation, since data on water status and necessary measures were lacking back at that time [36]. Be it as it may, the very absence of reliable evidence with regards to the implementation costs involved was a major source of concern and resulted in conservative positions on the side of the Member States. The latter in particular wanted to avoid experiences similar to the ones made with the 1991 Urban Waste Water Treatment Directive, which caused unexpected expenses (INT07; INT10; [19]). The Commission tried to calm the waters by arguing that “the probable costs of this proposal will be affordable over the timescale involved” [37]. However, the Spanish delegation came to very different conclusions, casting doubt over the optimistic estimates provided by the Commission (INT07).

Second, concerned countries may argue that the costs of the WFD exceed the benefits, or that investment into policy areas other than water promises higher benefits than the WFD does. In other words, concerns can relate to the cost–benefit ratio. During the negotiations, the Council requested a CBA of the Directive. However, the Commission denied the request, arguing that member states should perform such an analysis during the elaboration of the RBMPs [34]. Furthermore, the merits of cost–benefit analysis are hotly disputed in environmental policy and management, not the least because of the difficulty, if not impossibility, to “price the priceless” [38]. Consequently, there was no

serious attempt to assess the pros and cons of the WFD at this stage—and no systematic discussion of the benefits and costs over time. Finally, no attempt was made to compare the benefits associated with the WFD to those related to alternative environmental or non-environmental policies. This would have required a full impact assessment, a tool that was introduced at EU level in 2003 only [39].

In terms of strategy, the logical consequence for member states in this framework of uncertainty was to negotiate the WFD such that defensive measures against undue expenses were built directly into the Directive: Reduce the overall ambition of the WFD, reduce the legal bindingness of its objectives, or ensure a longer implementation period to distribute implementation costs over time, as shown above. Another strategy was to negotiate a set of exemptions that, in spite of a high overall ambition of the Directive, would enable member states to take defensive measures in specific circumstances.

3.3. Negotiating Exemptions

Although objectives and exemptions represent two sides of the same coin, the objectives of the WFD became a major bone of contention. Exemptions played a marginal role only. Plausibly, the whole idea of “exemptions” presupposes that the overall intention of the WFD is accepted, although additional rules may be required to govern exceptional situations. However, the fact that the negotiating parties spent more time discussing the overall ambition of the Directive rather than occasional departures from its objectives may suggest that, in fact, not all negotiating parties actually shared the overall vision of the WFD.

The positions held by the Council and the EP hereby did not differ very much from their views about the overall objectives: the Parliament maintained that exemptions should be used in exceptional circumstances only in order to avoid overuse, abuse and patterns that would turn the overall ambition of the Directive on its head. The EP therefore sought to reduce the overall scope and applicability of exemptions and to develop strict and unambiguous criteria for their use [33]. The Council, in contrast, showed a more diverse picture, from environmental pioneer countries keen to adopt a rather strict piece of legislation to member states supporting more moderate positions. However, a majority was in favour of relaxed criteria for exemptions (INT07). Our discussion below on deadline extensions highlights this general pattern.

3.4. The Case of Deadline Extensions

The question of deadline extensions, their length and the conditions under which they should be granted, was amongst the most controversial topics to be discussed during the negotiations (INT12). Other exemption clauses, in particular on more relaxed policy objectives, were much less debated. Two themes emerge from the discussion.

- **Justifying and approving exemptions:** In the original Commission proposal three requirements had to be met: Delay only if natural conditions do not allow rapid improvements, provision of evidence that all necessary measures were taken, and written justification in RBMP. The Council agreed that RBMPs were the right place to provide such justifications yet highlighted the necessity to work out “appropriate, evident and transparent criteria” for deadline extensions (but probably to be developed in comitology committees or the CIS) [40]. The Parliament, instead, held that member states criteria were insufficient and suggested that the Commission, as the Guardian of the Treaty, should approve each individual deadline extension [33], a proposal the Commission found to be excessive [41]. Nevertheless, the Commission ensured that they would review deadline extensions and less stringent objectives ex post “to ensure a full and consistent implementation of the Directive” [42]. The final text is based on the proposal made by the Council.
- **Scope of application:** The Council [43] took a more adversarial stance vis-à-vis the Commission which held that extensions of timescales should only apply if improvements of water status were prevented by unfavourable natural conditions. Instead, member states shall be able to extend deadlines “for the purposes of phased achievement of the objectives”, if “all improvements

in the status of bodies of water cannot reasonably be achieved within the timescales set out". In other words, the Council requested a *carte blanche* to grant deadline extensions for a variety of undefined reasons. Moreover, the Council added in the Preamble: "Member States may phase implementation of the programme of measures in order to spread the costs of implementation". They thus tried to address their concerns related to costs through deadline extensions. The position of the Parliament helped to craft a compromise here. The EP identified three clearly defined justifications for deadline extensions: unfavourable natural conditions, technical unfeasibility and disproportionate costs [33]. The Conciliation committee partly accepted the formulation of the Council, i.e., that deadlines "may be extended for the purposes of phased achievement of the objectives", with the addition that "no further deterioration occurs" [1].

3.5. The Case of Disproportionality

During the negotiations, disproportionality of costs or expenses emerged as a possible justification for exemptions, along with technical feasibility and natural conditions. Although no debate occurred on the precise meaning of this term, it seems that misconceptions about its definition were widespread. This may be explained by the limited involvement of economists during the WFD negotiation, which often included engineers or water scientists (INT07; INT08). Moreover, negotiators had little incentive to address the issue; after all, terminological vagueness or confusion can be a useful thing to exploit during the implementation phase. Some members of the Parliament may also have purposefully kept this ambiguous wording in the proposal. Their motivation may have been a genuine support for subsidiarity, i.e., to take action at the European level only when they can be better achieved than at member state level, or a strategic move to downplay the environmental ambition of the WFD (for a general discussion, see [44]). The transcript of debates that took place at the Parliament for the second reading indeed show that some MEPs were concerned with the costs and the economic impacts of the WFD, in particular for farmers and industries. Having this possible strategic misuse in mind, the Economic and Social Committee [45] warned that such terms would be "dangerous to interpret" and suggested a more precise definition, for instance a specific cost–benefit ratio that would take into account social and environmental benefits of improving water quality. However, those recommendations were not followed. Table 1 provides a summary of the different positions held by each institution.

Table 1. Position of each institution during the negotiation.

Topic	European Commission	European Parliament	Council of the European Union
Degree of ambition	Ambitious	Very ambitious	Less ambitious
Legally-binding nature of ambition	Legally binding	Legally binding	Aspirational
Time frame	10 years for implementation	10 years for implementation, 12 years for deadline extensions	16 years for implementation, 18 years for deadline extensions
Exemptions	Exceptional use	Exceptional use, stringent criteria	Use for phased achievement, relaxed criteria
Justifying and approving exemptions	The EC should review exemptions	The EC should approve each exemption	Member States should provide criteria and justifications for exemptions
Deadline extensions: Scope of application	Unfavourable natural conditions	Unfavourable natural conditions, technical unfeasibility, disproportionate costs	Phased achievement of the objectives

To sum up, despite their explosive potential the negotiating parties did not devote much time and attention to the intricacies of exemptions to the WFD's water quality goals. Key terms qualifying the use of exemptions, such as "disproportionality", remained undefined and, in this way, served political agreement. The next section will explore whether the more technical discussions surrounding the CIS

were able to fill the above key terms with meaning or whether the lack of definition provided a basis for a fragmented and lacklustre implementation in member states.

4. The Common Implementation Strategy: A Technical Debate over a Political Issue

The CIS is a network of water practitioners and stakeholders, established in 2001 by the Commission and EU member states with a view to harmonising WFD implementation. To this end, CIS participants work to develop a common understanding of the Directive, share methods and technical knowledge, to exchange information and draft implementation guidelines. The CIS is organised around a number of working groups, which reflect key challenges to WFD implementation, such as groundwater, climate change and monitoring. The water directors, high-rank domestic bureaucrats in the field of water, steer the CIS, define working group mandates, approve guidance documents and take the final decisions. The informal character of the CIS was never questioned, and CIS outputs, in particular implementation guidelines, are legally non-binding [46].

4.1. Discussing Exemptions in the CIS

Exemptions were first mentioned in the CIS Working Group on Water and Economics, established to develop a guideline to support the implementation of the economic provisions in the Directive [47]. This guidance document mainly focuses on the role of economic instruments during the characterisation of water bodies, the management of heavily modified water bodies, and the application of the cost-recovery principle (*ibid*; INT06). Consequently, exemptions played a minor role only; the document presented various ways to think about exemptions, but did not take a clear-cut position and offered few hands-on recommendations for practitioners (INT10).

The debate picked up steam in 2006 when the water directors identified exemptions as a priority topic and, shortly thereafter, when they called for a common approach [48,49]. In 2009, a CIS guidance document was published focusing on exemptions [50].

The 2003 and 2009 guidelines helped to specify a number of provisions left open during the negotiations. First, it was acknowledged that decisions on disproportionality are political in nature. Economic analysis therefore may support, but never determine such decisions [50] (also INT05). Second, CIS partners agreed that a step-wise process should be used that prioritised deadline extensions over the achievement of less stringent objectives [47] (also INT08; INT15). Third, even if an exemption was applied, all feasible measures to improve water quality should be taken [51].

On the other hand, no agreement was found with regards to the frequency of exemptions granted in WFD water planning. While the Commission emphasised once more that exemptions were the last resort [49,52] (also INT15), and should not serve “as a wide backdoor for not taking actions” [53], some member states had, in the meantime, carried out an economic analysis and knew that they would need to rely on exemptions more often than anticipated during the negotiations, due to the high costs involved (INT05; INT11).

4.2. Disagreements on Disproportionality Assessments in the Preparation Phase

According to the WFD, Member states have the possibility to justify exemptions if restoration measures imply disproportionate costs or expenses. Members of the working group on economics first interpreted disproportionality assessments in light of economic theory as a comparison of costs and benefits. The costs of implementing restoration measures could be defined as “disproportionate” for a specific water body when the financial and indirect costs of the necessary measures would outweigh the environmental and economic benefits of achieving good status by an “appreciable” margin [54] (also INT09). Much of the debate would then centre on the precise cost–benefit ratio, to justify disproportionality.

However, the method used to justify disproportionate costs was increasingly debated. Two questions were raised: whether another approach, “ability to pay” (also referred to as “affordability”) could be a valid justification for disproportionality assessments and, if so, how to

include and apply this concept in practice [51,55] (also INT08). The ability to pay does not take into account environmental benefits. It compares the costs of restoration measures with the financial capacity of payers to fund these measures. As such, it considers distribution issues and financial impacts on payers as a priority. Affordability may apply to water services users (e.g., households and their ability to pay for their water bills) or to the PoM payers (e.g., private funding, polluters or the public budget) [56,57].

The debate between advocates of CBA and the affordability principle for the assessment of disproportionate costs had in fact four dimensions: methodology, the ambition of the WFD, water management principles, and wider political concerns.

Methodology: The methodological debate did not focus on the threshold to define disproportionality. There was a fair consensus that this had to be defined by member states, on a case-by-case basis. The discussion centred on against what costs should be compared: benefits or financial capacities. Although both praised and criticised in the academic realm, academics have developed numerous methods to calculate costs and assess environmental benefits. Affordability in contrast does not take a prominent role in the policy appraisal literature [58]. In particular, few criteria exist in the literature to assess affordability. There is one exception: water bills that amounted to three per cent of a households' income are generally considered as a poverty threshold [59]. This methodological difference, i.e., the presence of widely shared methods and criteria for CBA and their absence for affordability, may explain why the European Commission and some member states favoured CBA as a method. First, they supported CBA as a "good practice", although affordability proponents questioned the robustness of the method (INT05; INT06). Second, if CBA was used, the Commission could more easily review justifications and check or re-do the analysis (INT01; INT10). The Commission perceived CBA as a guarantee that member states would not "tweak" economic analyses so as to downplay the objectives (INT05).

WFD ambition: Methodological choices influence the overall goals of the WFD and the financial resources made available to achieve them. The Commission and a few member states feared that ability to pay could "water down the ambition of the Directive" [53] (INT05). This concern was greatest for justifications based on constraints to the public budget that would restrict the scope of the PoMs [51]: The Commission feared that member states would simply not make available the necessary financial resources to achieve good status. Still, some member states preferred the affordability principle, because it serves to distribute implementation costs over the three management cycles, based on the resources actually available [49]. As a consequence, some of the member states that were first in favour of CBA assessments increasingly considered the ability to pay as a possible justification, due to constraints to the public budget or the economic crisis (INT09; INT10). The Commission [4], in contrast, strongly supported cost-benefit assessments. An explanation could be that the Commission hoped to see the WFD ambition rise as a result of this assessment. However, this strategy is arguable: there is no guarantee that, for a given water body, a CBA would less likely lead to an exemption than an affordability assessment. Moreover, when costs are higher than benefits, a CBA could lead member states to divest money away from water policy towards other policy areas with a better cost-benefit ratio.

The polluter pays and cost recovery principles: The opponents of the ability-to-pay principle raised another argument. Affordability may conflict with the polluter-pays principle, which should be at work to fund PoMs, and the cost-recovery principle, in particular water tariffs that should incentivise water users to consume or pollute less [60] (INT09; INT11). The discussions that took place during the WFD negotiations on cost-recovery [18] show how contentious this issue was between member states and the Commission.

Economic efficiency versus social concerns: Finally, this debate went beyond a mere expert argument over the most rigorous economic method to use to justify disproportionality. In fact, it mirrored deeper socio-political discrepancies between member states and with the Commission. Affordability, because of its focus on distribution issues and financial impacts can be considered as

a “social-minded” approach [61,62]. Conventional CBAs instead focus on efficiency, on maximising human welfare, and although distribution effects can be theoretically incorporated [63], analysis of affordability does not enter the equation [26].

Therefore, the debate on the right method to assess disproportionality may reflect a deeper political conflict: while some countries and the Commission strongly support the use of economic tools and principles for environmental protection, other member states were more concerned with the distribution of costs to other stakeholders and social consequences.

The agreements finally reached were: CBA or ability to pay may be used for deadline extensions. When affordability is considered, the consequences of non-action (i.e., forgone benefits) should be assessed and alternative financing taken into account, for instance the public budget or European funds. The idea was to not only take into account budgetary or financial considerations, but also to consider the environmental consequences of not achieving good status. No agreement was reached on the method to use to justify exemptions related to less stringent objectives [51,64]. In the end, the CIS only agreed to advocate water management based on data and methodologies, transparency and some degree of public participation in decisions on exemptions [50,52,64,65]. In particular, decisions, criteria and methods used to take the decision should be explained and justified [51] (also see INT15).

4.3. Reasons for the Failure to Come to an Agreement on Exemptions

Failure to reconcile different positions on exemptions in the framework of the CIS may be attributed to the inability of the CIS, through its structure and functioning, to tackle political issues.

First of all, as it has been shown, the topic is highly political. The WFD provisions on exemptions leave a door open for member states to prioritise social, economic or other environmental policy goals over the WFD objectives. The argument of disproportionate costs may be used so as to adapt the ambition of the Directive to political priorities identified at the national level. These political choices cannot be settled in decision-making contexts such as the CIS: participants are experts in specific areas and develop technical solutions to practical issues. Consequently, debates remain on the technical level, which does not necessarily consider the WFD ambition.

Second, the CIS was designed to adopt technical non-legally binding implementation guidelines. As a consequence, members of working groups, in general academics and representatives from member states administrations (INT09), did not have the mandate to negotiate political issues.

Third, even if CIS working groups came to an agreement on political issues, water directors were able to veto unwelcome decisions. This situation weakened the ambition of the agreements taken in working groups [66,67] and was a substantial obstacle to highly political decisions.

However, it was not only the structure of the CIS that prevented agreements on exemptions. The Commission and member states increasingly adopted a defensive strategy that impeded the crafting of a compromise (INT08; INT10; INT11).

On the one hand, the Commission strongly opposed provisions it did not agree with (INT06; INT10): For example, when the first cycle started in 2009 the water directors raised the issue of ability to pay once again [56]. Five years later, the Working Group on Economics agreed to produce a guidance document on ability to pay for the PoMs in order to gather experiences from member states and to define a common method [57]. However, the Commission was dissatisfied, and the document was abandoned and never released (INT10). This behaviour can be explained by the uneven distribution of power within the CIS: The common strategy included Commission officials and member state representatives. The EP was not involved. Due to the absence of the Parliament, whose positions were close to the viewpoints held by the Commission, member states had more weight to shape implementation guidelines in a preferred direction. The Commission thus had difficulties steering CIS decisions and had to take a strong defensive position.

On the other hand, there was a lack of political support from member states to define common criteria and thresholds for disproportionality: within CIS working groups, representatives from France and The Netherlands proposed common criteria for the use of the affordability principle (e.g., in

terms of percentage of GDP, increase in water bill) or common practices (e.g., focus on macroeconomic costs), but they did not gain political support from the water directors (INT14). Member states may have preferred to invoke the subsidiarity principle when it came to disproportionality assessments. Alternatively, EU countries may have been wary “because once there is a specific definition [. . .] you can make member states accountable” (INT14). After all, an agreement on specific methods or criteria at EU level would have greatly limited the scope of action for member states to depart from those criteria, to adapt them at the local level or to take into account more political considerations, without risking an infringement procedure. This fear of infringement procedures and financial penalties may explain an apparent contradiction: while member states asked for guidance on exemptions to anticipate possible infringement cases, they refused to come to an agreement that would make them accountable. Another explanation could be that countries had increasing difficulties implementing the WFD within the given timeframe. Consequently, they may have become less inclined to come to an ambitious consensus.

5. Beyond Policy: The Pragmatism of the WFD Implementation

In 2009, EU member states began to put RBMPs into practice and hence to engage more directly with exemptions and their justification. For this reason, the debate on exemptions largely moved to the national level, and discussions at EU level became less intense.

However, the implementation on the ground triggered a new controversy: “a battle between pragmatism and idealism with respect to achieving objectiveness and applying exemptions” [68]. The Commission supported an “idealistic” position whereby justifications rely on a defined method, transparent criteria and “proper economic analysis” based on a CBA to inform the political decision and the public (INT01; INT02; INT10; INT15).

In this framework, the Commission requested better justifications, in particular more data, to understand challenges to WFD implementation, to discuss future strategies, and to ensure accountability (INT01). This includes data related to the costs of PoMs, the costs of not achieving WFD objectives, and the benefits of reaching good status [4]. The Commission launched a call for research proposals to help member states produce more and better data. The project finally commissioned, AquaMoney, aimed to provide technical guidance to help practitioners assess the costs and benefits of the WFD [69].

Member states, in contrast, preferred “pragmatic” approaches (INT03), e.g., approaches that limit the monetisation of benefits [70], keep the analysis simple whenever possible [65] or apply a screening procedure to reduce the level of detail of the analysis (INT08).

In particular, there was some scepticism about CBA and, more precisely, methods that aim to value benefits monetarily, due to the costs and time involved, the lack of skilled human resources to perform such methods, and their methodological limitations [71,72] (also INT03; INT08). Moreover, some member states questioned their usefulness in achieving transparency and informing public participation exercises; furthermore, their intelligibility for non-experts was queried [73]. Consequently, CBA was used to a limited extent only: “There is no point, there was no time, there was no money” (INT03).

Affordability was perceived as a more feasible and pragmatic approach than CBA [49,55]. Apparently, member states informally agreed to use ability-to-pay as a tool to screen measures. If they could be paid for, then they should be implemented; if not, then a more in-depth analysis should be performed (INT08).

In addition, many water managers had a background in engineering and found it difficult to collect data and design and implement economic methodologies, in particular to justify exemptions [23,71,74] (and INT11; INT14).

Consequently, the Commission expected a certain standard for the justification of exemptions, i.e., an extensive and detailed economic analysis. This made sense if exemptions were rarely used. However, countries planning to rely more extensively on exemptions had to face time, budgetary

and skills-related constraints to comply with this standard. This gap between the Commission's expectations and domestic implementation fed the critiques of some stakeholders on the justification of exemptions.

6. Conclusions

While the WFD sets ambitious goals for water protection in Europe, the existence of several exemption clauses, if overused, can seriously undermine the environmental goals of EU policy. The European Commission and stakeholders are thus worried to see exemptions used extensively, justified poorly, and implemented in very different ways across Europe. This article offers an explanation of this situation so that insights can be gained regarding the lowering of EU's environmental goals, in relation to the WFD and environmental legislation more broadly. It traces the history of the negotiations (1995–2000), the discussions that took place in the framework of the CIS following the negotiations (2003–2009) and the implementation of the Directive (post-2009).

Our findings show that member states and the European Commission had very different perceptions about the use and justification of exemptions. First, during the WFD negotiation, member states were concerned with the implementation costs involved. In the absence of data on costs, they tried to lower the objectives and include exemption provisions, not for exceptional cases, but so as to spread costs over time. Second, the CIS failed to find a common agreement on ambiguous terms such as “disproportionate costs/expenses”, since participants rarely had the mandate to negotiate this topic and lacked the political support, not least due to fears of infringement procedures that could be initiated in response to failure to comply with ambitious methods and goals. Third, pragmatic considerations often led member states to justify exemptions in their own ways or not to justify them at all.

Future research could complement this work with further in-depth national and cross-country comparisons of the implementation of exemptions, in order to better understand on a case-by-case basis how exemptions are implemented and justified across the EU. Also, if academics sought to further develop methodologies to justify disproportionate costs in member states, they should do so in a rigorous but pragmatic way which would be as little time and resource consuming as possible (but see [27]).

This research has suggested that exemptions and the ambiguity of terms related to exemptions partly resulted from the uncertainty about the costs and benefits of the WFD during the negotiations. Therefore, if the WFD will be revised in 2019 as planned, an impact assessment could help establish a common frame of reference and data basis for all negotiating parties with a view to reducing the desire to resort to exemption clauses. Moreover, all negotiating parties, in particular the European Commission, should be aware of the potential danger of exemption clauses in EU directives. Ideally, key terms should be well defined during the negotiations in order to reduce or even avoid any sense of ambiguity, since a common understanding is very difficult to settle later. Another option would be to change the CIS framework and take it to a higher level, so as to enable political decisions to be taken, e.g., by involving the Council of Ministers or the European Parliament. Discussions on exemptions should leave the expert sphere and consider political implications in open debate. Finally, such discussions should address what is at the heart of the debate on exemptions: whether and how the protection of water resources can be prioritised vis-à-vis other environmental or even non-environmental policies. In times in which the EU is increasingly questioned, it is important to wave the flag for one of its core pillars, i.e., to develop and maintain ambitious environmental policies with a view to ensuring the well-being of EU citizens and future generations.

Supplementary Materials: The following are available online at <http://www.mdpi.com/2073-4441/8/9/388/s1>.

Acknowledgments: This research was sponsored by the School of Earth and Environment, University of Leeds and by water@leeds. We would like to thank Julia Steinberger for her advice in the research design and the writing of the manuscript. We warmly thank William Hankey for assistance in editing the manuscript. Finally, we thank the anonymous reviewers for their very useful comments.

Author Contributions: Blandine Boeuf designed this research, collected and analysed the data and wrote the paper. Oliver Fritsch contributed to the research design, the interpretation of results and their discussion and to the writing. Julia Martin-Ortega contributed to the interpretation of results and their discussion and to the writing of the paper.

Conflicts of Interest: The authors declare no conflict of interest.

References

1. European Parliament; Council of the European Union. *Article 4.4. 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*; Official Journal of the European Communities: Brussels, Belgium, 22 December 2000; p. 10.
2. European Parliament; Council of the European Union. *Article 4.5. 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*; Official Journal of the European Communities: Brussels, Belgium, 22 December 2000; p. 10.
3. European Parliament; Council of the European Union. *Article 4.7. 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*; Official Journal of the European Communities: Brussels, Belgium, 22 December 2000; p. 11.
4. European Commission. *Commission Staff Working Document, Impact Assessment, Accompanying the Document: Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, a Blueprint to Safeguard Europe's Water Resources*; European Commission: Brussels, Belgium, 2012.
5. World Wildlife Fund. *Securing Clean and Healthy Rivers. Second Cycle River Basin Management Plans—An Opportunity for Improved Water Management in Europe*; WWF: Brussels, Belgium, 2015.
6. Richter, S.; Völker, J.; Borchardt, D.; Mohaupt, V. The Water Framework Directive as an Approach for Integrated Water Resources Management: Results from the Experiences in Germany on Implementation, and Future Perspectives. *Environ. Earth Sci.* **2013**, *69*, 719–728. [[CrossRef](#)]
7. Kanakoudis, V.; Tsitsifli, S. On-Going Evaluation of the WFD 2000/60/EC Implementation Process in the European Union, Seven Years after Its Launch: Are We behind Schedule? *Water Policy* **2010**, *12*, 70–91. [[CrossRef](#)]
8. European Commission. *Report from the Commission to the European Parliament and the Council on the Implementation of the Water Framework Directive (2000/60/EC) River Basin Management Plans*; European Overview Accompanying the Document; European Commission: Brussels, Belgium, 2012; p. 174.
9. European Commission. *Report from the Commission to the European Parliament and the Council on the Implementation of the Water Framework Directive (2000/60/EC) River Basin Management Plans*; European Overview Accompanying the Document; European Commission: Brussels, Belgium, 2012; p. 181.
10. European Commission. *Report from the Commission to the European Parliament and the Council on the Implementation of the Water Framework Directive (2000/60/EC) River Basin Management Plans*; European Overview Accompanying the Document; European Commission: Brussels, Belgium, 2012.
11. WRc. *Screening Assessment of Draft Second Cycle River Basin Management Plans*; WRc: Swindon, UK, 2015.
12. European Commission. *Accompanying the Document 'Communication from the Commission to the European Parliament and the Council; The Water Framework Directive and the Floods Directive: Actions towards the 'Good Status' of EU Water and to Reduce Flood Risks*; COM(2015) 120 Final, SWD(2015) 50 Final, Commission Staff Working Document, Report on the Progress in Implementation of the Water Framework Directive Programmes of Measures; European Commission: Brussels, Belgium, 2015.
13. Boeuf, B.; Fritsch, O. Studying the Implementation of the Water Framework Directive in Europe: A Meta-Analysis of 89 Journal Articles. *Ecol. Soc.* **2016**, *21*, 19. [[CrossRef](#)]
14. Blackstock, K.L. Between a Rock and a Hard Place: Incompatible Objectives at the Heart of River Basin Planning? *Water Sci. Technol.* **2009**, *59*, 425–431. [[CrossRef](#)] [[PubMed](#)]
15. Jager, N.; Challies, E.; Kochskämper, E.; Newig, J.; Benson, D.; Blackstock, K.; Collins, K.; Ernst, A.; Evers, M.; Feichtinger, J.; et al. Transforming European Water Governance? Participation and River Basin Management under the EU Water Framework Directive in 13 Member States. *Water* **2016**, *8*, 156. [[CrossRef](#)]
16. Kaika, M. The Water Framework Directive: A New Directive for a Changing Social, Political and Economic European Framework. *Eur. Plan. Stud.* **2003**, *11*, 299–316. [[CrossRef](#)]

17. Kaika, M.; Page, B. The EU Water Framework Directive: Part 1. European Policy-Making and the Changing Topography of Lobbying. *Eur. Environ.* **2003**, *13*, 314–327. [[CrossRef](#)]
18. Page, B.; Kaika, M. The EU Water Framework Directive: Part 2. Policy Innovation and the Shifting Choreography of Governance. *Eur. Environ.* **2003**, *13*, 328–343. [[CrossRef](#)]
19. Aubin, D.; Varone, F. *European Water Policy: A Path towards an Integrated Resource Management*; Final Report for the EUWARENESS Project; University of Twente: Enschede, The Netherlands, 2002.
20. Brouwer, R. The Potential Role of Stated Preference Methods in the Water Framework Directive to Assess Disproportionate Costs. *J. Environ. Plan. Manag.* **2008**, *51*, 597–614. [[CrossRef](#)]
21. Van der Veeren, R. Different Cost-Benefit Analyses in The Netherlands for the European Water Framework Directive. *Water Policy* **2010**, *12*, 746–760. [[CrossRef](#)]
22. Dehnhardt, A. Decision-Makers' Attitudes towards Economic Valuation—A Case Study of German Water Management Authorities. *J. Environ. Econ. Policy* **2013**, *2*, 201–221. [[CrossRef](#)]
23. Gómez-Limón, J.A.; Martín-Ortega, J. The Economic Analysis in the Implementation of the Water-Framework Directive in Spain. *Int. J. River Basin Manag.* **2013**, *11*, 301–310. [[CrossRef](#)]
24. Feuillet, S.; Levrel, H.; Boeuf, B.; Blanquart, S.; Gorin, O.; Monaco, G.; Penisson, B.; Robichon, S. The Use of Cost-Benefit Analysis in Environmental Policies: Some Issues Raised by the Water Framework Directive Implementation in France. *Environ. Sci. Policy* **2016**, *57*, 79–85. [[CrossRef](#)]
25. Görlach, B.; Pielen, B. Disproportionate Costs in the EC Water Framework Directive—The Concept and Its Practical Implementation. In Proceedings of the Envecon Applied Environmental Economics Conference, London, UK, 23 March 2007; p. 1.
26. Martín-Ortega, J.; Skuras, D.; Perni, A.; Holen, S.; Psaltopoulos, D. The disproportionality principle in the WFD: How to actually apply it? In *Economics of Water Management in Agriculture*; Bournaris, T., Berbel, J., Eds.; CRC Press: Boca Raton, FL, USA, 2014; pp. 214–249.
27. Klauer, B.; Sigel, K.; Schiller, J. Disproportionate Costs in the EU Water Framework Directive—How to Justify Less Stringent Environmental Objectives. *Environ. Sci. Policy* **2016**, *59*, 10–17. [[CrossRef](#)]
28. Burns, C.; Carter, N. Is Co-Decision Good for the Environment? An Analysis of the European Parliament's Green Credentials. *Political Stud.* **2010**, *58*, 123–142. [[CrossRef](#)]
29. European Parliament; Council of the European Union. *Article 4.1 a(ii). 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*; Official Journal of the European Communities: Brussels, Belgium, 22 December 2000; p. 9.
30. Howarth, W. Aspirations and Realities under the Water Framework Directive: Proceduralisation, Participation and Practicalities. *J. Environ. Law* **2009**, *21*, 391–417. [[CrossRef](#)]
31. Van Kempen, J.J.H. Countering the Obscurity of Obligations in European Environmental Law: An Analysis of Article 4 of the European Water Framework Directive. *J. Environ. Law* **2012**, *24*, 499–533. [[CrossRef](#)]
32. Council of the European Union. *Common Position (EC) No. 41/1999 Adopted by the Council on 22 October 1999 with a View to the Adoption of a Directive 1999/.../EC of the European Parliament and of the Council Establishing a Framework for Community Action in the Field of Water Policy (1999/C 343/01)*; Council of the European Union: Brussels, Belgium, 1999.
33. European Parliament. *Recommendation for Second Reading on the Common Position Adopted by the Council with a View to the Adoption of a European Parliament and Council Directive on Establishing a Framework for Community Action in the Field of Water Policy (9085/3/1999 C5-0209/1999 1997/0067(COD))*; European Parliament: Brussels, Belgium, 2000.
34. De Abreu, B. *La Négociation de la Directive-Cadre Sur l'eau. Place et Rôle Des Références Économiques Dans le Processus*, Mémoire de DEA, Université de Paris-X-Nanterre, Nanterre, France, Unpublished Work, 2001.
35. Andersen, M.S.; Liefferink, D. *European Environmental Policy: The Pioneers*; Manchester University Press: Manchester, UK, 1997.
36. European Commission. *Proposal for a Council Directive Establishing a Framework for Community Action in the Field of Water Policy*; European Commission: Brussels, Belgium, 1997.
37. European Commission. *Proposal for a Council Directive Establishing a Framework for Community Action in the Field of Water Policy*; European Commission: Brussels, Belgium, 1997; p. 19.
38. Ackerman, F.; Heinzerling, L. Pricing the Priceless: Cost-Benefit Analysis of Environmental Protection. *Univ. Pa. Law Rev.* **2002**, *150*, 1553–1584. [[CrossRef](#)]

39. Fritsch, O.; Radaelli, C.; Schrefler, L.; Renda, A. Comparing the Content of Regulatory Impact Assessments in the UK and the EU. *Public Money Manag.* **2013**, *33*, 445–452. [[CrossRef](#)]
40. Council of the European Union. *Common Position (EC) No. 41/1999 Adopted by the Council on 22 October 1999 with a View to the Adoption of a Directive 1999/.../EC of the European Parliament and of the Council Establishing a Framework for Community Action in the Field of Water Policy (1999/C 343/01)*; Council of the European Union: Brussels, Belgium, 1999; p. 8.
41. European Parliament. *Transcript of the Debates in Second Reading*; European Parliament: Brussels, Belgium, 2000.
42. Council of the European Union. *Amended Proposal for Council Directive Establishing a Framework for Community Action in the Field of Water Policy*; Council of the European Union: Brussels, Belgium, 1999; Annex B, p. 1.
43. Council of the European Union. *Amended Proposal for Council Directive Establishing a Framework for Community Action in the Field of Water Policy*; Council of the European Union: Brussels, Belgium, 1999; Annex A, p. 8.
44. Collier, U. Sustainability, Subsidiarity and Deregulation: New Directions in EU Environmental Policy. *Environ. Politics* **1997**, *6*, 1–23. [[CrossRef](#)]
45. Economic and Social Committee. *Opinion of the Economic and Social Committee on the 'Proposal for a Council Directive Establishing a Framework for Community Action in the Field of Water Policy' Official Journal of the European Communities*; Economic and Social Committee: Brussels, Belgium, 1997; p. 85.
46. European Commission. *Common Implementation Strategy For The Water Framework Directive (2000/60/EC)*; Strategic Document as Agreed by The Water Directors Under Swedish Presidency; European Commission: Brussels, Belgium, 2001.
47. European Commission. *Common Implementation Strategy for the Water Framework Directive (2000/60/EC)*; Guidance Document No. 1, Economics and the Environment, The Implementation Challenge of the Water Framework Directive; Office for Official Publications of the European Communities: Luxembourg, 2003.
48. Water Directors of the European Union. Final Synthesis. In Proceedings of the Informal Meeting of Water Directors of the European Union, Candidate and EFTA Countries, Salzburg, Austria, 1–2 June 2006.
49. Water Directors of the European Union. Final Synthesis. In Proceedings of the Informal Meeting of Water Directors of the European Union, Candidate and EFTA Countries, Dresden, Germany, 18–19 June 2007.
50. European Commission. *Common Implementation Strategy for the Water Framework Directive (2000/60/EC)*; Guidance Document No. 20, Guidance Document on Exemptions to the Environmental Objectives; Office for Official Publications of the European Communities: Luxembourg, 2009.
51. European Commission. Conclusions on Exemptions and Disproportionate Costs. In *Common Implementation Strategy for the Water Framework Directive (2000/60/EC)*, Proceedings of the Water Directors' Meeting under Slovenian Presidency, Brdo, Slovenia, 16–17 June 2008.
52. Water Directors of the European Union. *Annex IV: Towards a Common Understanding on Disproportionate Costs*; Conclusions of Discussions under Agenda Item 2.3 in Relation to Disproportionality; Water Directors: Lisbon, Portugal, 2007.
53. Water Directors of the European Union. *Annex IV: Towards a Common Understanding on Disproportionate Costs*; Conclusions of Discussions under Agenda Item 2.3 in Relation to Disproportionality; Water Directors: Lisbon, Portugal, 2007; p. 1.
54. European Commission. *Common Implementation Strategy for the Water Framework Directive (2000/60/EC)*; Guidance Document No. 1, Economics and the Environment, The Implementation Challenge of the Water Framework Directive; Office for Official Publications of the European Communities: Luxembourg, 2003; p. 193.
55. Bräuer, I.; Dworak, T. Input Paper, Version 3. In Proceedings of the Workshop on Disproportional Costs and Exemptions to the Environmental Objectives under the Water Framework Directive, Copenhagen, Denmark, 10/11 April 2008; Article 4.4–4.6. Available online: <https://circabc.europa.eu> (accessed on 5 September 2016).
56. European Commission. *Common Implementation Strategy, Work Programme 2013–2015, 'Strengthening the Implementation of EU Water Policy through the Second River Basin Management Plans'*; European Commission: Brussels, Belgium, 2014.
57. European Commission. Synthesis of the WG Economics Meeting. In Proceedings of the First Meeting, Brussels, Belgium, 20–21 March 2014.
58. Dunlop, C.; Radaelli, C. *Handbook of Regulatory Impact Assessment*; Edward Elgar: Cheltenham, UK, 2016.

59. Organisation for Economic Co-Operation and Development. *Managing Water for All: An OECD Perspective on Pricing and Financing*; OECD: Paris, France, 2009.
60. European Parliament; Council of the European Union. *Article 9. 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*; Official Journal of the European Communities: Brussels, Belgium, 22 December 2000; pp. 12–13.
61. Görlach, B.; Pielen, B. Disproportionate Costs in the EC Water Framework Directive—The Concept and Its Practical Implementation. In Proceedings of the Envecon Applied Environmental Economics Conference, London, UK, 23 March 2007; p. 5.
62. Kanakoudis, T. Socially Fair Domestic Water Pricing: Who Is Going to Pay for the Non-Revenue Water? *Desalination Water Treat.* **2016**, *57*, 11599–11609. [[CrossRef](#)]
63. Pearce, D.; Atkinson, G.; Mourato, S. *Cost-Benefit Analysis and the Environment: Recent Developments*; Organisation for Economic Co-Operation and Development: Paris, France, 2006.
64. European Commission. *Common Implementation Strategy*; Environmental Objectives under the Water Framework Directive, Policy Summary and Background Document; European Commission: Brussels, Belgium, 2005.
65. European Commission. *Accompanying Document to the Communication from the Commission to the European Parliament and the Council 'Towards Sustainable Water Management in the European Union'*; First Stage in the Implementation of the Water Framework Directive 2000/60/EC, Commission Staff Working Document, SEC(2007) 362; European Commission: Brussels, Belgium, 2007.
66. European Commission. *Common Implementation Strategy for the Water Framework Directive (2000/60/EC)*; Carrying forward the Common Implementation Strategy for the Water Framework Directive, Progress and Work Programme for 2003 and 2004; Office for Official Publications of the European Communities: Luxembourg, 2003.
67. World Wildlife Fund; European Environmental Bureau. *'Tips and Tricks' for Water Framework Directive Implementation: A Resource Document for Environmental NGOs on the EU Guidance for the Implementation of the Water Framework Directive*; European Environmental Bureau: Brussels, Belgium, 2004.
68. European Commission. Active involvement in river basin management, Plunge into the Debate. In Proceedings of the 2nd European Water Conference, Brussels, Belgium, 2–3 April 2009; p. 33.
69. Brouwer, R.; Barton, D.; Bateman, I.; Brander, L.; Georgiou, S.; Martín-Ortega, J.; Navrud, S.; Pulido-Velazquez, M.; Schaafsma, M.; Wagtendonk, A. *Economic Valuation of Environmental and Resource Costs and Benefits in the Water Framework Directive: Technical Guidelines for Practitioners*; University of Amsterdam: Amsterdam, The Netherlands, 2009.
70. Water Directors. Summary note of the discussion of the blueprint. In Proceedings of the Extraordinary Informal Meeting of EU Water Directors, Brussels, Belgium, 29 March 2012.
71. European Commission. *Common Implementation Strategy*; Report on Project to Gather SCG Members' Views of the Experience in the Implementation of the Economic Aspects of the WFD, Questionnaire and Interview Results; European Commission: Brussels, Belgium, 2010.
72. Martín-Ortega, J. Economic Prescriptions and Policy Applications in the Implementation of the European Water Framework Directive. *Environ. Sci. Policy* **2012**, *24*, 83–91. [[CrossRef](#)]
73. Görlach, B.; Pielen, B. Disproportionate Costs in the EC Water Framework Directive—The Concept and Its Practical Implementation. In Proceedings of the Envecon Applied Environmental Economics Conference, London, UK, 23 March 2007.
74. Mattheiß, V.; De Paoli, G.; Strosser, P. *Comparative Study of Pressures and Measures in the Major River Basin Management Plans in the EU*; Task 4b—Costs and Benefits of WFD Implementation. 2012. Available online: http://ec.europa.eu/environment/archives/water/implrep2007/pdf/EU%20pressures%20and%20measures_Task_4b_Final%20report.pdf (accessed on 5 September 2016).

