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Improving Legal Certainty and Adaptability in the Programmatic Approach

Lorenzo Squintani* and Helena van Rijswick**

ABSTRACT

The effectiveness of the programmatic approach in (EU) environmental law is at times problematic. Our analysis of the manner in which this approach is regulated under the Air Quality Directive, the National Emission Ceilings Directive, the Nitrates Directive and the Water Framework Directive reveals room for improving adaptability and legal certainty. In light of the positive effects that a programmatic approach can have on, among other things, a high level of environmental protection, we formulate a set of recommendations to increase clarity and adaptability. This is the first study of this kind concerning this approach. Further research is needed in order to fully develop the potentials of the programmatic approach. In the absence of such data, the EU and national legislators should refrain from blindly prescribing this approach in other environmental areas.

KEYWORDS: programmatic approach, air quality, water quality, legal certainty, adaptability

1. INTRODUCTION

This article aims at assessing how a programmatic approach can be regulated so as to maximise adaptability and legal certainty.[1] Two judgments of the Court of Justice of the European Union (CJEU) rendered in 2015 underlined the need for such research.[2] The starting point for understanding a programmatic approach is the fact that under European Union (EU) environmental legislation there has been a long history of requiring Member States to draw up plans and programmes for the

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1 When both values cannot be maximised, the maximisation of one of these two values should be paired with a minimisation of the losses of the other value.

2 Case C-404/13 *ClientEarth* [2014] ECLI:EU:C:2014:2382 (*ClientEarth*) and Case C-461/13 *Bund für Umwelt und Naturschutz Deutschland* [2015] ECLI:EU:C:2015:433 (*Weser*).

achievement of EU environmental goals.[3] First, plan and programmes can be required in order to obtain information about Member States' compliance with EU environmental goals.[4] Secondly, plans and programmes can be prescribed as a tool to achieve EU environmental goals, by inducing Member States to set up groundwork for an environmental policy. Thirdly, in some cases, plan and programmes is the *only* tool prescribed to achieve these goals. These latter two categories are what we describe as a programmatic approach and is the focus of this article.[5]

The programmatic approach allows room for flexibility, which can be used to foster innovative, sustainable development, facilitate the adoption of preventive measures and a fair allocation of room for economic development and related environmental costs, including in those cases in which quality standards are not yet met.[6] Moreover, flexibility can be used to cope with socio-economic and environmental development, and development in the state of knowledge. This latter aspect is referred to as adaptability or adaptiveness.[7] These positive features have a downside. Indeed, flexibility can affect legal certainty and, consequently, enforceability and judicial protection.[8] Besides, flexibility can also affect adaptability if it fails to guarantee that all relevant data which is necessary to predict developments are available during the making and/or implementation of a programme.[9] It is indeed easier to adapt a programme if it is known in advance what the possible developments are. Predictability also provides that a minimum level of legal certainty is guaranteed in those cases in which adaptability affects legal certainty.[10]

Despite the prescription of plans and programmes under EU environmental legislation, and the desire of certain Member States to make the programmatic approach the central policy instrument in environmental legislation,[11] research on the effectiveness of the programmatic approach is scarce.[12] In particular, there has

3 Ludwig Krämer, 'The European Communities and Environmental Policy: The System of Legislation' in Piet Gilhuis and others (eds), *Milieu als wetgevingsvraagstuk* (WEJ Tjeenk Willink 1991) 79–88; Helena van Rijswick (ed), *EG-recht en de praktijk van het waterbeheer* (STOWA 2008).

4 Frank Groothuijse and Rosa Uylenburg, 'Everything According to Plan? Achieving Environmental Quality Standards by a Programmatic Approach' in Marjan Peeters and Rosa Uylenburg (eds), *EU Environmental Legislation: Legal Perspectives on Regulatory Strategies* (Edward Elgar 2014) 117–19.

5 ibid.

6 cf Chris Backes and Helena van Rijswick, 'Effective Environmental Protection: Towards a Better Understanding of Environmental Quality Standards in Environmental Legislation' in Lena Gipperth and Charlotta Zetterberg (eds), *Miljörättsliga perspektiv och tankevändor, Vänbok till Jan Darpö & Gabriel Michanek* (Iustus Förlag AB 2013) 19.

7 Carl Folke and others, 'Adaptive Governance of Social-Ecological Systems' (2005) 30 Annu Rev Environ Resour 441.

8 Olivia Green and others, 'EU Water Governance: Striking the Right Balance between Regulatory Flexibility and Enforcement?' (2013) 18 Ecol Soc 10; Groothuijse and Uylenburg (n 4) 116–45.

9 Folke and others (n 7); Tom Raadgever and others, 'Assessing Management Regimes in Transboundary River Basins: Do They Support Adaptive Management?' (2008) 13 Ecol Soc 14.

10 Adaptability increases legal certainty when developments help to clarify rights and obligations for all parties.

11 For example, The Dutch Environmental and Planning Act (*Omgevingswet*), PB 2016, 156.

12 Initial research can be seen in Groothuijse and Uylenburg (n 4) 116–45 and Backes and van Rijswick (n 6). In the field of infrastructure planning, see Tim Busscher, 'Towards a Programme-oriented Planning Approach – Linking Strategies and Projects for Adaptive Infrastructure Planning' (PhD thesis, University of Groningen 2014).

been little attention given to the thin but fundamental difference between a programmatic approach as *one* of more policy instruments, or as the *only* policy instrument of an EU act.[13] In both cases, individuals may require a competent authority to adopt a plan or programme, although they cannot shape its content.[14] Yet, in case a programmatic approach is just one of the instruments of a directive, the adoption of such a plan or programme does not *delink* the connection between the environmental quality standards of the EU act at stake and the (tacit) authorisation of a specific project affecting such standards.[15] We refer to this kind of programmatic approach as a programmatic approach *without* a delinking effect. This means that individuals can still challenge in court the validity of a specific project in light of the underlying environmental goals of the directive at stake. Differently, when a programmatic approach is the only policy instrument prescribed by a directive, individuals cannot challenge the validity of, for example, a permit granted on the basis of a plan or programme in light of the underlying environmental goals of the directive at stake.[16] This is because the programme has broken the linkage between environmental goals and specific projects. Hence, we speak in this case of a programmatic approach *with* a delinking effect. In this case, what matters is that pollution is reduced once all the measures in the programme have been adopted. Accordingly, individual projects worsening the environmental medium at stake do not need to be prohibited, as long as a plan or programme as a whole ensures compliance (the so-called net-loss approach).[17] Clearly, under the programmatic approach with a delinking effect, competent authorities enjoy more freedom on how to achieve EU environmental goals. By using a net-loss approach, desired room for economic activities can indeed be created. Conversely, individuals enjoy limited judicial protection.[18]

In order to establish the room for improving legal certainty and adaptability under the programmatic approach, a comparative research method is used. More precisely, the manner in which the programmatic approach has been employed in the fields of ambient air quality, most notably under the Air Quality Directive (AQD) and the National Emission Ceilings (NEC) Directive (Section 2),[19] and water management, most notably under the Water Framework Directive (WFD) and the Nitrates

13 cf Dutch literature, eg Kars de Graaf and others, 'Omgevingswet: fundamentele keuzes in het wetgevingstraject uitgelicht' (2015) 50 M&R 604; Jan van Angeren, 'Het omgevingsplan in de Omgevingswet' (2016) 16 TO 4; Marlous Brans, 'Over(heid) tot actie: programma's in de Omgevingswet' (2014) 7 TBR 941.

14 Case C-237/07 *Janecek* [2008] ECR I-06221 (*Janecek*).

15 *Weser* (n 2).

16 Joined Cases C-165 and 167/09 *Stichting Natuur en Milieu and Others v College van Gedeputeerde Staten van Groningen* (C-165/09) *and College van Gedeputeerde Staten van Zuid-Holland* (C-166/09 and C-167/09) [2011] ECLI:EU:C:2011:348 (*RWE*) [75].

17 Also called 'per balance' approach, Marlon Boeve and Berthy van den Broek, 'The Programmatic Approach; a Flexible and Complex Tool to Achieve Environmental Quality Standards' (2012) 8 Utrecht L Rev 74, 78.

18 Groothuijse and Uylenburg (n 4) 116–45, in particular, s 5.

19 European Parliament and Council Directive 2008/50/EC of 21 May 2008 on ambient air quality and cleaner air for Europe [2008] OJ L152/1 and European Parliament and Council Directive 2001/81/EC of 23 October 2001 on national emission ceilings for certain atmospheric pollutants [2001] OJ L309/22.

Directive (Section 3),[20] will be looked at from the perspective of legal certainty, and adaptability. We describe legal certainty as clarity concerning rights and obligations. Adaptability is defined as the ability of a system to adjust to changing circumstances, to moderate potential damage, to take advantage of opportunities, or to cope with unforeseen consequences.[21] As further discussed below, the NEC Directive and the Nitrates Directive represent cases of a programmatic approach with a delinking effect whereas the AQD and the WFD represent cases of a programmatic approach without a delinking effect.[22] By using a hermeneutic approach to the law, a literature review and a case law analysis, Sections 2 and 3 will describe the manner in which the programmatic approach has been shaped in these two fields of EU environmental law, and highlight those cases in which the programmatic approach, or a particular aspect thereof, does not maximise legal certainty and/or adaptability.

In order to streamline our analysis, the provisions of the selected directives on the programmatic approach have been grouped into three categories. First, we look at the provisions concerning the *actors* involved in the decision-making process, including whether the 'public'[23] has the opportunity to shape the content of programmes, either during the decision-making phase or by means or judicial review. Secondly, we turn our attention to the provisions about the *content* of programmes. In this context, we focus on the presence of guidelines or obligations about the measures which are appropriate to achieve the material goals, the relationship between the instruments as part of the content of programmes and the material goals, and the regulation of the time limits to achieve the material goals or to redress exceedances. Thirdly and finally, we focus on the provisions concerning the *assessment* of the results of programmes, by looking at the assessment of the material status of the environmental medium covered by the selected directives, and at the methodology used to establish the causal link between the content of programmes and the achievement of the material goals.

Following the analysis carried out in Sections 2 and 3, this article will formulate an initial set of recommendations for the EU legislature on the manner in which the programmatic approach should be regulated in EU environmental directives (Section 4).[24] Moreover, this contribution stimulates follow-up studies focusing on

20 Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources [1991] OJ L375/1.

21 For a definition of adaptability, see Rashid Hassan, Robert Scholes and Neville Ash, *Ecosystems and Human Well-Being: Current States and Trends* (Island Press 2005) vol 1, app D.

22 This approach plays a central role also under European Parliament and Council Directive 2002/49/EC of 25 June 2002 relating to the assessment and management of environmental noise [2002] OJ L189/12, but its regulation is similar to that seen under the NEC and Nitrates Directive. To avoid unnecessary duplication of analysis, we will not focus on noise law. The manner in which the programmatic approach is regulated under the WFD and the Nitrates Directive is representative of the protection of the fresh water component of this environmental sector.

23 ie defined as one or more natural or legal persons and, in accordance with national legislation or practice, their associations, organizations or groups. See art 2 of the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, 161 UNTS 447, 25 July 1998 (Aarhus Convention).

24 These recommendations are relevant also for the national executive and legislative powers in those cases in which EU legislation fails to comply with our recommendations. Arguably, this will constitute gold-plating. On this concept, Lorenzo Squintani, *Gold-Plating of European Environmental Law* (PhD thesis,

the effectiveness of the programmatic approach beyond the aspect of legal certainty and adaptability.

2. THE PROGRAMMATIC APPROACH AND AIR QUALITY LAW

In 1996, the Air Framework Directive (AFD) established the basis on which assessment methods and limit values had to be established.[25] More importantly from the perspective of this article, Article 8 established that Member States had to make a plan or programme in areas with poor air quality, before the entry into force of the limit values specified in the daughter directives.[26] After the entry into force of a given limit value, Article 7(3) required Member States to draw up an action plan indicating the measures to be taken 'in a short time' where there is a risk of a quality standard being exceeded, in order to prevent exceedances or to limit their duration.[27]

In 2001, the NEC Directive broadened the application of the programmatic approach in the field of air quality law. This Directive was adopted with the aim of contrasting acidification, eutrophication and ground-level ozone in the EU, in light of Gothenburg Protocol No 1 to the Convention on Long-Range Transboundary Air Pollution signed in 1999.[28] In order to achieve this objective, the Directive prescribes that the so-called national emission ceilings, which are a kind of emission limit value, should be respected. Each Member State has to keep its emission of sulphur dioxide, nitrogen oxides, volatile organic compounds (VOCs) and ammonia below the levels established under the Directive. These emission limit values aim at broadly meeting three environmental quality standards set out under Article 5 of the Directive. Member States have to achieve the emission limit values by means of national programmes. Under this Directive, the programmatic approach is the only means prescribed to achieve the goals set out by the Union legislator.[29] This approach has a delinking effect, as discussed under Section 2.2. Programmes had to be established by 2002 and updated by 2006. The goals had to be achieved by 2010 and not exceeded any year thereafter.

In 2008, the AQD further broadened the use of the programmatic approach in this environmental field. This Directive, which was adopted with the aim of replacing the AFD and its first three daughter directives by 2010, requires a plan to be adopted in all cases where a limit value is exceeded (Article 23). Notwithstanding its relevance, the programmatic approach is not the only policy instrument prescribed to

University of Groningen 2013); Helle Anker and others, 'Coping with EU Environmental Legislation: Transposition Principles and Practices' (2015) 27 JEL 17; Jan Jans and others, '"Gold Plating" of European Environmental Measures?' (2009) 8 JEEPL 417, 418.

25 Council Directive 96/62/EC of 27 September 1996 on ambient air quality assessment and management [1996] OJ L296/55.

26 Most notably, Council Directive 1999/30/EC of 22 April 1999 relating to limit values for sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter and lead in ambient air [1999] OJ L163/41; and European Parliament and Council Directive 2000/69/EC of 16 November 2000 relating to limit values for benzene and carbon monoxide in ambient air [2000] OJ L313/12.

27 As discussed in the literature, only some Member States linked the limit values to specific decisions, Chris Backes, Tom van Nieuwerburgh and Robert Koelemeijer, 'Transformation of the First Daughter Directive on Air Quality in Several EU Member States and its Application in Practice' (2005) 14 EEELR 157.

28 UNTS 81, vol 2319.

29 The ECJ referred to a 'purely programmatic approach', *RWE* (n 16) [75].

achieve the Directive's goals and, hence, it does not have a delinking effect, as discussed under Section 2.2. Indeed, besides the programmatic approach prescribed under Article 23, Member States must ensure that in zones and agglomerations where pollution is lower than the limit values, the levels of the pollutants covered by the Directive shall remain below the limit values and shall endeavour to preserve the best ambient air quality, compatible with sustainable development (Article 12).

In this section, we will establish the room for improving legal certainty and adaptability as regards the provisions of the NEC Directive and the AQD concerning the actors involved in the decision-making process and their access to justice and public participation (Section 2.1), the content of programmes (Section 2.2) and the monitoring of the results and effectiveness of programmes (Section 2.3). Section 4 will provide a summary of the main findings of the analysis performed, and will compare them with those concerning the Nitrates Directive and the WFD.

2.1 The Actors Involved in the Decision-making Process and Their Access to Justice and Public Participation

The provisions of the NEC Directive and of the AQD concerning the actors involved in the decision-making process and their access to justice and public participation show room for improving both legal certainty and adaptability.

As regards the actors involved in the decision-making process, Articles 23 and 24 of the AQD and Article 4 of the NEC Directive address the Member States' obligation to adopt a programme, without further specification. Hence, both Directives allow Member States to select the authorities that, in their opinion, are best placed to make the programme. Given the focus on the *national* dimension of air pollution under the NEC Directive, it can be concluded that the main actor for the implementation of the national programme is the central government. In contrast, under the AQD, the material goals must be achieved in specific areas, within an *agglomeration* or *zone*.[30] In practice, the various *territorial* authorities at the national, regional and municipal level are usually responsible for the fulfilment of the limit and target values and therefore for drawing up air quality and short-term action plans in case of exceedances.[31]

Another difference between the two Directives concerns transboundary pollution. This is regulated only under the AQD, given that the achievement of limit values is influenced by transboundary pollution. Under Article 25 of the AQD, the Member State in which the limit values are exceeded and the Member State from which the pollution originated must jointly cooperate and, if appropriate, establish an air quality plan or a short-term action plan. Under this requirement, it is unclear which Member State will be held accountable if there is a breach of this obligation. Moreover, the appropriateness criterion referred to in Article 25 of the Directive makes it difficult to establish whether the Directive has been breached or not. The above, as well as the fact that the Commission declared that: 'The Commission does

30 Implicitly confirmed by Point 3 of s B of Annex XV to the AQD.

31 See the plans and reports available on the EIONET <http://cdr.eionet.europa.eu/> accessed 18 July 2016 and CIRCAB databases (partially available through Commission's website <http://ec.europa.eu/environment/air/quality/legislation/time_extensions.htm> accessed 18 July 2016).

not keep a list of MS that are concerned by article 25 of the Air Quality Directive',[32] suggests room for improving legal certainty under Article 25.

As regards public participation, Article 26 of the AQD and Article 6(4) of the NEC Directive require the Member States to provide the public with information on their programmes.[33] Conversely, the Directives do not envisage public participation. Directive 2003/35/EC[34] on public participation in drawing up certain plans and programmes does not mention the AQD and the NEC Directive either. It mentions only the AFD. While it is the case that in light of the Aarhus Convention, Directive 2003/35/EC should be read as including the AQD,[35] a more explicit linkage would improve legal certainty. More generally, Directive 2003/35/EC requires public participation only after the publication of a *proposal* for a plan.[36] Given the extensive preparatory works undertaken by civil servants in writing such draft decisions, it can be doubted that all options are still open when the public is finally participating.[37] Legal certainty about this issue can, therefore, be improved.

In our opinion, this shortcoming cannot be redressed by means of judicial review. The Directives are silent on this issue, but the CJEU has stated that directly affected members of the public should be able to challenge the relevant programme.[38] This could take place either directly or when challenging a decision based on the programme, ie indirectly. Yet, under Article 9(3), or eventually 9(2), of the Aarhus Convention, programmes as such must be open to judicial review.[39] In this section, we limit ourselves to direct actions. Indirect actions are dealt with in the section concerning the content of programmes. As regards direct actions, it seems that the presence or lack of specific measures cannot be challenged. This matter, however, has not been finally settled.[40] The impossibility of challenging the (lack of) specific measures, if confirmed, can discourage legal actions from being undertaken altogether, or, in any case, it can discourage specific arguments from being presented.

The underdevelopment of both the legal regime for public participation and the regime on direct actions can weaken the effectiveness of public participation

32 Commission's email to the authors of this contribution dated 25 June 2015.

33 Under art 25 of the AQD, this obligation includes the public living in neighbouring zones in other Member States.

34 European Parliament and Council Directive 2003/35/EC of 26 May 2003 providing for public participation in respect of the drawing up of certain plans and programmes relating to the environment and amending with regard to public participation and access to justice Council Directives 85/337/EEC and 96/61/EC [2003] OJ L156/17.

35 Similarly, Alan Andrew, *The Clean Air Handbook - A Practical Guide to EU Air Quality* (ClientEarth 2014) 21.

36 art 2 of Directive 2003/35/EC (n 34).

37 Similarly, Ben Schueler, 'Wat doen we met de inspraak?' (2014) 49 M&R 239.

38 *RWE* (n 16) [100].

39 art 9(2) of the Convention applies to decisions subject to art 6 of the Convention, concerning specific decisions. Yet, the Aarhus Compliance Committee case *Armenia* ACCC/C/2004/8; ECE/MP.PP/C.1/2006/2/Add.1, 10 May 2006, [23] and [28–38] shows that there are cases in which art 9(2) Aarhus Convention can apply to plan programmes when they regulate a specific activity (eg watch-making factory). If art 9(2) does not apply, art 9(3) applies. cf Jerzy Jendrośka, 'Public Participation in Environmental Decision-Making' in Mark Pallemaerts (ed), *The Aarhus Convention at Ten*, (Europa Law Publishing 2011) 96.

40 *Janecek* (n 14), *ClientEarth* (n 2), and *RWE* (n 16).

procedures, leading to a lacunose data gathering phase during the decision-making process. Hence, adaptability can be improved as well.

2.2 The Content of Programmes

The main idea behind the insertion of a programmatic approach in the NEC Directive and the AQD is flexibility about the measures to deploy to achieve the material goals of the Directives. Flexibility can spur adaptability, but it can affect legal certainty. Flexibility can also affect adaptability if it deprives the decision makers of the information that is necessary to adapt the programme in order to achieve the environmental goals aimed at. The EU legislator seems aware that flexibility should not be unlimited. Indeed, the NEC Directive and the AQD limit Member States' discretion by means of requirements to include specific measures in a programme (analysed in Section 2.2.1.), time limits to redress exceedances (analysed in section 2.2.2.) and the relationship between programmes and material goals (analysed in Section 2.2.3.). Despite these limitations, in this section we establish that there is still room for improving legal certainty and adaptability.

2.2.1 Requirements to Include Specific Measures in a Programme

For the pollutants covered by the AQD, Part B of Annex XV to the Directive enlists eight categories of measures which are usually adopted to improve air quality, such as the reduction of emissions from vehicles through retrofitting with emission control equipment, and the use of permit systems under the nowadays Industrial Emissions Directive (IED).[41] Moreover, Part A of Annex XV to the AQD indicates the information that air quality plans shall include. Finally, under Article 24(4) of the AQD, best practices concerning short-term action plans should be published by the Commission.[42] The measures described under the above-mentioned provisions can be used by Member States and the public to establish what constitutes an 'appropriate measure' within an air quality plan. Yet, due to their indicative nature, they can hardly be used to compel the insertion of a specific measure in a programme. The AQD regime allows adaptability to be maximised. Yet, it can be questioned whether losses in legal certainty have been minimised.

This can be different in those cases in which EU law prescribes the adoption of specific measures under some of the categories mentioned in Part B of Annex XV to the Directive.[43] In these cases, Member States' discretion is limited. Some of these specific mandatory measures are also relevant for achieving the limit values for sulphur dioxide and nitrogen oxides under the NEC Directive. For the other two pollutants covered by this directive, ie VOCs and ammonia, Member States' freedom is

41 European Parliament and Council Directive 2010/75/EU of 24 November 2010 on industrial emissions [2010] OJ L334/17.

42 Beth Conlan, John Abbot and Lorenz Moosmann, *Best Practices for Short Term Action Plans* (AEA Reference ED56654-Issue 2, January 2012), with an analysis of thirty-nine short-term action plans adopted in nine Member States over the period 2002–2011. This report highlights ten criteria, grouped in three categories, to assess whether a short-term action plan is a 'good' plan.

43 For example, Regulation (EC) 443/2009 setting emission performance standards for new passenger cars as part of the Community's integrated approach to reduce CO_2 emissions from light-duty vehicles [2009] OJ L140/1.

partially limited by EU legislation in these fields. For example, VOCs are regulated under the IED and the Auto-Oil Programme.[44] Whether the above-mentioned measures maximise legal certainty and adaptability depends on the manner in which they have been drafted and applied. For example, Regulation (EC) No 443/2009 is based on the so-called integrated approach. Under this approach, car manufactures must comply with specific performance standards by means of a well-defined set of instruments. The Regulation allows adaption to these standards in light of technological developments, after following a specific procedure.[45]

2.2.2 Time Limits to Redress Exceedances

Member States' discretion concerning the content of programmes is further limited by the time limit for redressing exceedances. Indeed, time limits can influence the kind of measures that can be adopted in a plan to redress the exceedances, by precluding measures that are too slow in reducing the exceedances. Yet, both Directives do not prescribe a clear deadline for redressing exceedances. While Article 23 of the AQD uses the formula 'as short as possible', Article 24 states that short-term action plans shall 'reduce the duration' when exceedances cannot be prevented. The NEC Directive is completely silent on this aspect, suggesting that exceedances shall be reduced 'as soon as possible'. The case law of the ECJ provides little guidance about the meaning of both formulas in relation to Member States' discretion. In the *Janecek* case concerning 'reducing the duration' formula,[46] the *ClientEarth* case[47] concerning the 'as short as possible' formula used under the AQD, and in the *RWE* case concerning the NEC Directive, the CJEU has explicitly or implicitly stated that values other than environmental values, such as economic development, can be taken into consideration when establishing a programme to reduce exceedances.[48] This conclusion could be considered to favour adaptability at the cost of, in particular, enforceability and judicial protection. Especially the lack of guidance as regards *which* other values can be taken into consideration and *to what extent* this is possible makes it extremely difficult to review Member States' choices. Such shortcomings can be redressed only partially by the motivation requirements under the Directives.[49] These requirements focus on feasibility and implementation. In our opinion, they should be interpreted as meaning that Member States also have to explain why compliance should be achieved at a given date, rather than earlier or later. Judges can use this information to review whether Member States' choices jeopardise the possibility of achieving the goals of these two Directives. This would be a first step in improving legal certainty under both Directives.

44 For example, European Parliament and Council Directive 94/63/EC on the control of volatile organic compound (VOC) emissions resulting from the storage of petrol and its distribution from terminals to service stations [1994] OJ L365/24.

45 On legal certainty and adaptability under this regulation, Lorenzo Squintani, 'Chapter 5 - Regulation of Emissions From The Non ETS Sectors' in Edwin Woerdman, Martha Roggenkamp and Marijn Holwerda (eds), *Essential EU Climate Law* (Edward Elgar 2015) 113–21.

46 Given the similarity between the wording and context in which this formula was used in the AFD and the AQD, we are of the opinion that this finding still applies under the AQD.

47 *ClientEarth* (n 2).

48 *Janecek* (n 14) [47] and *RWE* (n 16) [75], [88] and [101].

49 art 24(3) and pt A of Annex XV to the AQD; and, implicitly, art 6(2) of the NEC Directive.

2.2.3 The Relationship Between Programmes and Material Goals

Finally, Member States' discretion about the content of programmes is limited by the duty to comply with the limit values under the Directives. The AQD and the NEC Directive offer some flexibility as regards this obligation in two different ways.

Under the AQD, the target values for $PM_{2,5}$ and ozone can be set aside by the Member States if their achievement requires the adoption of measures entailing disproportionate costs (Articles 15–17). The content of programmes thus influences the quality standards. This does not occur under the limit on values of sulphur dioxide, PM_{10}, lead, carbon monoxide, nitrogen dioxide and benzene under the AQD.[50] The flexibility clauses under the AQD only allow certain sources of pollution to be detracted when assessing air quality (Articles 20 and 21) or to postpone the entry into force of the limit values and hence of the obligation to adopt plans to redress exceedances (Article 22).[51]

Differently, under the NEC Directive, the content of a programme influences the binding force of material goals by limiting its applicability to individual decisions, and not the material goals as such. Indirect challenges based on material goals, which imply a scrutiny of the content of programmes, are hence precluded or limited in scope. Indeed, despite the fact that a programme of measures to reduce exceedances after 2010 does not release a Member State from its duty to comply with the Directive,[52] individuals cannot rely, from an EU law perspective, on Article 4 of the NEC Directive to challenge the validity of an individual decision as such.[53] National programmes under the NEC Directive have a delinking effect. This finding does not mean that enforceability and judicial protection are neglected under the NEC Directive. First, national courts have to review whether an individual decision does not in itself seriously compromise the attainment of the result prescribed by the NEC Directive.[54] Secondly, in our opinion Article 5 of the NEC Directive establishes environmental quality standards as defined in Article 2(6) of the IED. Hence, if the NEC do not suffice to achieve the quality standards set out under Article 5, the duty to set stricter standards under Article 18 of the IED would be triggered.[55] Indeed, it would be at odds with the duty of sincere cooperation under Article 4(3) TEU if the Member States were allowed to disregard these quality standards while the EU legislator has not yet tightened the NEC.

50 Similarly, Chris Backes, Andrea Keessen and Helena van Rijswick, *Effectgerichte normen in het omgevingsrecht – De betekenis van kwaliteteitseisen, instandhoudingsdoelstellingen en emissieplafonds voor de bescherming van milieu, water en natuur* (BJU 2012) 53, 131 and 132.

51 Saskia van Holten and Helena van Rijswick, 'The Consequences of a Governance Approach in European Environmental Directives for Flexibility, Effectiveness and Legitimacy' in Marjan Peeters and Rosa Uylenburg (eds), *EU Environmental Legislation: Legal Perspectives on Regulatory Strategies* (Edward Elgar 2014).

52 The Commission does not exclude the possibility of starting an infringement procedure against those states that had not remained below their national ceilings in 2010 and 2011, Commission's email to the authors of this contribution dated 22 May 2015. For a failure to adopt a national programme, see Case C-273/08 *European Commission v Grand Duchy of Luxembourg* [2008] ECR I-00194.

53 *RWE* (n 16) [92–104].

54 ibid 91.

55 cf Backes, Keessen and van Rijswick (n 50) 61.

As regards the AQD, the effects of the content of programmes on the binding force of the limit values is unclear. In our opinion, they do not have delinking effects. The *ClientEarth* case clarified that the drafting of an appropriate air quality plan does not redress the breach of a limit value under the AQD.[56] Arguably, this means that Member States still need to implement the necessary measures to achieve the limit values. As explained in the *Weser* case, such an implementation duty means that individual decisions can be directly reviewed in light of the material goal.[57] The *Weser* case concerns the WFD. Yet, the role of the programmatic approach in achieving a material goal under the AQD is similar to that under the WFD. In both cases, a programme of measures only has a supplementary nature. Indeed, both Directives prescribe the use of programmes of measures separately from the duty to meet the quality standards. There are thus two duties under the AQD. First, a duty to respect the limit values (in particular Articles 12 and 13 of the Directive) and, secondly, a duty to adopt a programme of measures to redress exceedances (Articles 23 and 24).[58] Accordingly, it is not unreasonable to argue that a conclusion similar to that reached in the *Weser* case applies under the AQD. This would mean that through legal actions against individual decisions which were granted on the basis of an air quality plan or a short-term action plan, national courts can assess whether or not the content of a programme is appropriate to meet the standards. The judgments in *Janecek* and *ClientEarth* do not stand in the way of such an argument, as they concerned actions brought against (the lack of) a programme as such, ie direct actions.[59] In light of the above, we question, the validity of the argument that under the AQD projects having a limited impact on ambient air quality do not need to be taken into consideration by the programme.[60] The same doubts exist as regards the net-loss argument made by some.[61]

While, from the perspective of judicial protection of environmental values, the use of a programmatic approach without delinking effect seems to be a good outcome, in the sense that Member States are now under greater pressure to comply with environmental standards, it should be noted that indirect actions take place only *after* a programme has been implemented by means of an individual decision. Rights guaranteed under the programme, and thus legal certainty, are jeopardised by such a possibility. Therefore, also in light of the discussion in Section 2.1, direct actions against a plan have our preference.

56 *ClientEarth* (n 2) [36–49].

57 *Weser* (n 2), especially [32].

58 To a different extent see art 22 of the Directive.

59 *Janecek* (n 14); *ClientEarth* (n 2) [16].

60 This is the case if the programme shows that the limit values will be achieved, regardless of the impact that minor projects might have. In the Netherlands and Germany this reasoning is operationalized as meaning that projects worsening ambient air quality by less than 3% do not need to be taken into account. For the Netherlands, see Stb. 2007, 440 and Stcrt. 2007, 218. Germany served as an example to this extent, TK 2005/06, 30489, 3, 29.

61 For a discussion on this point, see Boeve and van den Broek (n 17) 78 and Backes, Keessen and van Rijswick (n 50) 131 and 132.

2.3 Monitoring the Results and Effectiveness of Programmes

Finally, legal certainty and adaptability can be improved also as regards the manner in which the NEC Directive and the AQD regulate the monitoring of the results and effectiveness of programmes.

As regards the assessment of air quality, the AQD and the NEC Directive have adopted different instruments. The AQD requires Member States to indicate the technique(s) used for the assessment of ambient air quality in their plans.[62] The Directive imposes clear requirements to this extent. In zones where limit values have been exceeded, measurements shall be performed by means of sampling stations,[63] in accordance with the methodology described in the Directive.[64] Yet, Member States are allowed to use other methods if they can demonstrate that these methods provide results which are equivalent to those mentioned under the Directive.[65] Such a possibility does not, in our opinion, affect clarity under the AQD. Equivalence can indeed be reviewed objectively. Rather than sampling, the NEC Directive requires modelling and estimations (Article 7). As specified in Annex III to the Directive, Member States have to prepare their national inventories and projections using the methodologies agreed upon by the Convention on Long-range Transboundary Air Pollution[66] and are required to use the join EMEP/CORINAIR guidebook.[67] In a nutshell, assessments under the Directive are based on statistical inventories. The reliance on international standards affects adaptability. This is due to the fact that the need to comply with international law is operationalised by the duty to follow the comitology procedure for updating the assessment methods (Article 7(4) of the Directive). This is a cumbersome procedure slowing down adaptability.

As regards the assessment of the effectiveness of the programmes under the NEC Directive, the findings presented above apply *mutatis mutandis*. Indeed, modelling and estimations are also relevant for the prediction and assessment of the effectiveness of national programmes to meet the national emissions ceilings under Article 4 of the NEC Directive (Article 6). Notwithstanding these shortcomings, the regulatory framework on the effectiveness of programmes under the NEC Directive is actually more advanced than that under the AQD. The latter Directive is indeed silent about the methodology to determine whether programmes are capable of achieving the results indicated therein. The AQD does require an indication of the details concerning the estimate of the planned improvement of air quality and of the expected

62 Annex XV, point 4(c) to the Directive.

63 art 6 of the Directive.

64 art XX, and Annexes I and III–X to the Directive. Especially s C of Annex I, on quality assurance for assessment data validation, Annex III on the siting of sampling points, and Annex VI on the reference methods for the assessment of the concentrations in ambient air. The methodology mentioned under the Directive is elaborated in external documents, such as the NEN-EN 14212:2005—Ambient air quality—Standard method for the measurement of the concentration of sulphur dioxide by ultraviolet fluorescence. cf Mark Wilde, 'The New Directive on Ambient Air Quality and Cleaner Air for Europe' (2010) 12 Env L Rev 287, fn 26.

65 Annex VI, s B, to the Directive, further elaborated under ss C and D to the same Annex.

66 UNTS 217, vol 1302.

67 European Environmental Agency, *EMEP/EEA Air Pollutant Emission Inventory Guidebook – 2013*, Technical Report No 12/2013 <http://www.eea.europa.eu//publications/emep-eea-guidebook-2013> accessed 24 August 2016.

time required to attain these objectives.[68] However, the methodology by which to make such an assessment is left to the Member States. Environmental Agency Austria and the AEA Technology plc's report from 2012 shows that Member States evaluate very differently whether the proposed measures are capable of achieving the results aimed at by short-term action plans.[69]

Accordingly, even if the monitoring of air quality under the AQD is continuous, the lack of rules concerning the establishment of a benchmark to evaluate the effects of programmes makes it arbitrary to establish whether less or more measures are necessary, and therefore whether the plan should be adapted. This also makes it more difficult to check compliance with the Directive. In conclusion, legal certainty and adaptability are poorly served by the lack of clear requirements on the assessment of the effectiveness of programmes.

3. THE PROGRAMMATIC APPROACH AND WATER QUALITY MANAGEMENT

EU water law is one of the oldest parts of EU environmental law and since the 1970s a large amount of directives have come into force all aiming at regulating and protecting different aspects of European waters. Examples are the regulation of discharges in fresh waters, the protection of groundwater, the required quality for drinking water and the regulation of nitrates pollution or pollution stemming from urban waste water treatment plants. In all these fields, different approaches, aims and policy instruments have been followed. Yet, despite all differences, most of EU water law uses plans and programmes to achieving the objectives of the various water directives. Both the older water directives and the newer directives, such as the WFD, and the Floods Directive,[70] contain obligations requiring Member States to draw up plans and programmes.[71] The Nitrates Directive was adopted in 1991 to reduce water pollution by nitrates caused by agriculture and had to be implemented in 1993. To this end, Member States are required to take regulatory measures concerning the storage and application on land of all nitrogen compounds and concerning certain land management practices, also referred to as good agricultural practices, which should be laid down in 'codes of good agricultural practice'.[72] Moreover, a special regulatory regime applies to those waters in which a standard from *another* water

68 Annex XV, point 8(c) to the Directive.

69 Conlan, Abbot and Moosmann (n 42) 50 and 51.

70 European Parliament and Council Directive 2007/60/EC of 23 October 2007 on the assessment and management of flood risks [2007] OJ L288/27.

71 For an example of a EU water law directive that does not prescribe plans or programmes, see European Parliament and Council Directive 2006/7/EC of 15 February 2006 concerning the management of bathing water quality and repealing Directive 76/160/EEC [2006] OJ L64/37.

72 For a general analysis of this Directive, Helena van Rijswick and Herman Havekes, *European and Dutch Water Law* (Europa Law Publishing 2012) chs 8 and 11; Helena van Rijswick, 'The Relationship Between the Water Framework Directive and Other Environmental Directives, with Particular Attention to the Position of Agriculture' (2006) 17 WL 193; Henrik Josefsson and Lasse Baaner, 'The Water Framework Directive—A Directive for the Twenty-First Century?' (2011) 23 JEL 463; David Grimeaud, 'The EC Water Framework Directive – An Instrument for Integrating Water Policy' (2004) 13 RECIEL 27 and Helmut Blöch, 'European Water Policy and the Water Framework Directive: an Overview' (2004) 1 JEEPL 170.

directive (ie the Drinking Water Directive)—which is a threshold of 50 mg/l nitrates (Annex I Nitrates Directive)—is or could be exceeded, if the action required by the Nitrates Directive is not taken. Member States must designate these areas as 'vulnerable zones',[73] as soon as it may be assumed that the pollution of a particular body of water by nitrates is caused to a significant extent by agriculture.[74] In these areas, the Nitrates Directive prescribes the adoption of so-called 'action programmes',[75] in which mandatory and, if necessary, additional measures should be prescribed.[76] Action programmes are accompanied by an obligation to monitor and report, but remain the *only* instrument to achieve the objectives of the Nitrates Directive. Such programmes have thus a delinking effect, as will be discussed in Section 3.2.

In 2000, the WFD entered into force with the aim of making European water policy more transparent and effective by offering a coherent legal framework for water management that also respects the principle of subsidiarity.[77] The WFD aims at an adaptive and integrated approach, by means of coordination with other water directives and with directives and policies in other fields. Integration is achieved in particular by the use of an integrated plan—a river basin management plan—and programmes of measures.[78] These programmes combine measures which were already required under a number of different water directives and environmental directives.[79] As will be discussed in Section 3.2, the programmatic approach does not have a delinking effect.

Being a framework directive, the WFD has an impact on the programmatic approach under the Nitrates Directive. Indeed, action programmes under the Nitrates Directive are part of the programme of measures under the WFD and can be combined with the programme of measures if all the mandatory elements of the nitrate action programmes can be recognised in the WFD programme of measures.[80] If Member States have designated the whole territory as a vulnerable zone under the Nitrates Directive, the WFD requires the Member State to endeavour to achieve the objectives of the WFD for waters in these protected areas, in addition to the standards contained in the directives under which protected areas have been established.[81] The WFD itself, however, does not set more stringent standards for water pollution

73 Member States can opt to designate the whole territory as a vulnerable zone. On the use of this option, Andrea Keessen and others, 'The Need for Flexibility and Differentiation in the Protection of Vulnerable Areas in EU Environmental Law: The Implementation of the Nitrates Directive in the Netherlands' (2011) 8 JEEPL 162.

74 Case C-293/97 *The Queen v Secretary of State for the Environment and Ministry of Agriculture, Fisheries and Food, ex parte Standley and Others and D.G.D. Metson and Others* [1999] ECR I-02603 (*Standley*).

75 An action programme is a plan or programme within the meaning of the Strategic Impact Assessment Directive.

76 Keessen and others (n 73).

77 Which led to different ways of implementation throughout the European Union: Andrea Keessen and others, 'European River Basin Districts: Are They Swimming in the Same Implementation Pool?' (2010) 22 JEL 197.

78 Lasse Baaner, 'The Programme of Measures of the Water Framework Directive – More than Just a Formal Compliance Tool' (2011) 8 JEEPL 82.

79 In addition, the WFD uses a combination of source-based measures and effects-based quality standards; an important role is also allocated to financial instruments.

80 See art 11(3)(a) which refers to Annex VI, pt A under ix.

81 See arts 4(1)(c), 4(2) and 4(8).

in protected areas under the Nitrates Directive, which is not strange as the amount of nitrates that may affect the ecological status of waters—the requirement under the WFD—is much more stringent than under the Nitrates Directive.[82] It is unclear which programmatic approach applies in case of a contradictory overlap. This situation in relation to contradictory requirements can be seen under the Wild Birds and Habitat Directives[83] and the WFD and these are difficult to solve until the CJEU sheds light on this issue.[84]

In this section, we establish the room for improving legal certainty and adaptability as regards the provisions of the Nitrates Directive and the WFD concerning the actors involved in the decision-making process and their access to justice and public participation (Section 3.1), the content of programmes (Section 3.2), and the monitoring of the results and effectiveness of programmes (Section 3.3). Section 4 will provide a summary of the main findings of the analysis performed in this section, and will compare them with those concerning the NEC Directive and the AQD.

3.1 The Actors Involved in the Decision-making Process and Their Access to Justice and Public Participation

The provisions of the Nitrates Directive and of the WFD concerning the actors involved in the decision-making process and their access to justice and public participation show room for improving legal certainty and adaptability.

About the actors involved in the decision-making process, both Directives address the obligation to adopt and implement a programme to the Member States, leaving it up to them to select the most appropriate administrative body. It can be expected that a programme will be mainly drafted by the central authorities if Member States decide to adopt general applicable measures for all river basins falling within their territory. In other cases, the geographical extension of vulnerable areas and of river basins will in practice influence the public authorities actually involved in the making of a programme of measures.[85]

Despite transboundary pollution being a concern under both Directives, only the WFD tackles this problem in detail. Article 3(3) of the Nitrates Directive only states that when a Member State is affected by pollution from waters from another Member State, it may notify this to that Member State. The Member State concerned shall cooperate in the identification of the measures necessary to achieve the goals of the Directive. Where appropriate, the Commission should cooperate too.[86] This framework allows the drawing up of joined action programmes. Yet, this is not required. Other measures can be adopted as well. In contrast, under the WFD a joined river basin management plan, which includes a programme of measures, *must*

82 The WFD's standard is 2.3 mg/l and the Nitrates Directive's one is 11 mg/l.

83 Originally, Council Directive 79/409/EEC of 2 April 1979 on the conservation of wild birds [1979] OJ L103/1 and Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora [1992] OJ L206/7.

84 Carel Dieperink and others, 'Ecological Ambitions and Complications in the Regional Implementation of the Water Framework Directive in the Netherlands' (2012) 14 Water Pol 160.

85 van Rijswick and Havekes (n 72) ch 8.3.

86 As the Nitrates Directive forms an integral part of the WFD, this requirement is reinforced by arts 12 and 16 of the WFD.

be drafted for river basins falling within the EU territory (Articles 3 and 13).[87] This means, for example, that international river commissions will be established and that transboundary river basin management plans will have to be drafted. Moreover, integral to the implementation of the WFD is the Common Implementation Strategy (CIS), established by the Water Directors of the Member States.[88] Under the CIS, Water Directors prepare guidance documents with explanations, requirements, and best practices. These documents could increase clarity about the implementation of the WFD. However, their legal status is unclear and the CJEU retains final authority on the WFD's interpretation.[89] In practice, the development of transboundary cooperation does not seem to diminish the national organisation of water management in the various Member States. Indeed, a transboundary river basin management plan is based on the national river basin plans, which are combined by the transboundary river basin authority to form a single plan. At present, the need for policy and administrative integration within national frameworks continues to form an obstacle to the formation of international water authorities. Treaties would seem the most appropriate way of regulating cooperation for the larger transboundary waters, while Member States generally seem to opt for informal cooperation for the smaller, regional transboundary waters.[90] In such cases, questions arise regarding shared responsibility, on the one hand, and the individual obligation of each Member State to fulfil EU obligations on the other.[91] EU law has not yet provided an adequate solution for this, giving room for improving legal certainty.[92]

Under both Directives, public participation is explicitly regulated. Under the Nitrates Directive, this occurs through Directive 2003/35/EC.[93] Under Article 2 of Directive 2003/35/EC, 'the public'[94] shall have an early and effective opportunity to participate in the preparation, modification and review of the action programmes under Article 5(1) of the Nitrates Directive. Under this provision, the public is

87 For international river basins that extend outside the EU, Member States are only required to *endeavour* to produce a single river basin management plan.

88 Water Director, Common Implementation Strategy for the Water Framework Directive (2000/60/EC), Strategic Document, 2 May 2001 <http://ec.europa.eu/environment/water/water-framework/objectives/pdf/strategy.pdf accessed > accessed 18 July 2016. Finally, the Commission provided for multi-stakeholder Consultative Fora and Expert Advisory Fora to provide for input to the CIS.

89 Henrik Josefsson, 'Ecological Status as a Legal Construct—Determining its Legal and Ecological Meaning'
(2015) 27 JEL 231.

90 Ellen Hey and Helena van Rijswick, 'Transnational Water Management' in Oswald Jansen and Bettina Schöndorf-Haubold (eds), *The European Composite Administration* (Intersentia 2011); Helena van Rijswick, Herman Gilissen and Jasper van Kempen, 'The Need for International and Regional Transboundary Cooperation in European River Basin Management as a Result of New Governance Approaches in EC Water Law' (2010) 11 ERA Forum 129.

91 Jasper van Kempen, *Europees waterbeheer: eerlijk zullen we alles delen? (European Water Management: Fair Sharing For All? An Analysis of the European River Basin Approach in Light of Transboundary Water Pollution Between Member States)* (BJU 2012) 360–82.

92 C-459/03 *European Commission v Ireland* [2006] ECR I-04635 (*Mox plant*) shows that international agreements can become part of the European legal order and be enforced through arts 258 and 259 TFEU.

93 The Nitrates Directive was not amended, though.

94 Defined as: 'one or more natural or legal persons and, in accordance with national legislation or practice, their associations, organizations or groups', art 2(1) of the Directive.

entitled to express comments and options. Competent authorities must take due account of the results of public participation. A conjunctive reading of Article 2 of Directive 2003/35/EC and Article 5(7) of the Nitrates Directive, which requires the review and revision of action programmes at least every four years, means that the public will have constant opportunities to express their opinion about action programmes. This possibility, if correctly implemented, enhances adaptability and, therefore, can be praised. Yet, in our opinion, adaptability and legal certainty would have benefited from a clearer formulation of Article 2(1)(a) of Directive 2003/35/EC. As stated above in Section 2.1, Article 2 of Directive 2003/35/EC requires the public to be informed of any *proposals* for a plan or programme. Legally speaking, proposals can be withdrawn and amended. Yet, *de facto*, there is a risk that the choices presented in the proposal represent a more or less well-defined political preference of the public authority presenting the proposal. In practice, several options could already have been set aside.

In our opinion, the approach to public participation followed under the WFD seems to be preferable. Article 14 WFD contains specific provisions for the active participation of the public at an early stage. In particular, it requires public participation even before the publication of a draft river management plan.[95] If well-implemented, this legal framework spurs adaptability, given that it diminishes the chances that data relevant to predict developments will be lost. It also increases legal certainty, given the positive effects that public participation can have on reducing legal challenges.[96]

One negative aspect concerning adaptability and legal certainty affecting both Directives is their silence about access to justice, in the sense that no provision concerns the possibility for the public to challenge the validity of a programme of measures before a national judge. This lacuna is exacerbated by the lack of case law from the CJEU concerning direct actions in national courts under these two Directives. It is, therefore, completely unclear whether direct actions against a river basin management plan or a programme of measures are possible. In light of the Aarhus Convention, this uncertainty is unacceptable, as this hampers the basic idea of the Aarhus Convention to guarantee access to the courts in environmental matters.

3.2 The Content of Programmes

Both Directives leave discretion to the Member States about how to achieve the Directives' goals. Given the impact that a high level of flexibility can have on both legal certainty and adaptability, the EU legislator limits Member States' freedom under both Directives. This is done by means of requirements concerning the insertion of specific measures in a programme (Section 3.2.1), time limits to achieve the material goals (Section 3.2.2), and, finally, regulating the relationship between

95 For example, a timetable and work programme for the production of the plan must be open to public participation at least three years before the beginning of the period to which the plan refers.

96 Julie Adshead, 'Public Participation, the Aarhus Convention and the Water Framework Directive' (2006) 17 WL 185; William Howarth, 'Aspirations and Realities under the Water Framework Directive: Proceduralisation, Participation and Practicalities' (2009) 21 JEL 391.

programmes and material goals (Section 3.2.3.). Despite these limitations, in this section we establish that there is still room to improve legal certainty and adaptability.

3.2.1 Requirements to Include Specific Measures in the Programmes

Under the Nitrates Directive, after the designation of vulnerable zones, Member States must include certain 'mandatory' measures in action programmes. These measures form the backbone of the protection regime from a substantive perspective, reason to mention them briefly. Mandatory measures are those measures which Member States have prescribed in their codes of good agricultural practice (established under Article 4)[97] and the measures mentioned in Annex III to the Nitrates Directive. The latter includes: rules for the amount of manure that can be applied to the land, expressed as an amount of nitrogen that can be applied per hectare per year, ie 170 kilograms of nitrogen per year per hectare; rules on the period and the manner in which fertiliser may be applied to the land; provisions on the balanced application of fertilisers to ensure no more nitrogen is applied to the land than needed by the crops; provisions on the storage capacity for livestock manure for each farm; and, finally, additional measures to be taken in particularly vulnerable zones. Moreover, Member States are compelled to adopt additional measures if the mandatory measures are considered to be insufficient to achieve the goals of the Directive (Article 5(5) of the Directive). No indication is provided as regards what kind of measure can be considered to be an 'additional measure' for the purposes of the Directive. This notwithstanding, practice indicates that additional measures could be land-use management, the maintenance of a minimum quantity of vegetation cover, the establishment of fertiliser plans and the keeping of records on fertiliser use, and the prevention of water pollution from run-off and the downward water movement in irrigation systems.[98] In selecting additional measures, Article 5(5) of the Directive requires a cost-effectiveness assessment of the proposed additional measure. In light of the EU proportionality principle, Member States will have to opt for the measure which is the most cost-effective. Regrettably, the Directive does not specify what is meant by the concept of 'costs' under Article 5(5) of the Directive. This lacuna can affect legal certainty.

About the content of programmes of measures, the WFD integrates many former and existing plans and programmes in 'river basin management plans' (Article 13) and 'programmes of measures' (Article 11).[99] A river basin management plan contains, in the first place, a summary of the programme of measures that are intended to fulfil the objectives of the Directive. The plan must also contain the objectives, standards, monitoring, and information measures, and priorities for each river basin. Annex VII to the Directive describes the information that must be given in the plan. Another important element of the river basin management plan is the results of the

97 In other areas, the codes of good agricultural practice must be implemented by farmers on a voluntary basis (art 4(1)(a)). Hence, the Nitrates Directive impacts also non-vulnerable zones.

98 van Rijswick and Havekes (n 72) ch 11.

99 Additionally, river basin management plans under the WFD must be coordinated with flood risk management plans under the Floods Directive. Finally, programmes of measures and river basin management plans fall under the plans of action required by the Marine Strategy Directive.

analyses that have to be made (under Article 5) of the characteristics of the river basin district and the factors that affect the status of the river basin.

Under the Directive, measures are subdivided into mandatory 'basic measures' and 'supplementary' measures. The basic measures are minimum requirements needed to comply with EU legislation for the protection of water, including, for example, the Bathing Water Directive.[100] The basic measures include mandatory prior authorisation for point source discharges liable to cause pollution. General rules may be used instead of permits, provided that they, at the very least, lay down emission controls.[101] If the environmental objectives of the Directive cannot be achieved with the basic measures, supplementary measures must be taken. Part B of Annex VI contains a non-exhaustive list of such measures, ranging from legislation to information campaigns, from codes of good practice to demand-management measures, and from educational projects to desalination plants. In our opinion, the specific nature of certain basic measures is beneficial to legal certainty. They clarify rights and obligations under a programme of measures.

Under the WFD, judicial protection is also protected by the fact that, as stated in the *Weser* case, 'Article 4(1)(a) of Directive 2000/60 does not simply set out, in programmatic terms, mere management-planning objectives, but has binding effects, once the ecological status of the body of water concerned has been determined, at each stage of the procedure.'[102] Accordingly, individuals can rely on the quality standards to challenge individual authorisations based on the programme of measures,[103] *de facto* leading to a review of the programme of measures. This review possibility is strengthened by the fact that the CJEU has severely restricted the possibility of applying a net-loss approach.[104] Yet, as under the AQD, it should be noted that this possibility affects the rights created under a programme and, therefore, that legal certainty is not maximised by this situation.

3.2.2 The Time Limit to Redress Exceedances

Both Directives prescribe a specific deadline by which a programme must have been made operational or been implemented. However, the Nitrates Directive does not prescribe a specific date by which the goals of the Directive should be achieved. Under the Nitrates Directive, an action programme must be implemented within four years of its establishment. Such an action programme must aim at achieving the objective set out in Article 1 of the Directive. If the implementation of the action programme does not achieve the quality standards set under the Drinking Water Directive, Member States are obliged to review and revise the relevant action

100 European Parliament and Council Directive 2006/7/EC of 15 February 2006 concerning the management of bathing water quality and repealing Directive 76/160/EEC [2006] OJ L64/37.

101 art 11(3)(g) of the WFD.

102 *Weser* (n 2) [43] in line with Case C-32/05 *European Commission v Luxembourg* [2006] ECR I-11323 (*Commission v Luxemburg*) on earlier water directives.

103 *Weser* (n 2) [51].

104 ibid [50]. Similarly, Helena van Rijswick and Chris Backes, "'Ground Breaking Landmark Case on Environmental Quality Standards? The Consequences of the CJEU 'Weser-judgment" (C-461/13) for Water Policy and Law and Quality Standards in EU Environmental Law' (2015) 12 JEEPL 363.

programme (Article 5(7) of the Directive). Basically, a new deadline of four years starts to run. Clearly this affects the enforceability of the Directive in a negative way.

In contrast, Article 4 of the WFD establishes that environmental quality standards should be achieved by 2015. However, under Article 4(4) of the WFD Member States may, under certain conditions stated in the Directive, extend the time limit within which the objectives must be met by a maximum of 12 years (two times six years). For every extension of a deadline, reasons must be given in relation to each water body in the river basin management plan, in which a summary of the programme of measures is included.[105] An extension of a deadline is possible, for instance, if completing improvements within the time scale would be disproportionately expensive.[106] This aspect of the WFD is further discussed in the next section.

3.2.3 The Relationship Between Programmes and Material Goals

Action programmes under the Nitrates Directive aim at achieving the goals of the Directive as indicated under Article 1. This provision is vague and does not establish specific quality standards. The only material goals present in the Directive are the emission limit values indicated under paragraph 2 of Annex III to the Directive. Under this provision, Member States must ensure that no more than 170 kilograms of nitrogen per hectare is emitted by the farms covered by the action programme. This emission limit value can be changed by means of specific measures in an action programme, albeit through the medium of a Commission decision. Indeed, under paragraph 2(b) of Annex III, after the first action programme, Member States may, under certain conditions, fix different amounts from the nitrogen load referred to in the Directive.[107] Basically, by stimulating the use of crops having a long growing season and/or a high nitrogen uptake, such as maize, Member States can allow less stringent emission limit values than those indicated in the Directive. This possibility clearly spurs adaptability.

Also the WFD creates a linkage between the content of the programmes and the material goals set out under the Directive. The programme of measures aims at achieving the environmental objectives set out under Article 4 of the Directive, which are a further elaboration of the general objectives contained in Article 1.[108] Article 4 distinguishes between objectives for surface water, for groundwater and for protected areas. In the end, though, the WFD primarily lays down details for the protection of the quality of surface water and groundwater.[109] The environmental objectives under

105 See arts 4(4) and 13(4) and Annex VII to the WFD.

106 art 4(4)(a)(ii) of the WFD.

107 Member States used this possibility, eg Commission Decision of 5 February 2010 amending Decision 2005/880/EC granting a derogation requested by the Netherlands pursuant to Council Directive 91/676/EEC concerning the protection of waters against pollution caused by nitrates from agricultural sources (2010/65/EU) [2010] OJ L35/18.

108 The WFD is an example of the so-called governance approach, eg Maria Lee, 'Law and Governance of Water Protection Policy' in Joanne Scott (ed), *Environmental Protection, European Law and Governance* (OUP 2009); Howarth (n 96); and van Rijswick, Gilissen and van Kempen (n 90).

109 Two directives have been adopted to this end concerning groundwater (European Parliament and Council Directive 2006/118/EC of 12 December 2006 on the protection of groundwater against pollution and deterioration [2006] OJ L372/19) and surface water (European Parliament and Council

Article 4 of the WFD are further elaborated in environmental quality standards under Annex IX and Article 16(7).[110] Quality standards are set by Member States for substances not on the list of priority substances (under Annex V), and in respect of priority substances for which EU standards have not been set under Article 16(8). A complex system of exceptions, elaborated in Articles 4(3)–4(7),[111] links these environmental goals to the content of the programme of measures, at least to a certain extent.

In particular, under Article 4(5), Member States may establish less stringent environmental objectives. This is permitted if waters are so affected by human activity, or their natural condition is such that the achievement of the objectives would not be feasible or would be disproportionately expensive. *De facto*, also the postponement of the time limit by which the quality standards must be achieved under Article 4(4), which was discussed above, implies a relaxation of the quality standards as such. Another possibility to deviate from the quality standards is given by Article 4(6), which offers an exemption for a temporary deterioration. Finally, Article 4(7) justifies a failure to meet the WFD objectives when this is due to new modifications to the physical characteristics of a water body or because of new sustainable human development activities.

The concept of 'disproportionate costs' in Article 4(4) is one of the elements of the WFD that enables a linkage between programmes and quality standards. This concept, if vaguely formulated, can spur adaptability but affects legal certainty. In our opinion, the WFD maximises adaptability and (almost) minimises legal certainty losses for the following reasons. In view of the EU principle of proportionality, the concept of 'disproportionate costs', under Articles 4(4) and 4(5) of the WFD, implies that an examination must be carried out in two stages: first, whether there are more efficient alternative actions for attaining the same goal, and secondly, whether the costs of the action are proportionate to the goal to be attained.[112] Besides, the margin by which costs exceed benefits should be appreciable and have a high level of confidence. Finally, in the context of disproportionality, the decision maker may also want to take into consideration the ability to pay of those affected by the measures and some information on this may be required.

The concept of 'disproportionate costs' has been addressed also by the Water Directors. According to them, an analysis as to whether costs are disproportionate is only useful after a combination of the most cost-effective solutions have been

Directive 2008/105/EC of 16 December 2008 on environmental quality standards in the field of water policy, amending and subsequently repealing Council Directives 82/176/EEC, 83/513/EEC, 84/156/EEC, 84/491/EEC, 86/280/EEC and amending Directive 2000/60/EC of the European Parliament and of the Council [2008] OJ L348/84).

110 The quality standards are established following an intercalibration exercise, involving comparing the classification results of the national monitoring systems for each biological element and for each common surface water body type among Member States in the same geographical intercalibration group, and assessing the consistency of the results with the normative definitions set out in s 1.2 of Annex V to the WFD.

111 Harald Ginzky, 'Exemptions From Statutory Water Management Objectives: Requirements, Spheres of Responsibility, Unresolved Implementation Issues' (2006) 3 JEEPL 117; Mireille Bogaart, 'The Coordination of Water Quality Objectives and Carbon Reductions: the Possibilities for Less Stringent Obligations under the WFD and the IPPC Directive' (2009) 20 WL186.

112 The suitability test has already been fulfilled by the measure considered to be disproportionately expensive.

examined.[113] Furthermore, when invoking an exemption, all feasible measures must still be taken in order to reach the required good status to the greatest extent possible.

The attempt to balance adaptability with legal certainty under the WFD is visible also when looking at the requirements for applying the exceptions mentioned above. First, Article 4(8) of the Directive requires that their application does not permanently exclude or compromise the achievement of the objectives of the Directive in other bodies of water in the river basin district. The application of the exceptions must be also consistent with the implementation of other EU environmental legislation. Finally, the availability of the exceptions under Articles 4(4) and 4(5) is limited by the requirement that these exceptions do not lead to a 'further deterioration'[114] of the status of the water body concerned. According to the CJEU, 'no further deterioration' also covers deterioration which does not result in classification of that body of water in a lower class.[115]

3.3 Monitoring the Results and Effectiveness of Programmes

Finally, legal certainty and adaptability can be improved also as regards the manner in which the Nitrates Directive and the WFD regulate the monitoring of the results and effectiveness of programmes.

In light of their respective objectives, each Directive prescribes the monitoring of water quality. The Nitrates Directive contains different obligations for monitoring.[116] Firstly, the level of nitrates pollution must be monitored. For those Member States which have designated vulnerable zones, Article 6 contains a monitoring obligation on the whole territory of the Member States, in order to designate and review vulnerable zones, that is based on sampling. This should occur on the basis of the methodology described in Annex IV to the Directive. For Member States which apply the action programmes to their entire territory, the Directive contains an obligation in Article 5(6) to 'monitor the nitrate content of waters at selected measuring points which make it possible to establish the extent of nitrate pollution in the waters from agricultural sources'. This requirement means that both nitrate levels and the source of this pollution should be known.

About the assessment of water quality, Article 8 of the WFD requires programmes for the monitoring of water status to be established in order to obtain a coherent and comprehensive overview of the water status in each river basin district. Under Annex V to the WFD, the monitoring programme has to cover the volume and level or rate of flow to the extent relevant for the ecological and chemical status of surface water. Quite a refined legal framework for the assessment of water quality is established to this extent. For example, monitoring programmes for surface waters

113 Water Directors, 'Conclusions on Exemptions and Disproportionate Costs, Water Directors' (Meeting under Slovenian Presidency, Brno, 16–17 June 2008) available at the CIRCABC Database.

114 On the concept of 'no further deterioration', its implication and implementation, see Keessen and others (n 77) 197–222.

115 *Weser* (n 2) [70].

116 Barbara Beijen, Helena van Rijswick and Helle Anker, 'The Importance of Monitoring for the Effectiveness of Environmental Directives. A Comparison of Monitoring Obligations in European Environmental Directives' (2014) 10 Utrecht L Rev 126.

should provide information for the effective design of future monitoring programmes and for the assessment of long-term changes (Point 1.3.1 of Annex V), for the establishment of the status of water bodies at risk of failing to meet their environmental objectives and for changes in their status resulting from the programmes of measures (Point 1.3.2 of Annex V). Additional requirements stem out of Article 5 of the WFD, which, amongst other things, requires an analysis of the causes of physical, climatological, environmental and societal changes, given their undeniable influence on the physical elements of a water system.[117] This information is necessary to take adequate, proportionate and fair measures to improve and protect the status of water bodies. In our opinion, the above legal framework spurs legal certainty as Member States' actions can be reviewed in light of the detailed legal framework set out under the WFD. Moreover, the combination of planning, programmes and monitoring and the requirement to revise them in case of new circumstances or insufficient results in achieving the goals, serves the adaptability of the approach chosen in the WFD.

About the effectiveness of programmes, Article 5(6) of the Nitrates Directive includes the 'obligation to draw up and implement *suitable* monitoring programmes to assess the effectiveness of action programmes established pursuant to this Article'. This means that the effectiveness of the action programmes should be monitored independently from the existence of vulnerable zones or an action programme that applies to the whole national territory. This type of monitoring programmes can spur adaptability: if the measures taken are not effective, the action programmes must be adapted. These positive features of the Nitrates Directive are affected by the lack of clear criteria on *how* to monitor the effectiveness of action programmes. Article 5(5) of the Directive simply requires that the assessment measures are 'suitable to assess the effectiveness of action programmes'. There are no obligations as to the frequency of sampling, the density of the monitoring network, the methods used, etc. This has resulted in significant differences between the Member States, which limits the possibilities for a comparison between different approaches.[118] Legal certainty can therefore be improved.

Continuity of the monitoring network is highly important in order to ensure the comparability of data from different years within one Member State. Yet, the Nitrates Directive does not, as such, prevent an adaptation of the monitoring programme.[119] Article 8 allows an adaptation of the assessment methodology for scientific and technical progress, by means of a comitology decision. Moreover, Annex I(B.3) requires that the *current* understanding of the impact of action programmes must be taken into consideration when reviewing the designation of areas as

117 Helena van Rijswick and Elizabeth Vogelezang-Stoute, 'The Influence of Environmental Quality Standards and the River Basin Approach Taken in the Water Framework Directive on the Authorisation of Plant Protection Products' (2008) 17 EEELR 78. On the requirement to perform an analysis of the (national portion of) each river basin district characteristics, the impacts of human activities on the status of surface water and groundwater, and an economic analysis of water use, Roy Brouwer, Sjoerd Schenau and Rob van der Veeren, 'Integrated River Basin Accounting in the Netherlands and the European Water Framework Directive' (2005) 22 Stat J UN Econ Comm Eur 111.

118 Beijen, van Rijswick and Anker (n 116).

119 ibid.

vulnerable areas. This latter provision allows an automatic update of the methodology to assess the effectiveness of action programmes. Although automatic adaptation seems positive in terms of adaptability, it should be followed by a framework regulating how the new monitoring techniques link to the old ones. Moreover, it should be ensured that the new techniques are applied in all Member States. The Commission tried to harmonise monitoring by providing Draft Guidelines for the monitoring required under the Nitrates Directive.[120] However, these Draft Guidelines have never been officially adopted. Member States may use these Draft Guidelines as an inspiration for establishing their monitoring programmes, but the Commission cannot compel this.

The WFD also has a system to increase the effectiveness of programmes of measures which is well suited to adaptability. The monitoring data shall be used to update the river basin management plans in a six-year planning cycle. If the monitoring data reveals that the objectives for the current planning period will not be met in time, they are used for an intermediate revision of the programme of measures. These interim reports, which are sent to the Commission (Articles 11 and 15(3) WFD), serve to describe the progress in the implementation of the planned programme of measures. If necessary, Member States shall take the necessary measures to achieve the objectives and adjust their programmes of measures. Article 11(5) guarantees the effectiveness and the adaptability of the WFD, backed up by the CJEU's ruling that quality standards are defined in Article 2 as obligations of result,[121] and that the environmental objectives require strict implementation measures by the Member States.[122]

4. COMPARISON: THE ROOM FOR IMPROVING LEGAL CERTAINTY AND ADAPTABILITY

When we compare the analyses of the manner in which the programmatic approach is regulated under air quality law and water law, the main conclusion is that there is ample room for improving adaptability and legal certainty under a programmatic approach. Given the increasing wish to use the programmatic approach in environmental law, this conclusion should give rise to concerns. The lack of legal certainty and adaptability can indeed jeopardise the possibility to achieve the EU environmental standards. Accordingly, below we formulate recommendations to improve legal certainty and adaptability under each of the three categories of rules that we have used to systematically analyse the manner in which the Union legislator has regulated the programmatic approach under the Directives here analysed, ie the actors involved in the decision-making process and their access to justice and public participation (Section 4.1), the content of programmes (Section 4.2) and the monitoring of the results and effectiveness of programmes (Section 4.3).

120 European Commission, Draft guidelines for the monitoring required under the Nitrates Directive (91/676/EEC). Version 3. This guidance can be requested to the Commission.

121 *Commission v Luxemburg* (n 102).

122 *Weser* (n 2).

4.1 The Actors Involved in the Decision-making Process and Their Access to Justice and Public Participation

As regards the actors involved in the decision-making process, the four Directives analysed leave great discretion to the Member States concerning the public authorities responsible for drawing up the programmes. Although the Directives do not regulate the cooperation between various public bodies, this is understandable in light of the principles of institutional autonomy and subsidiarity. The same cannot be said for the lack of requirements concerning transboundary pollution. While transboundary pollution occurs under each Directive, only the WFD regulates it in detail, offering more clarity about rights and obligations than the other Directives on this aspect, despite some problems still remaining. Thanks to the WFD's regime, transboundary-cooperation practice is developing in this field of environmental law. Of course, a causal link between legal rules and daily practice is difficult to establish. Yet, it is clear that a more detailed legal framework on transboundary pollution will, eventually, increase the adaptability of the programmatic approach, and thereby increasing the chance of achieving EU environmental goals. This is due to the fact that the exchange of information between national authorities improves the quantity and, arguably, the quality of the data concerning the status of an area in need of protection. In doing so, it allows developments to be predicted with more accuracy than if the data-gathering phase only had a national dimension and, therefore, it facilitates adaptability. Accordingly, we recommend that the EU legislature regulates transboundary cooperation in detail when using the programmatic approach for the protection of transboundary environmental areas.

As regards public participation and access to justice to challenge the legality of a programme, the main finding is that only the WFD ensures effective participation on paper and that none of the Directives regulates access to justice. In order to improve adaptability and legal certainty, requirements on public participation should be shaped following the approach used under Article 14 of the WFD, ie by requiring participation before the establishment of a draft plan or programme. About judicial protection, provisions implementing Articles 9(2) and (3) of the Aarhus Convention should be adopted as regards all four Directives. This is necessary in order to ensure effective participation and, hence, enhance both adaptability and legal certainty. Direct actions shall be preferred to indirect actions to achieve these goals given that they allow remedying shortcomings at source. Moreover, judicial protection by means of indirect actions can affect the rights arising under a plan or programme and hence legal certainty.

4.2 The Content of Programmes

The Directives analysed here allow considerable discretion to the Member States about the content of programmes. Yet, they also require the adoption of certain specific (kinds of) measures. Such mandatory measures are explicitly regulated under the WFD and the Nitrates Directive, while for air quality standards they derive from the overlap of the AQD and the NEC Directive with other EU environmental measures. This latter legislative technique makes it more difficult for individuals and competent authorities to understand whether the content of a programme complies with

EU requirements. Legal certainty seems, as discussed in Section 3.2, better achieved by an explicit regulation of mandatory measures.

This is particularly important in those cases in which individuals are not allowed to rely on the material goals of the Directive at stake to challenge the validity of specific decisions adopted on the basis of a programme. The analysis carried out under section 2 shows that, under the NEC Directive, individuals cannot request a review of authorisation procedures in light of the Directive's goals, at least not in general terms. Under the NEC Directive the programmatic approach has a delinking effect. When coupled with a lack of requirements regarding the content of a plan of programme, this legislative technique makes it basically impossible for the public to scrutinise public authorities' choices. The lack of a possibility of judicial review clearly affects judicial protection. In addition it can also affect adaptability as individuals will refrain from interacting with the decision makers, depriving them of information potentially useful to predict developments. Accordingly, when the Union legislator prescribes a programmatic approach with delinking effect, it should also establish specific requirements concerning the content of a plan and programmes. The public can then use these requirements during the public participation phase to shape the content of plans and programmes, and to express their agreement or disagreement with public authorities' choices.

The above recommendation is less (but still) relevant in those cases in which a programmatic approach does not have a delinking effect. In Sections 2.2 and 3.2, we have clarified that under the WFD and, arguably also, the AQD, individuals can go to court to challenge the validity of a specific measure adopted on the basis of a plan or programme by relying on the Directives' goals. This is a welcome finding from the perspective of judicial protection. Yet, we argue that there is still room for improving legal certainty. This is because, as stated before, the AQD and the WFD do not regulate direct actions. Judicial protection by means of indirect actions can affect the rights arising under a plan or programme. By means of direct actions, the effectiveness of public participation can be enhanced, and therefore legal certainty and adaptability can be increased.

From the perspective of Member States' sovereignty, the use of a programmatic approach without delinking effect can be seen as a limitation, as the manner in which they implement the directives' goals will be reviewed in all phases of the implementation process and not only while scrutinising the effectiveness of a plan or programme. This limitation does not need, however, to be an absolute one. The WFD and AQD show two different techniques for allowing discretion to the Member States as regards the adoption of the most cost-effective measures in a programme. The WFD establishes a link between the quality standards and the content of programmes of measures. The derogation possibilities under Article 4 of the Directive allow the Member States to lower the quality standards if this would lead, among other things, to disproportionate costs. By linking the concept of 'disproportionate costs' to a set of guidelines on how to interpret it and by subjecting the derogation possibilities to specific requirements, Member States' discretionary authority is, once again, limited. The WFD thus establishes a refined system of checks and balances which can be praised from the perspective of balancing flexibility with legal certainty. However, as the use of exemptions is laid down in the river basin management plans,

it is of utmost importance that participation and access to the courts is available in order to prevent legal certainty and adaptability from being affected.

The AQD uses a different technique to balance flexibility with legal certainty. Under this Directive, discretionary power is granted by regulating the time limit by which exceedances must be redressed in a vague manner. The 'as short as possible' formula allows for interests other than environmental ones to be taken into consideration, providing room for the Member States to pursue cost-effectiveness. Regrettably, such a discretion is not further counterbalanced by any kind of criterion refining the boundaries by which costs can be weighed against the achievement of the environmental goals. Legal certainty is affected by the lack of guidance as regards *which* other interests can be taken into consideration and *to what extent* this is possible. It is indeed difficult to establish whether the chosen date, and the related package of measures, is the appropriate one. By explicitly indicating a specific amount of time to redress exceedances, or at least a set of criteria to establish a specific deadline, this technique will ensure more legal certainty than it is now the case.

4.3 Monitoring the Results and Effectiveness of Programmes

All the Directives analysed here prescribe the methodology to assess the status of the environment in a detailed manner, although at times by means of modelling and estimations. Legal certainty seems to be well served. As regards adaptability, two techniques can be distinguished. In the case of the NEC Directive, we noticed that the methodology cannot be easily updated, given the international law origin of the requirements. The adaptability of methodology is, instead, partially automatic under the Nitrates Directive. Automatic adaptability is faster than when a specific procedure must be pursued. Accordingly, the latter technique is preferable in all those cases in which there is no international law regulating the subject matter. Yet, automatic adaptability should be followed by a provision to link new results with past results and to ensure that the new methodology is applied in all Member States.

Finally, none of the Directives establishes requirements on how to assess the effectiveness of programmes. Hence, Member States retain freedom about the methodology to establish such effectiveness. This freedom has led to the use of diverging techniques, affecting the possibility of establishing whether environmental goals have been achieved. Accordingly, we recommend the Union legislator to prescribe clear requirements about the assessment of the effectiveness of programmes. Such a recommendation is also beneficial for adaptability given that a common methodology allows comparing programmes between Member States. Member States can indeed learn from one another, and amend their programmes accordingly.

5. CONCLUSIONS

In this paper we have shown the room for improving legal certainty and adaptability under the programmatic approach, as regards the actors involved in the decision-making process of plans and programmes and their access to justice and public participation, the content of programmes, and the monitoring of the results and effectiveness of programmes. This is only first research on the effectiveness of the programmatic approach, which limited itself to clarity and adaptability in the drafting

of the requirements concerning the drawing of plan and programmes to achieve EU environmental standards. In the coming years, we will see to what extent the goals pursued under the AQD and the WFD will be achieved. Then we will have more empirical data on the functioning of the various parts of the programmatic approach. The effectiveness of the programmatic approach as a whole can then be further researched. Such further research is needed in order to fully develop the potentials of this approach. Until that time, the EU and national legislators should refrain from blindly prescribing this approach. The above recommendations should be followed first.

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