

This article is published in a peer-reviewed section of the Utrecht Law Review

Public Values in Water Law: A Case of Substantive Fragmentation?

Monika Ambrus
Herman Kasper Gilissen
Jasper J.H. van Kempen*

1. Introduction

Water is often characterized as a public good for various reasons: it can benefit large numbers of people without diminishing its quality, it is a natural resource, it serves the basic needs of individuals, and is essential for maintaining the ecosystem. The underlying idea behind these reasons is the need to ensure that certain publicly important values, i.e. public values, are respected. Although there is a general idea about what these values might be, it is still unclear what the concrete public water values are and to what extent these are actually incorporated in the various dimensions of water law (economic, environmental and social) and at the different institutional/governance levels (international, regional, sub-regional and domestic). Given these dimensions and levels of governance, water law is therefore often described as horizontally and vertically fragmented. The term ‘fragmentation’ is often associated with negative consequences; the general idea is that diverging approaches would lead to inconsistent, incoherent and ineffective results as well as to legal uncertainty. These negative connotations then raise the question whether institutional fragmentation negatively affects the protection of public values.

Against this background, the following research question will be addressed in this article: *Is there substantive fragmentation regarding the protection of public water values across different institutional levels, and to what extent?* Hence, the main purpose of this article is twofold: (1) to provide a working definition of and a theoretical framework for the identification of public values; and (2) to explore which public values are being protected at the different levels and across two main dimensions. To this end, this article will provide insights into the different levels of governance on the basis of some representative examples. In addition to exploring public values within international water law (international level), the relevant water law norms in the European Union (regional level), in the Danube River Basin (sub-regional level) and in the Netherlands (domestic level) will also be analysed. Until now, there has been no extensive and integral assessment of public values in water law across the levels mentioned.¹ This article, therefore, aims

* This study was carried out as part of the research project ‘Resilient legal formats for hybrid institutions protecting public values in water management’ financed by Next Generation Infrastructures Foundation. See <www.nextgenerationinfrastructures.eu>.

Monika Ambrus is a lecturer in public international law, University of Groningen (the Netherlands), contact: m.ambrus@rug.nl. Herman Kasper Gilissen is a researcher at the Utrecht Centre for Water, Oceans and Sustainability Law, Utrecht University (the Netherlands), contact: h.k.gilissen@uu.nl. Jasper van Kempen is a legal advisor at the Directorate-General for Public Works and Water Management (*Rijkswaterstaat*) of the Dutch Ministry of Infrastructure and the Environment. Until recently, he was a researcher of European water law at the former Centre for Environmental Law and Policy, Utrecht University (the Netherlands), contact: jaspervankempen@gmail.com.

1 In the literature, insofar as overviews of public values are given, such overviews are generally limited to one (or at most two) of the institutional levels. See for instance M. Ambrus, ‘Through the Looking Glass of Global Constitutionalism and Global Administrative

to fill this gap by carrying out a comparative assessment of water law across these levels focusing on the environmental and social dimension of water law.

In order to achieve these purposes, the article will first set out the conceptual contours of what public values are and how they can be approached (Section 2). The analysis of the representative examples at the different levels has been based on this conceptual framework: the public values that are enshrined in or that underlie the legal norms will be identified in Table 1, and a selection of them will be elaborated in further detail (Section 3). The intention is not to exhaustively list all public values that are somehow incorporated in water law. Rather, the analysis focuses on identifying those public values that are specifically important for the water sector. Finally, the article will conclude with a brief assessment of the status of substantive fragmentation of public values incorporated at the different levels of water law (Section 4).

2. Fragmentation and public values in water law: a conceptual framework

2.1. Fragmentation and its effects

International law is often described as fragmented, which is usually not regarded as a positive phenomenon.² Fragmentation or diversification of international law is meant to describe the specific feature of international law that its various fields, such as human rights law, economic law, environmental law etc., function in isolation, meaning that although they are part of the same family, there is hardly any relationship between these fields of law.

The academic literature on fragmentation and its possible effects is rather rich.³ A significant segment of this literature warns of the possible negative consequences of the fragmented structure of international law and pleads for de-fragmentation through different techniques. Among these consequences the following are most often mentioned: legal uncertainty, threat to the ‘credibility, reliability and, consequently, authority of international law’,⁴ or negative implications for the effectiveness of the law.⁵ It seems likely that these effects would also apply to the other levels of law examined in this paper.

The fragmentation aforementioned is of a horizontal nature. Another, less well-documented, kind of fragmentation is that of a vertical or substantive nature, meaning that certain public values that are protected in the law at a (higher) institutional level lack protection at a (lower) institutional level. A case of substantive fragmentation might, at first, give rise to the conclusion that public water values

Law’, 2013 *Erasmus Law Review* 6, no. 1; J.J.H. van Kempen, *Europees waterbeheer: eerlijk zullen we alles delen?* (diss. Utrecht), 2012; R. Nehmelman et al., *Allocation of Roles and Responsibilities in Dutch Water Governance: Legitimacy, Accountability and Effectiveness from a Legal Perspective*, 2013, OECD, background research paper; and H.K. Gilissen, *Internationale en regionaal-grensoverschrijdende samenwerking in het waterbeheer*, 2009. Also see H.F.M.W. van Rijswijk, *Moving Water and the Law – On the Distribution of Water Rights and Water Duties within River Basins in European and Dutch Water Law*, 2008.

2 For accounts addressing the positive side of fragmentation see, inter alia, M. Koskenniemi & P. Leino, ‘Fragmentation of International Law? Postmodern Anxieties’, 2002 *Leiden Journal of International Law* 15, no. 3, p. 575. See also International Law Commission, *Fragmentation of International Law: Difficulties arising from the Diversification and Expansion of International Law* (1 May-9 June and 3 July-11 August 2006), UN Doc A/CN.4/L.682 p. 14; L.J. Kotzé, ‘Fragmentation Revisited in the Context of Global Environmental Law and Governance’ (in manuscript), p. 33.

3 E.g. G. Hafner, ‘Pros and Cons Ensuing from Fragmentation of International Law’, 2004 *Michigan Journal of International Law* 24; B. Simma, ‘Fragmentation in a Positive Light’, 2004 *Michigan Journal of International Law* 25; M. Koskenniemi & P. Leino, ‘Fragmentation of International Law? Postmodern Anxieties’, 2002 *Leiden Journal of International Law* 15, no. 3, pp. 553-579; A.-Ch. Martineau, ‘The Rhetoric of Fragmentation: Fear and Faith in International Law’, 2009 *Leiden Journal of International Law* 22; T. Buergenthal, ‘Proliferation of International Courts and Tribunals: Is It Good or Bad?’, 2001 *Leiden Journal of International Law* 14; O.K. Fauchald & A. Nollkaemper (eds.), *The Practice of International and National Courts and the (De-)Fragmentation of International Law*, 2012; J. Pauwelyn, ‘Bridging Fragmentation and Unity: International Law as a Universe of Inter-Connected Islands’, 2003-2004 *Michigan Journal of International Law* 25; C.P. Romano, ‘The Proliferation of International Judicial Bodies: The Pieces of the Puzzle’, 1999 *NYU Journal of International Law and Policy* 31. In addition, the topic of fragmentation has also been dealt with in official documents. See, inter alia, Address by Judge Stephen M. Schwebel, President of the International Court of Justice, to the General Assembly of the United Nations, 26 October 1999; Address by H.E. Judge Gilbert Guillaume, President of the International Court of Justice, to the United Nations General Assembly 26 October 2000; Speech by H.E. Judge Gilbert Guillaume, President of the International Court of Justice, to the General Assembly of the United Nations, 30 October 2001; International Law Commission, *Fragmentation of International Law: Difficulties arising from the Diversification and Expansion of International Law* (1 May-9 June and 3 July-11 August 2006), UN Doc A/CN.4/L.682. Note that the distinction between substantive and institutional fragmentation is not always made or at least not mentioned explicitly.

4 G. Hafner, ‘Risks Ensuing from the Fragmentation of International Law’, in International Law Commission, *Report of the Working Group in Long-term Programme of Work*, ILC (LII)/WG/LT/L.1/Add. 1 (25 July 2000), p. 35.

5 See also L.J. Kotzé, ‘Fragmentation Revisited in the Context of Global Environmental Law and Governance’, (in manuscript), p. 10.

are ‘underprotected’ at a certain institutional level. In turn, this not only indicates a poor protection of generally accepted public values, but also a poor pursuance of public virtues, such as achieving high standards of human health and environmental protection. This might increase or maintain the risk of water-related environmental or human health hazards. Simply embedding public water values in the law – but especially the lower – institutional levels may help to decrease these social and environmental problems.

The purpose of this paper is not to address whether the consequences of horizontal and substantive fragmentation have occurred or could occur. Rather, the paper accepts that horizontal fragmentation may lead to the above-mentioned consequences, and thus examines whether there is a risk of substantive fragmentation. Put differently, it is hypothesised that these consequences are or could be real, and it explores the nature of existing fragmentation with regard to the public values vertically protected at the various levels. Should there be great variation and diversification in terms of these values, it is presumed that it could have negative effects on both the legal system and society, as indicated above.

2.2. Water and water services as public goods

Historically, water law has developed in fragments with the effect that it is now seen as incorporating different dimensions (horizontal fragmentation) at different levels (vertical fragmentation).⁶ Although these dimensions are qualified by different names by different authors,⁷ they can essentially be linked to the three main features of water: water as an environmental unit, water as an economic unit and water as a ‘social/human’ unit.⁸ The existing instruments seem to reflect these three main features of water, sometimes in a somewhat more separated manner and sometimes somewhat more integrally. For instance, at the international level the so-called water conventions regard water mainly as an environmental unit (environmental dimension),⁹ while the approach of the World Bank¹⁰ and the World Trade Organisation¹¹ mainly deals with water as an economic unit (economic dimension), and the rather recent acknowledgment at the UN level of the human right to water and the other related human rights instruments seem to regard water as a ‘social/human’ unit (social dimension).¹² At the other levels of water

6 For an overview of this development see J. Gupta & N. Sanchez, ‘Global Green Governance: Embedding the Green Economy in a Global Green and Equitable Rule of Law Polity’, 2012 *Review of European Community and International Environmental Law* 21, no. 12, p. 14.

7 The UN World Water Development Report, for instance, mentions four dimensions: ‘the economic (efficient use), environmental (sustainable use), political (equal democratic opportunities), and social (equitable use), together providing entry and exit points for the water governance discourse.’ See P. Wouters, ‘Global Water Governance through Many Lenses’, 2008 *Global Governance* 14, no. 4, p. 530. Rather than using the term ‘dimensions’, scholars describe global water governance as the compilation of different ‘discourses’, also described as ‘Mobius web arena of water governance’: the web covering the international law arena, the economic arena and the human rights and policy arena. See J. Gupta et al., ‘The Human Right to Water: Moving Towards Consensus in a Fragmented World’, 2010 *Review of European Community and International Environmental Law* 19, no. 3, p. 295. See also J. Blatter & H. Ingram, ‘States, Markets and Beyond: Governance of Transboundary Water Resources’, 2000 *Natural Resources Journal* 40, no. 2, p. 447.

8 See Ambrus 2013, supra note 1, p. 32.

9 Convention on the Law of the Non-Navigational Uses of International Watercourses (1997 Convention), adopted in New York on 21 May 1997; Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Helsinki Convention), adopted in Helsinki on 17 March 1992, <www.unece.org/fileadmin/DAM/env/water/pdf/watercon.pdf> (accessed 3 April 2014); Protocol on Water and Health to the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Helsinki Protocol I), adopted on 17 June 1999, <www.unece.org/fileadmin/DAM/env/documents/2000/wat/mp.wat.2000.1.2.pdf> (accessed 3 April 2014); Protocol on Civil Liability and Compensation for Damage Caused by the Transboundary Effects of Industrial Accidents on Transboundary Waters to the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes and to the 1992 Convention on the Transboundary Effects of Industrial Accidents (Helsinki Protocol II), adopted on 21 May 2003, <www.unece.org/fileadmin/DAM/env/civil-liability/documents/protocol.e.pdf> (accessed 3 April 2014); International Law Commission Draft Articles on the Law of Transboundary Aquifers, adopted on 8 May 2008.

10 World Bank Operational Policies, <<http://web.worldbank.org/WBSITE/EXTERNAL/PROJECTS/EXTPOLICIES/EXTOPMANUAL/0,,menuPK:4564185~pagePK:64719906~piPK:64710996~theSitePK:502184,00.html>> (accessed 14 April 2014); World Bank Group, *Water Resources Sector Strategy: Strategic Directions for World Bank Engagement*, 2004, <<http://water.worldbank.org/publications/water-resources-sector-strategy-strategic-directions-world-bank-engagement>> (accessed 7 April 2014); World Bank Group, *Implementation Progress Report of the Water Sector Strategy: Sustaining Water for All in a Changing Climate*, 2010, <<http://water.worldbank.org/publications/sustaining-water-all-changing-climate-world-bank-group-implementation-progress-report>> (accessed 7 April 2014).

11 See, inter alia, R Urueña, ‘International Trade Law and Fragmentation in Water Regulation’, 2009 *US-China Law Review* 6, p. 50.

12 CESCR General Comment 15 (2002), ‘The Right to Water (Arts. 11 and 12 of the International Covenant on Economic, Social and Cultural Rights)’, UN Doc. E/C.12/2002/11, 20 January 2003 (hereinafter General Comment 15); United Nations Millennium Declaration, General Assembly Resolution 55/2, adopted on 8 September 2000, <www.un.org/millennium/declaration/ares552e.htm> (last visited 7 April 2014). See also the European Charter on Water Resources, Para. 5, adopted by the Committee of Ministers of the Council of Europe, Recommendation (2001)14, 17 October 2001; Art. 14(2) of the 1979 Convention on the Elimination of all Forms of Discrimination Against Women (CEDAW), adopted 16 December 1979, in force 3 September 1981; and Art. 24(2) of the 1989 Convention on the Rights of the

law these dimensions are addressed in a more integral manner. Both the European Water Framework Directive (WFD)¹³ and the Dutch Water Act (WA),¹⁴ for instance, contain elements that can be placed in all three dimensions.¹⁵

The horizontally fragmented nature of water law implies that, on the one hand, there is and there can be overlap between these dimensions, and that, on the other hand, these dimensions have adopted and can adopt separate rules with a focus on the particular water feature they address.¹⁶ For instance, the international treaties in the environmental dimensions address state relationships with a focus on the protection of the rivers and river basins,¹⁷ which are regarded as *public goods*. The international rules in the economic dimension primarily focus on economic issues, and water, accordingly, is often and mainly seen here as an *economic good*.¹⁸ Nevertheless, the World Bank's documents indicate that there has been, although implicitly, a shift from regarding water as an economic good¹⁹ to water as a public good (or sometimes *regional public good*)²⁰ in the World Bank's approach. Finally, the social dimension explicitly deals with water as a human right or as a source essential for development, although with a focus on the need to protect the environment. In this dimension water is regarded as a *public good*, more specifically as a *social and cultural good*.²¹ In a similar manner, the sub-regional or river basin level also focuses mainly on the environmental dimension of water, incorporating some social justice features, while hardly embedding the economic dimension of water. In the Danube River Basin, for instance, water is also characterised as a public good. Also in Europe and the Netherlands, water is seen as a public good. The first consideration of the Preamble of the WFD mentions water as a 'common heritage'.²² In the Netherlands (surface) water is traditionally considered a 'res communes omnium', which as a rule cannot be privately owned²³ and is subject to use by all.²⁴

Accordingly, these horizontal dimensions at the different levels regard water as a public good, which implies that water is generally seen as 'a commodity the benefit from which is shared by the public as a whole'.²⁵ In these general terms, not only water, but also water safety – the protection from water – and other 'water services', such as waste-water purification, could be regarded as a public good.²⁶ Moreover, water can – in some circumstances – also be defined as a *global public good*. According to the definition of

Child, adopted 20 November 1989, in force 2 September 1990. Last but not least, see also the conferences leading up to and following the adoption of the Millennium Development Goals (MDGs): the 1977 United Nations Water Conference, the 1992 United Nations Conference on Environment and Development, the 1994 United Nations International Conference on Population and Development, the 2002 Johannesburg Declaration and Plan of Implementation, and the 2005 World Summit Outcome.

13 Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy, OJ L 327, 22.12.2000, pp. 1-73.

14 See *Dutch Bulletin of Acts, Orders and Decrees (Staatsblad)* 2009, 490.

15 Although by far the main part of the WFD is concerned with the environmental dimension of water, it also mentions water pricing (economic dimension) and considers this to be an instrument for achieving better water quality. As another example, the stressing of public participation in goal-setting is evidently an exponent of the social dimension. The Dutch Water Act, at the national level, inter alia addresses water safety (social dimension), fresh water supply (economic dimension) and water quality/ecology (environmental dimension) in an explicitly integral way. See H.F.M.W. van Rijswijk & H.J.M. Havekes, *European and Dutch water law*, 2012, especially Chapter 5.

16 For a discussion on linking the ecological cluster with the social justice cluster, at least as far as the access to freshwater is concerned, see K. Bourquain, *Freshwater Access from a Human Rights Perspective: A Challenge to International Water and Human Rights Law*, 2008, pp. 206-208. See also Consideration 24 of the Preamble to the WFD.

17 See Urueña 2009, supra note 11.

18 See Ambrus 2013, supra note 1, pp. 33-34 and pp. 38-40.

19 See, inter alia, Gupta et al. 2010, supra note 7, p. 299.

20 'As water transcends political boundaries, it becomes a *regional public good* for which collective action can secure sustainable win-win benefits.' See World Bank Group, *Implementation Progress Report of the Water Resource Sector Strategy: Sustaining Water for All in a Changing Climate*, 2010, p. 39 (emphasis added).

21 See General Comment 15, supra note 12, Para. 11.

22 Consideration 1 states: 'Water is not a commercial product like any other but, rather, a heritage which must be protected, defended and treated as such.'

23 See Art. 5:20(1)(d) of the Dutch Civil Code. See also H.K. Gilissen et al., 'De verdeling van zoet water als normatief vraagstuk', 2013 *Water Governance*, no. 3, p. 21.

24 See J.J.H. van Kempen, *Interstatelijke civiele sancties wegens grensoverschrijdende milieuvuiling – Hindernissen en kansen*, 2007, p. 20.

25 See A.I. Ogus, *Regulation: Legal Form and Economic Theory*, 2004, p. 33.

26 See, for instance, Ogus 2004, supra note 25, p. 33; and R. Baldwin et al., *Understanding Regulation – Theory, Strategy, and Practice*, 2012, p. 20. Both works refer to security and defence services as examples of 'pure public goods'. See also Consideration 15 of the Preamble to the European Water Framework Directive, which states that the supply of water is a service of general interest, indicating that the general public as a whole benefits from it.

Kaul, Grunberg and Stern, '[o]f particular importance is the question of who should be the beneficiaries – the *publicum* – of a public good in order for it to qualify as global.'²⁷ In their view:

'[A] pure global public good is marked by universality – that is, it benefits all countries, people and generations. An impure global public good would tend towards universality in that it would benefit more than one group of countries, and would not discriminate against any population segment or set of generations.'²⁸

The question whether or not water is a pure global public good might not need to be answered, as it is clear that it does benefit a broader group of states, people and generations at each level of governance.²⁹ Indeed, water is of global importance with regard to which all 'states have a duty to cooperate in developing and implementing effective legal regimes to address the transboundary dimension of the problem.'³⁰ It also 'includes an inter-generational dimension that considers the use and conservation of the matter concerned in a long-term perspective,'³¹ and – last but not least – 'the public has a critical interest in water.'³² In addition to being a (global) public good, it moreover has been argued that water should be seen as a *common heritage*³³ or *common concern of humankind*,³⁴ or *public commodity*.³⁵

In conclusion, one could argue that irrespective of the specific terms used to describe the public nature of water, they all refer to the 'common interest' that is inherent in water and they all aim to envisage a regime that could provide appropriate protection for such a special 'good'. Accordingly, water can be described as a 'global public good', emphasising the universal character of the common interests in water and water services.

2.3. Public values in water law

2.3.1. Public values in general

Public goods are intrinsically linked to public values. Because water is so essential for life on earth, people attach many values to it. Admittedly, many definitions and many synonyms exist for 'public values'. Moreover, different terms might also be associated with 'public values', which, however, cover distinct issues.³⁶ All in all, this article does not aim to give an all-decisive definition. Instead, a working definition will be devised that relates closely to the most commonly used concepts.

The term 'public values' incorporates two aspects: what is *public* and what are *values*? First, what makes a value *public*? In this regard Bozeman's definition deserves particular attention. Bozeman aims to define the 'publicness' of values as follows:

'A society's "public values" are those providing normative consensus about (a) the rights, benefits and prerogatives to which citizens should (and should not) be entitled; (b) the obligations of citizens to society, the state, and one another; and (c) the principles on which the governments and policies should be based.'³⁷

27 See I. Kaul et al., 'Defining Global Public Goods', in I. Kaul et al. (eds.), *Global Public Goods*, 1999, p. 9.

28 Ibid., p. 11.

29 The broadness of this group differs per water body. Naturally, water *in general* is beneficial to all human beings. However, the water in the river Rhine or in lake Balaton, for instance, is beneficial to a much smaller group of people.

30 See P. Cullet, 'Water Law in a Globalised World: the Need for a New Conceptual Framework', 2011 *Journal of Environmental Law* 23, no. 2, p. 244. Also see Considerations 23 and 35 of the Preamble to the European Water Framework Directive.

31 Ibid., p. 245.

32 See J.B.H. Thomson Jr., 'Water as a Public Commodity', 2011 *Marquette Law Review* 95, no. 1, p. 18.

33 See Van Rijswijk 2008, *supra* note 1, p. 13. The first consideration of the Preamble to the European Water Framework Directive states for instance, that 'water is not a commercial product like any other but, rather, a heritage which must be protected, defended and treated as such'.

34 See Cullet 2011, *supra* note 30, p. 244.

35 See Thomson 2011, *supra* note 32, p. 18.

36 See for instance the discussion on the concept of 'ideals': S. Taekema, *The Concept of Ideals in Legal Theory*, 2000, and W. van den Burg & S. Taekema (eds.), *The Importance of Ideals – Debating Their Relevance in Law, Morality, and Politics*, 2004.

37 See B. Bozeman, *Public Values and Public Interest – Counterbalancing Economic Individualism*, 2007, p. 13.

From this definition three main aspects of the ‘publicness’ of values can be discerned. First, it has been argued that ‘[f]or a value to be called “public”, there has to be a collectivity, an aggregation level that can benefit from the protection of this value.’³⁸ It is clear that this aspect is a sliding scale as there may be some debate about what a ‘collectivity’ is. For instance, if someone finds water valuable because he or she likes to look down in still ponds to admire his or her own reflection, this would probably make having a tranquil surface water at hand a private value. If, however, more people tend to find this valuable, the value becomes more public.³⁹ It may be clear that the more generally the value is formulated, the more people will agree on its importance, i.e. the more public the value becomes. Having water available, for instance, would be much more public a value, since *everyone* needs it at least to do *something* with it.

Second, it is of importance whose opinion should influence or be relevant to decision-making in terms of values. In this regard, Bozeman’s definition includes that a value is public when there is normative consensus within a society about ‘the rights, benefits, and prerogatives to which citizens should (and should not) be entitled’ and about ‘the obligations of citizens to society, the state and one another.’ This relates closely to the first part of the definition: it matters that ‘the public’ holds a certain value dear. The added value, however, is that the public should also somehow express consensus about ‘who gets what’ and about the conduct that can be expected from the people with regard to the value at stake. In order for the example mentioned above, ‘having water available’, to be considered a public value, it should also include some more concrete decisions about rights and conducts, such as ‘having enough water available for everyone’. As far as this aspect is concerned, public values represent a stable and non-volatile *communis opinio*, which could, of course, change over time and differ among societies, regions, and (political) circumstances.⁴⁰

Third, a value is public when it provides normative consensus in a society about ‘the principles on which governments and policies should be based.’⁴¹ Hence, it should not only be a value that is shared by the people and that guides their conduct, but it should also be a guiding principle or guideline for governance and lawmaking.⁴² It could, for instance, be a guiding principle for the government to ensure that all people have sufficient water. Importantly, if the first two criteria are fulfilled, often the third one will be too. If most people agree about something they hold valuable, and about what they are entitled to in relation to others, governments will soon deem it fit to ensure that this *communis opinio* is respected and reflected in their policy and law. Generally, this is only different if the *communis opinio* is about something trivial that needs no protection at a broader policy level, or if it concerns a value in an area where government authority is disputed for some reason.

Concerning the second aspect of defining public values, ‘values’ might be best defined by contrasting and comparing them with *virtues*.⁴³ The category of *virtues* concerns the broad and overarching concept of well-being, and could, very succinctly, be defined as ‘what is worth pursuing from some or someone’s perspective.’⁴⁴ Virtues can, of course, be of an individual nature (for instance happiness), but in this article the focus is on what is worth pursuing from a societal perspective. Peace, safety, financial stability, public health, and environmental protection could, for instance, be considered virtues from this perspective. These ‘public virtues’ generally imply government responsibility, and most of them, one way or the other, essentially underlie concrete policies as a generic ‘goal-setting mechanism’. So in this view, public virtues give direction to and provide for a thematic framework for law and policy-making.⁴⁵ Based on

38 See H. de Bruijn & W. Dicke, ‘Strategies for Safeguarding Public Values in Liberalized Utility Sectors’, 2006 *Public Administration* 84, no. 3, p. 719.

39 This also relates closely to the so-called *public trust doctrine* prevalent in the jurisprudence in the USA, in which public values are opposed to private interests. It is noteworthy that this doctrine has largely developed in relation to public *water* values (see, for instance, H. Ingram & C.R. Oggins, ‘The Public Trust Doctrine and Community Values in Water’, 1992 *Natural Resources Journal* 32, pp. 515-537).

40 See Bozeman 2007, supra note 37, p. 14 and p. 16.

41 Ibid., p. 13. It should be noted that in this article, the term ‘government’ is used in a broad sense, i.e. including authoritative actors on the international, the European, the regional and the national level.

42 It should be noted here, that public values are therefore at the basis of public norms (as in: rules of conduct).

43 It could be argued that (public) *virtues* closely relate to the concept of *moral ideals*. See Taekema 2000, supra note 36, pp. 8-10.

44 Likewise, Bozeman states that the public interest refers to ‘the outcomes best serving the long-run survival and well-being of a social collective construed as a “public”’. See Bozeman 2007, supra note 37, p. 12.

45 Sometimes public virtues are reflected in national constitutions, for example in Arts. 21 and 22 of the Dutch Constitution, which state that ‘[i]t shall be the concern of the authorities to keep the country habitable and to protect and improve the environment’ and that

this concept of public virtues, one could only reasonably expect that in a society *there is* law and policy on, for instance, public health, but *what* concrete aims this law and policy substantially pursue, from this perspective, remains unclear. What concrete level of public health, for instance, will be strived for, and through which ‘channels’ and by which means will this be ensured?

This is where public *values* come into play. Public values are respected in the interest of the public, with the aim to contribute to the achievement of some degree of societal well-being. As public virtues determine *what* is worth pursuing from a societal perspective, public values – from the same perspective – determine *how* these virtues should be pursued and, moreover, *how* these should substantially be given shape in concrete decision-making. From a societal perspective, for example, aiming to achieve a high level of environmental protection is a public virtue, which should, inter alia, be pursued by the government in a *transparent* manner: the public value in this case is transparency. Also the pursuit of a high level of public health could be considered a public virtue, which, inter alia, includes that anyone should be entitled to a *sufficient* quantity of *clean* water for personal use. In simple terms, the public virtue of a high level of public health can be achieved through the value of providing a sufficient amount of clean water. In conclusion, public values impose procedural and substantive requirements on government behaviour concerning the pursuit of a certain degree of societal well-being in order to qualify it as ‘legitimate’ from a perspective of societal morality.⁴⁶

Although the concrete public values might be up for debate, there actually is agreement that these include both *procedural* and *substantive* public values. The former category refers ‘to the way the public sector should act and to standards that the process of government action should meet.’⁴⁷ In this respect, reference could be made to the concept of ‘good governance’, as these principles can be seen as (mainly) procedural public values.⁴⁸ The category of substantive public values is more sector-specific and encompasses substantive standards that should be met in law and policy in order for them to be considered ‘legitimate’ from the perspective of societal morality. It has been noted, however, that there is no clear-cut distinction between procedural and substantive values and that they might overlap.⁴⁹ In addition, it can be argued that the one is not effective without the other, i.e. they are mutually dependent.⁵⁰ While procedural public values cannot exist in themselves (i.e. substantive aspects are necessary to shape the procedural values), respect for substantive values would be difficult to achieve without any procedural elements.

In light of the above considerations, the following working definition of ‘public values’ will be adopted for the purposes of the present analysis:

‘Public values are guiding principles or guidelines, which should – from a perspective of societal morality and in the interest of the public – be taken into consideration in political and legal decision-making.’⁵¹

2.3.2. Water-specific public values

Given this general concept of public values, how can we define which public values are specifically related to water? There is no question about water being essential for sustaining life on Earth.⁵² In this respect, Thomson states that ‘water is inherently public, and governments have a continuing obligation to ensure its effective management for *overall societal well-being*, including both *environmental protection* and

‘[t]he authorities shall take steps to promote the health of the population.’

46 See Bozeman 2007, supra note 37, p. 13.

47 See De Bruijn & Dicke 2006, supra note 38, p. 719.

48 See G.H. Addink, *Good Governance: Concept and Context*, forthcoming (expected 2014).

49 See De Bruijn & Dicke 2006, supra note 38, p. 719.

50 See Ambrus 2013, supra note 1.

51 One should not identify public values too rigorously with legal principles. Legal principles could be regarded as a special category of public values, not only being of moral societal importance, but also being legally enforceable. Accordingly, it can be argued that all legal principles could be regarded as public values, but not all public values are legal principles. Put differently, the main difference between these two is that the more general term ‘public values’ concerns values that *should be* taken into account, and legal principles refer to values that *must be* taken into account.

52 See Cullet 2011, supra note 30, p. 245.

essential *human* consumptive *needs*.⁵³ Here, Thomson, arguably, refers to public virtues, and more in particular to ‘public water virtues’. Water, in this view, is essential in any attempt to achieve at least some degree of environmental protection and human health. Both virtues are inherently interrelated, as the former cannot, at least not in the long term, be guaranteed without the latter. These virtues subsequently underlie concrete goals worth pursuing for the sake of overall societal well-being.⁵⁴ Public values, in turn, play an important role as framework guidelines for making legislative and policy decisions on defining these goals and the pursuit thereof.

In the literature on water law certain public values are mentioned. Often-cited public water values are, for instance, sufficiency, safety, quality, accessibility, affordability, and aesthetic beauty.⁵⁵ Others mention the continuity and quality of water services, and user and consumer protection as public values the government should safeguard, either directly or indirectly.⁵⁶ Moreover, also the precautionary principle, the principle of tackling environmental degradation at the source, and the principle that the costs of protective measures should be recovered from those who pollute or make a profit out of it are among the values most often mentioned.⁵⁷

Indeed, one could distinguish many public values related to water. Among these values, hierarchal links may and often do exist. For instance, water being affordable is, at least partly, instrumental to it being accessible. The three legal principles mentioned above are also instrumental to, for instance, achieving good water quality. And water being of good quality is in turn instrumental to the ‘water virtues’ of both human health and environmental protection. Although there is no room in this article to untangle the web of relationships between all public values related to water and to assign them to different ‘classes’ of public water values, it is assumed that they are all in some way directed at the overarching objective of reaching overall societal well-being. Instead of unravelling this web, the Figures 1 (general) and 2 (water-specific) below provide general insight into the relations as described above (especially see the two ‘layers’ at the top).

The fact that one value is instrumental to another does not mean that it is no longer a public value. At some point down the line of instrumentality,⁵⁸ some things, however, lose their property of being a public value and have simply become rules of conduct that exist for the benefit of some public value, given that they no longer meet the criteria of Bozeman’s definition. Another reason could be that such rules are no longer considered ‘values’, but norms. An example would be the legal prohibition to discharge substances into the surface water without a permit. Although this could be considered a rule that the public in general would agree with and that is the outcome of the public’s involvement through a legislative process at various levels of water law, it is not a ‘guiding principle’ that governments should adhere to and neither is it what would normally be considered a ‘value’ (see the bottom ‘layer’ in Figures 1 and 2).

53 See Thomson 2011, *supra* note 32, p. 19 (emphasis added).

54 These goals may range from highly general aims (for instance pursuing a high level of environmental protection) to very concrete and specific short-term policy objectives (for instance pursuing a specific water quality standard within a certain timeframe). Van Rijswijk also argued that ‘[h]ealth and well-being of human have been the motive for environmental and water protection for a long time and it is for the same reason why economic development often prevails over nature protection. The past decades have seen more attention being devoted to nature as an autonomous value worthy of protection.’ See Van Rijswijk 2008, *supra* note 1, p. 13.

55 See, for instance, General Comment 15, *supra* note 12.

56 See De Bruijn & Dicke 2006, *supra* note 38, p. 719.

57 Almost everyone finds these principles of value: society as a whole (often through politics) wants to have a say in determining the outcome in terms of specific rights and rules of conduct, and governments use them as guiding principles for their law-making and water policy.

58 When moving away from the overarching value of overall societal well-being.

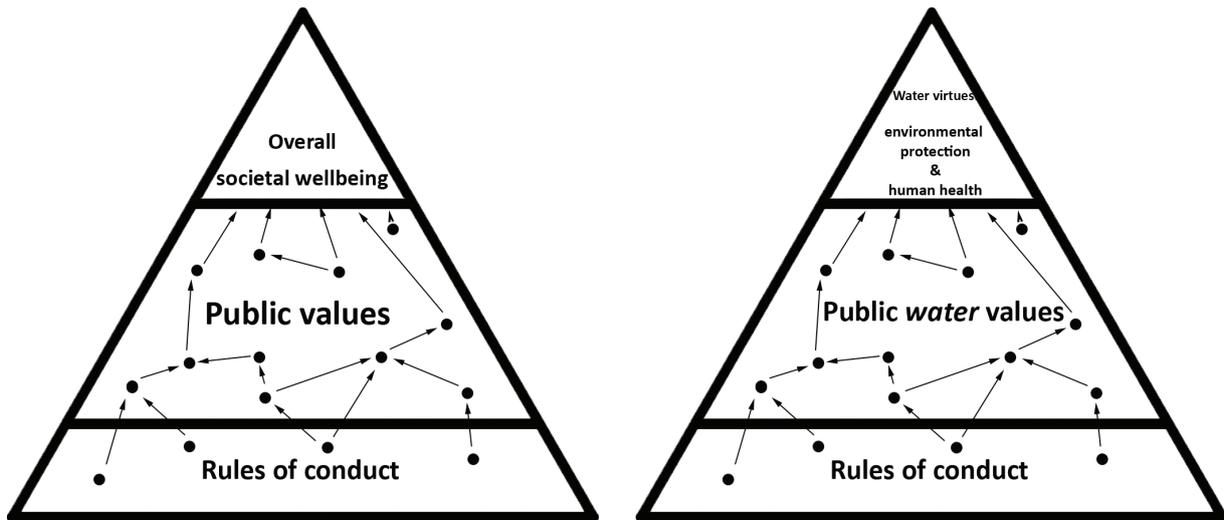


Figure 1

Figure 2

The analysis in Section 3 will only look at public values and is concerned with the rules of conduct only to the extent to which they serve to discover the underlying public values. In addition, this article focuses at public values in *water law*. This does, however, *not* mean that values that are incorporated in water law, but are also generally applicable to other policy areas, will be disregarded. For instance, broadly applicable values, such as the precautionary principle and efficiency, are discussed. However, certain procedural public values such as subsidiarity and proportionality are not.

2.4. Identifying public water values: methodology

Until now, literature has not provided for an extensive and integral assessment of public values in water law at the international, European, sub-regional and domestic level.⁵⁹ For this reason, the main purpose of this contribution is to identify these public values based on a comparative assessment of the levels mentioned. These public values – as guiding principles for governments to base their laws and policies on – can be explicitly or implicitly embedded in public law (international treaties, primary/secondary EU legislation, domestic constitutions, or Acts of Parliament).⁶⁰ Hence, the methodology used is an in-depth analysis of a selection of relevant legal provisions with regard to each level of water law. As indicated, in this search for public values, not only the explicitly mentioned public values are to be identified, but also those that are at the basis of concrete rules of conduct. These values are to be untangled from these concrete rules, as indicated in explanatory notes and documents.

Every candidate public value has been tested on whether 1) it fits the working definition of this paper and hence if it is truly a public value, and 2) if it sufficiently relates to ‘water’ to be called a ‘public water value’. Next, the water-specific public values incorporated in the law at the different levels have been compared across the scale in order to assess whether and to what extent there is substantive fragmentation in terms of the protection of public values.⁶¹ This involves finding corresponding values at the various levels in order to conclude if a level shows omissions and/or differences compared to other levels with regard to protecting specific public values. It should be noted that it is important at this point to check if the same public value might be protected under a different name at the various levels, or if a public value is protected without it being mentioned (values can be ‘hidden’ in the law), or if values that are instrumental to another value *are* explicitly protected.

59 Supra note 1.

60 See Bozeman 2007, supra note 37, p. 15 and p. 16.

61 See Table 1.

3. Public values at different levels of water law

This section traces various public values incorporated at different levels of water law. The public values will be identified through a cross-scale comparison aiming to single out corresponding values as well as differences across the four levels of water law discussed in this article.

3.1. Relevant legal instruments

The two dimensions of water law and governance addressed in this paper are the social and the environmental ones. While at the international level these can be clearly distinguished,⁶² as indicated above, this is less clearly so at the other levels. This section introduces the legal instruments that address these dimensions at the various levels, which form the basis of the cross-scale comparison.

As explained above, the social dimension of water law focuses on the human right to water and development. The most relevant instruments at the international level⁶³ are the following: General Comment 15 of the Committee on Economic, Social and Cultural Rights (CESCR) on the human right to water,⁶⁴ General Assembly resolution on the human right to water and sanitation,⁶⁵ and the United Nations Millennium Declaration⁶⁶ as well as the documents resulting from the conferences leading up to⁶⁷ and following⁶⁸ the adoption of these Millennium Development Goals (MDGs). 2003 is an important benchmark for this dimension, being the year that the CESCR adopted its General Comment 15 in which the human right to water as an autonomous right was established.⁶⁹

The environmental dimension of water law and governance at the international level includes the following main instruments:⁷⁰ Convention on the Law of the Non-Navigational Uses of International Watercourses (1997 Convention)⁷¹ (although not in force yet), the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Helsinki Convention),⁷² its two Protocols (Helsinki Protocol I⁷³ and Helsinki Protocol II),⁷⁴ and the 2008 International Law Commission (ILC) Draft Articles on the Law of Transboundary Aquifers (which to a great extent follow the 1997 UN Watercourse Convention).⁷⁵

At the European level, the following instruments can be highlighted. Before the entry into force of the European Water Framework Directive in the year 2000, European water law was a patchwork of different types of directives, with little mutual coherence. For each type of water usage, a specific directive existed. The WFD marked a great change in this sectoral approach by integrating many directives and

62 For an exploration, although from a very different perspective, of certain aspects of public water values on which this paper relies see Ambrus 2013, *supra* note 1.

63 See also the European Charter on Water Resources, Para. 5, adopted by the Committee of Ministers of the Council of Europe, Recommendation (2001)14, 17 October 2001; Art. 14(2) of the 1979 Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), adopted 16 December 1979, in force 3 September 1981; and Art. 24(2) of the 1989 Convention on the Rights of the Child, adopted 20 November 1989, in force 2 September 1990. CEDAW perceives the right to water as part of the right to enjoy adequate living conditions for women living in rural areas; the Convention on the Rights of the Child as part of the right to health.

64 General Comment 15, *supra* note 12.

65 General Assembly Resolution 64/292, 'The Human Right to Water and Sanitation', A/RES/64/292, 28 July 2010, <http://www.un.org/en/ga/search/view_doc.asp?symbol=A/RES/64/292> (last visited 7 April 2014) (hereinafter GA Human right to water and sanitation).

66 General Assembly Resolution 55/2, United Nations Millennium Declaration, 8 September 2000, <<http://www.un.org/millennium/declaration/ares552e.htm>> (last visited 7 April 2014) (hereinafter GA Millennium Declaration).

67 The 1977 United Nations Water Conference, the 1992 United Nations Conference on Environment and Development, and the 1994 United Nations International Conference on Population and Development.

68 The 2002 Johannesburg Declaration and Plan of Implementation and the 2005 World Summit Outcome.

69 See also M. Ambrus, 'The Right to Water', 2014 *International Community Law Review* (forthcoming).

70 In addition to these instruments several transboundary river treaties have also been concluded – both bilateral and multilateral.

71 *Supra* note 9.

72 *Supra* note 9.

73 Protocol on Water and Health to the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes, adopted on 17 June 1999, <<http://www.unece.org/fileadmin/DAM/env/documents/2000/wat/mp.wat.2000.1.e.pdf>> (last visited 7 April 2014).

74 Protocol on Civil Liability and Compensation for Damage Caused by the Transboundary Effects of Industrial Accidents on Transboundary Waters to the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes and to the 1992 Convention on the Transboundary Effects of Industrial Accidents, adopted on 21 May 2003, <http://www.unece.org/fileadmin/DAM/env/civil-liability/documents/protocol_e.pdf> (last visited 7 April 2014).

75 *Supra* note 9.

amending others, thus aiming at a more transparent, effective and coherent European water law.⁷⁶ By the end of 2013, only a small number of European water directives remain.⁷⁷

European water law is situated mainly in the environmental dimension.⁷⁸ Besides the specific directives addressing water-related values, the Treaty on the Functioning of the European Union (TFEU), which enshrines important public values, should also be mentioned. Within this dimension, a distinction can be made between water quality, water safety⁷⁹ and water quantity issues.⁸⁰ By far most of the European directives deal with water quality issues.⁸¹ The WFD itself forms the core of current European water quality law. The Groundwater Directive⁸² and the Directive on Priority Substances⁸³ replace former directives⁸⁴ and both now function as daughter directives to the WFD. These two Directives contain specific quality standards to further elaborate the environmental objectives of the WFD for groundwater and surface water respectively. In addition to these directives, European water quality law also encompasses the Drinking Water Directive (DWD),⁸⁵ the Bathing Water Directive,⁸⁶ the Nitrates Directive⁸⁷ and an Urban Waste Water Directive.⁸⁸ In contrast to the multitude of directives regarding water quality law, the protection against flooding is regulated at the European level in only one directive: the Floods Directive (FD).⁸⁹ Although it is one of the aims of the WFD to integrate all aspects of water management, water quantity is barely present as a separate element in European law.⁹⁰

The 'watercourse'⁹¹ is generally considered the basic or natural unit of water governance. Often, these watercourses are international, for which reason law and governance at the sub-regional level are of utmost importance.⁹² Admittedly, this perspective on watercourses primarily focuses on water as an

76 See Consideration 17 of the WFD's Preamble.

77 The Shellfish Water Directive (Directive 2006/113/EC of the European Parliament and of the Council of 12 December 2006 on the quality required of shellfish waters, OJ L 376, 27.12.2006, pp. 14-20) and the Freshwater Fish Directive (Directive 2006/44/EC of the European Parliament and of the Council of 6 September 2006 on the quality of fresh waters needing protection or improvement in order to support fish life, OJ L 264, 25.9.2006, pp. 20-31) were repealed by the end of 2013.

78 This can, for instance, be illustrated by the fact that all the relevant legislation at the European level is drafted and enforced by the Directorate-General for the Environment of the European Commission. Furthermore, this evidently follows from the contents of the legislation. In addition, it should be noted that Consideration 16 of the WFD's Preamble indicates that the Directive should provide a basis for further integration with the other two dimensions covered in this article (specifically mentioning the policy areas of energy, transport, agriculture, fisheries, regional policy and tourism). Consideration 17 mentions another link with the economic dimension by stating that protection of water status will provide economic benefits by contributing towards the protection of fish populations.

79 Water safety is approached as the protection against floods. That this is a distinctive aspect of water law can be seen in Consideration 4 of the Preamble of the Floods Directive.

80 Water quantity is approached as the protection against water scarcity and droughts. See below.

81 See Van Kempen 2012, *supra* note 1, p. 22.

82 Directive 2006/118/EC of the European Parliament and of the Council of 12 December 2006 on the protection of groundwater against pollution and deterioration, OJ L 372, 27.12.2006, pp. 19-31.

83 Directive 2008/105/EC of the European Parliament and of the Council of 16 December 2008 on environmental quality standards in the field of water policy, OJ L 348, 24.12.2008, pp. 84-97.

84 Directives 80/68/EEC, 76/464/EEC, 82/176/EEC, 83/513/EEC, 84/156/EEC, 84/491/EEC and 86/280/EEC.

85 Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption, OJ L 330, 5.12.1998, pp. 32-54.

86 Directive 2006/7/EC of the European Parliament and of the Council of 15 February 2006 concerning the management of bathing water quality, OJ L 064, 04.03.2006, pp. 37-51.

87 Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources, OJ L 375, 31/12/1991, pp. 1-8.

88 Council Directive 91/271/EEC of 21 May 1991 concerning urban waste-water treatment, OJ L 135, 30.5.1991, pp. 40-52. In addition to this, there are also other European directives that deal with water quality in a more indirect way but that are primarily meant to regulate other policy areas. The most prominent examples are the Birds Directive, the Habitats Directive and the Directive on Industrial Emissions. Council Directive 79/409/EEC of 2 April 1979 on the conservation of wild birds, OJ L 103, 25.04.1979, pp. 1-18; Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora, OJ L 206, 22.07.1992, pp. 7-50; Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions, OJ L 334, 17.12.2010, pp. 17-119 (the successor of the IPPC Directive).

89 Directive 2007/60/EC of the European Parliament and of the Council of 23 October 2007 on the assessment and management of flood risks, OJ L 288, 06.11.2007, pp. 27-34. Consideration 4 of the Preamble of the Floods Directive clearly states that flood protection is a separate dimension of European water law in addition to water quality law.

90 The WFD's daughter directives will not be further analysed since they do not protect public values other than those already protected in the WFD. The other water quality directives will not be covered either due to space constraints. An exception is made for the Drinking Water Directive, because an analysis of this Directive allows a better comparison with the other levels.

91 For a definition of 'watercourse' see Art. 2(a) of the 1997 UN Convention. Pursuant to this Article, a 'watercourse' is 'a system of surface waters and groundwaters constituting by virtue of their physical relationship a *unitary whole* and normally flowing into a common terminus.'

92 See M.A. Giordano & A.T. Wolf, 'Incorporating Equity into International Water Agreements', 2001 *Social Justice Research* 14, no. 4, p. 355; D.A. Caponera, 'Patterns of Cooperation in International Water Law: Principles and Institutions', 1985 *Natural Resources Journal* 25, p. 564; M. Muller, 'Polycentric Governance: Water Management in South Africa', 2012 *Management, Procurement and Law* 165, no. 3, p. 194.

environmental unit, but traces of the other dimensions of water can also be detected at this level, too. In the Danube River Basin there are two main treaties regulating the ‘use’ of the Danube: the Danube River Protection Convention (DRPC)⁹³ and the Danube Navigation Convention (DNC).⁹⁴ Here the focus will be placed on the former, and the latter will not be addressed due to its very specific purpose to regulate the navigational use of the river. The DRPC established the Danube Commission⁹⁵ in order to assist states in implementing the Convention (and later on to provide a platform for the implementation of the EU Water Framework Directive).⁹⁶

With the entry into force of the Water Act⁹⁷ (WA) in 2009 and the Drinking Water Act (DWA)⁹⁸ in 2011, Dutch water law and the organization of water management in the Netherlands underwent major changes.⁹⁹ In recent Dutch water management a rough distinction is made between the integral management of water systems (quality; ecology; quantity) and the more fragmented management of the ‘water chain’ (drinking water supply; sewerage; waste-water purification). This distinction is – although not that explicitly – also recognizable in the law. The WA integrates previously sectoral water legislation on, inter alia, water quality, water safety, waste-water purification, fresh water supply and ecology into one act. It, moreover, explicitly links water management with other policy domains, such as environmental protection and spatial planning.¹⁰⁰ Further legal integration of these and other policy domains lies ahead.¹⁰¹ The DWA provides modernized provisions on the production and supply of drinking water by drinking water companies.¹⁰² The Environmental Protection Act (EPA) enshrines provisions on the intake and transport of urban waste-water (sewerage).¹⁰³ This ‘body’ of Dutch water law is mainly based on two general provisions of the Dutch Constitution (Articles 21 and 22) and implements European water law into the Dutch legal system.

A thorough analysis of these legal instruments has produced the following table:

93 Convention on Cooperation for the Protection and Sustainable Use of the Danube River, adopted on 29 June 1994, entered into force in October 1998.

94 Convention regarding the Regime of Navigation on the Danube, adopted on 18 August 1948, entered into force on 11 May 1949.

95 See, for instance, International Commission for the Protection of the Danube River (hereinafter ICPDR), *Annual Report on the Activities of the ICPDR in 2000*, p. 3; see also ICPDR, *About us*, <www.icpdr.org/main/icpdr/about-us> (last visited 7 April 2014). ‘It is both a forum to allow its contracting parties to coordinate the implementation of the DRPC and a platform to review the progress they make.’ ICPDR, *Frequently Asked Questions International Commission Protection Danube River*, <<http://www.icpdr.org/main/10-frequently-asked-questions-faqs-about-icpdr>> (last visited 14 April 2014).

96 In addition, ‘[i]n 2007, the ICPDR also took responsibility for coordinating the implementation of the EU Floods Directive in the Danube River Basin.’ ICPDR, *About us*, <www.icpdr.org/main/icpdr/about-us> (last visited 7 April 2014).

97 See *Dutch Bulletin of Acts, Orders and Decrees (Staatsblad)* 2009, 490.

98 See *Dutch Bulletin of Acts, Orders and Decrees (Staatsblad)* 2009, 370.

99 For a thorough overview of recent developments in Dutch water law, see Van Rijswijk & Havekes 2012, *supra* note 15, Chapters 4 and 5.

100 See, for instance, F.A.G. Groothuijse, *Water weren – Het publiekrechtelijke instrumentarium voor de aanpassing en bescherming van watersystemen ter voorkoming en beperking van wateroverlast en overstromingen*, 2009; and H.K. Gilissen & H.F.M.W. van Rijswijk, *Water en ruimte – De bescherming van watersysteembelangen in het ruimtelijk spoor*, 2009.

101 The entry into force of the (heavily debated) Environmental Planning Act is planned for 2018. Until now, only a so-called ‘test version’ (‘toetsversie’) has been published for evaluation. See J.H.G. van den Broek, *Omgevingswet – Tekst & Toelichting*, 2013.

102 See in general Van Rijswijk & Havekes 2012, *supra* note 15, pp. 399-405.

103 *Ibid.*, pp. 385-389.

Table 1 Public water values at four institutional levels

		International level	European level	Sub-regional level	Domestic level
General public water values	Transparency	x	x	x	x
	Participation	x	x	x	x
	Accountability	x	x	x	x
	Prevention/Precaution	x	x	x	x
	Sustainability	x	x	x	x
	No deterioration		x		x
	Rectify at source		x		x
	Polluter or user pays/cost recovery	x	x	x	x
	Sufficiency		x		x
	River basin approach	x	x	x	x
	Cooperation	x	x	x	x
	Control cross-border effects	x	x	x	x
	Integrity	x	x	x	x
	Efficiency	x	x		x
	Rationality/Equality/Equity*	x	x	x	x
Values pertaining to drinking water	Safety	x	x		x
	Affordability	x			x
	Sufficiency	x			x
	Adequacy	x			x
	Accessibility	x			x
	Continuity				x
	Fair pricing**				x
	Rational use				x

* This covers inter-generational, intra-generational and cross-border equality.

** This covers reasonable, non-discriminatory and transparent pricing, and is instrumental to the 'user pays' value.

This table is the result of an extensive multi-level analysis by the authors. It would not fit within the scope of this article to integrally and extensively discuss the outcomes of this analysis here. Hence, a more extensive report of the analysis can be found at the website of the Utrecht Centre for Water, Oceans and Sustainability Law.¹⁰⁴ Instead, a representative selection of both substantive and procedural public water values will be elaborated in further detail below. This selection follows the sequence of the values listed in the table above. First, the procedural values of transparency, participation and accountability will be discussed. Next, a selection of six substantive values pertaining to water management will be elaborated: prevention/precaution, sustainability, integrity, the river basin approach, the polluter pays/cost recovery principle, and the value of equality. The section concludes by discussing several values pertaining to drinking water that are also closely related to the human right to water.

104 See <www.uu.nl/ucwosl>.

3.2. Public water values

3.2.1. Transparency

At the international level, the legal documents relating to the social dimension of water law as well as to its environmental dimension include rules enhancing the transparency of decision-making. General Comment 15 explicitly mentions ‘the right to seek, receive and impart information concerning water issues’,¹⁰⁵ which reflects the need for ‘information accessibility’.¹⁰⁶ Related to information accessibility, although at a different level, is the need to exchange technical and scientific information relating to water law, policy and management among states.¹⁰⁷ This would enable capacity building and technical transfer across boundaries, also making information accessibility within the national boundaries more effective. These two ‘rules’ could be translated as the public value of transparency. Transparency is important both in the inter-state context and, in relation to individuals, also in the environmental dimension at the international level. As far as the former is concerned, the 1997 Convention expects states to regularly exchange data¹⁰⁸ and rely on notification-consultation procedures.¹⁰⁹ With regard to individuals the Helsinki Convention and its Protocol I impose the obligation upon states to provide the public with access to information¹¹⁰ and to raise awareness (with regard to water rights).¹¹¹

At the EU level both the WFD and the FD enshrine rules that aim to ensure transparency.¹¹² Article 15 of the WFD, for instance, obliges Member States to inform the European Commission of the goals they intend to achieve regarding the desired water quality, and of the means they intend to use in order to achieve these goals as well as the methods used to monitor their progress and the results of this monitoring.¹¹³ Article 14 obliges the Member States to also inform the public, since it is instrumental to the value of participation.¹¹⁴ According to the Preamble to the WFD, transparency is a necessity for the success of the WFD and of EU water policy in general.¹¹⁵

Also in water law at the sub-regional level, the procedural public value of transparency is clearly embedded. In the Convention on the Protection of the Danube River Basin Articles 12 and 14 enshrine norms with regard to this value. Article 12 of the Convention lays down rules on the exchange of information among the contracting parties, as Article 14 holds rules on providing information to the public.

In the Netherlands, first of all Article 110 of the Dutch Constitution explicitly establishes a general right of public access to information. In relation to water-specific regulations, the objectives of the WA are at the basis of government responsibilities in Dutch water management. Regarding all responsibilities, strategic policy goals and operational provisions should for successive periods of six years be laid down in so-called water plans and management plans.¹¹⁶ These plans, *inter alia*, aim at informing the public in order to ensure transparency in water management. Also the EPA enshrines transparent decision-making. More concretely, for instance, every two years an official report is to be published on ‘the state of affairs’ of Dutch waste-water management.¹¹⁷ Moreover, the municipalities are obliged to lay down their policy on sewerage in so-called sewerage plans.¹¹⁸ Other authorities have to be actively involved in the planning process. Sewerage plans must be sent to all authorities involved in the planning process,

105 See General Comment 15, *supra* note 12, Para. 12(c)(iv).

106 An important aspect of information accessibility is that governments adopt water strategies in relation to which all the necessary information is provided. See General Comment 15, *supra* note 12, Paras. 37(f), 48 and 49. Moreover, states should inform the individuals in a timely manner about any proposed measure that might affect their human right to water. See General Comment 15, *supra* note 12, Para. 56.

107 See GA Human right to water and sanitation, *supra* note 65, Para. 2.

108 See Art. 9 of the 1997 Convention; Art. 8 of the 2008 Draft Articles. See also Arts. 6 and 12 of the Helsinki Convention.

109 See Arts. 11-17 of the 1997 Convention. See also Arts. 5 and 13(4) of the Helsinki Convention; Art. 9(4) of the Helsinki Protocol I.

110 See Art. 16 of the Helsinki Convention; Art. 10 of the Helsinki Protocol I.

111 See Art. 9(1) of the Helsinki Protocol I.

112 See Consideration 19 of the Preamble to the FD. Also see Arts. 7(5), 10 and 15 of the FD.

113 Art. 15 of the FD contains a similar obligation.

114 See Consideration 46 of the WFD. The value of participation is discussed in the next section.

115 See Considerations 14, 18, 30 and 46 of the WFD.

116 See Chapter 4 of the WA. See Van Rijswijk & Havekes 2012, *supra* note 15, pp. 215-223; and extensively Groothuijse 2009, *supra* note 100, pp. 75-126.

117 See Art. 10.35(1) and (2) of the EPA.

118 See Art. 4.22 of the EPA.

as well as to the Minister, and must also be published in a municipal newspaper.¹¹⁹ Finally, transparency is one of the core values underlying the DWA.¹²⁰ The DWA imposes obligations in this regard on water companies, which must secure the connection of consumers to the supply network and the actual supply under reasonable, transparent and non-discriminatory conditions.¹²¹

3.2.2. Participation

At the international level participation is secured in various ways. Pursuant to the General Comment individuals should also be able to influence the decision-making processes relating to their human right to water,¹²² i.e. they should be able to participate. Similarly to transparency, respect for participation is ensured for states and individuals at the international level concerning the environmental dimension of water. The 1997 Convention lays down the principle of equitable and reasonable participation of state parties,¹²³ the obligation to cooperate and establish joint mechanisms.¹²⁴ As to the relationship with individuals, the Helsinki Protocol I lays down that '[a]ccess to information and public participation in decision-making concerning water and health are needed, inter alia, in order to enhance the quality and the implementation of the decisions, to build public awareness of issues, to give the public the opportunity to express its concerns and to enable public authorities to take due account of such concerns.'¹²⁵ Moreover, the Protocol also requires the involvement of locals¹²⁶ and the creation of a platform for parties, where 'the public, private and voluntary sectors can make its contribution to improving water management for the purpose of preventing, controlling and reducing water-related disease.'¹²⁷

At the EU level, participation is also an explicitly mentioned value that found its way into the WFD as well as the FD. Article 14 of the WFD, for instance, obliges all Member States to encourage the active involvement of all interested parties in the implementation of the WFD. To this end, they shall inform the public of the procedure regarding the implementation and supply them with all the necessary substantive information. Member States are also obliged to offer the public ample opportunity to comment on their plans regarding this implementation. Article 10 of the FD includes a similar, albeit less detailed, obligation. According to the Preamble to the WFD, its success is dependent on this consultation and involvement of the public.¹²⁸

Also at the sub-regional level, the public value of participation is clearly embedded, as the contracting parties are expected to 'provide for coordinated or joint communication, warning and alarm systems in the basin-wide context'¹²⁹ and 'shall provide mutual assistance upon the request of other Contracting Parties'.¹³⁰

In the Netherlands, only the WA and the EPA include rules that can be related to participation. The WA contains provisions concerning cooperation with and consultation of other authorities, and also provisions on the participation of the public in, for instance, decision-making procedures concerning water plans and management plans. These should be interpreted as an invitation to all stakeholders (both public and private) to participate in the policy-making process, emphasizing the urge of cooperation and coordination in Dutch water management (which also ensures coherency and integrity). The WA and EPA both emphasize the need for cooperation between public actors in order to achieve higher levels of efficiency without a decrease in quality.¹³¹ The EPA has not, however, enshrined further provisions

119 See Art. 4.23(2) and (3) of the EPA.

120 See also Arts. 45 respectively 47 of the DWA.

121 See Art. 8 of the DWA.

122 See General Comment 15, supra note 12, Paras. 24 and 48.

123 See Art. 5 of the 1997 Convention.

124 For instance, Art. 8(2) of the 1997 Convention enshrines that '[i]n determining the manner of such cooperation, watercourse States may consider the establishment of joint mechanisms or commissions, as deemed necessary by them, to facilitate cooperation on relevant measures and procedures in the light of experience gained through cooperation in existing joint mechanisms and commissions in various regions.'

125 See Art. 5(j) of the Helsinki Protocol I.

126 See Art. 5(n) of the Helsinki Protocol I.

127 See Art. 4(5) of the Helsinki Protocol I.

128 See Consideration 14 of the Preamble to the WFD.

129 See Art. 16 of the DRPC.

130 See Art. 17 of the DRPC.

131 See *Kamerstukken II 2012/13*, 33 400 J, no. 11. Also see Art. 3.8 of the WA and Art. 4.23(1) of the EPA.

requiring the authorities to ensure public participation in the planning process; apparently public participation is seen as a value of minor importance in relation to policy-making concerning sewerage management. Like the EPA in relation to waste-water management, the DWA does not hold any provisions concerning public participation in policy and decision-making concerning the production, transport and distribution of drinking water.

3.2.3. Accountability

The last procedural value to be discussed here is accountability, including access to justice. Accountability can be ensured in various manners. At the international level, the General Comment expects states to establish monitoring mechanisms and impose penalties '[w]here water services (...) are operated or controlled by third parties' in order to ensure the protection of water rights.¹³² A closely related aspect is the need to set up 'remedies and recourse procedures'¹³³ and to ensure that '[a]ny persons or groups who have been denied their right to water should have access to effective judicial or other appropriate remedies at both national and international levels.'¹³⁴ In the environmental dimension of international water law ensuring accountability has been foreseen through, again, two types of norms: one focusing on inter-state relations and the other on individual-state relations. The first type of norms is somewhat vaguely formulated and includes the following: states are recommended to establish joint actions,¹³⁵ they are under the obligation to monitor the conditions of transboundary waters¹³⁶ and to carry out environment impact assessments.¹³⁷ Concerning the second type of norms, the Helsinki Protocol II requires states to establish civil liability mechanisms for damages 'caused by the transboundary effects of industrial accidents on transboundary waters.'¹³⁸ Last but not least, the 1997 Convention places an obligation on states to ensure cross-border access to justice without discrimination in case of transboundary harm.¹³⁹

Although accountability is not mentioned as a separate value in any European water directive, it is definitely implicitly present in the *system* of European law. The WFD contains very specific obligations (most importantly in Article 4). By European law, Member States are bound to meet these obligations and they can be held accountable if these obligations are not met.¹⁴⁰ In this sense, the aforementioned value of transparency can be seen as instrumental to this value, since it provides citizens and the European Commission with ample information to hold Member States accountable if the obligations are not met. It should be noted however, that the WFD does leave plenty of room for Member States to justify not fully meeting these obligations within the set deadline.

In the Danube River Basin certain obligations aim to advance accountability in different ways. Among these provisions the following can be highlighted: states 'shall report to the International Commission on basic issues required for the Commission to comply with its tasks',¹⁴¹ 'shall monitor the progress made in the implementation of the joint action programmes by establishing periodical progress reviews',¹⁴² and 'shall cooperate in the field of monitoring and assessment'.¹⁴³ As mentioned above, at this level there is a central organisation, which also gained in importance with regard to safeguarding accountability.

Finally, in the Netherlands the procedural public value of accountability is clearly embedded in legislation in the field of public health and environmental protection. The Dutch Constitution breathes a strong moral and general sense of liberty and equality, and it generally entitles the public to judicial review of government decisions.¹⁴⁴ Moreover, as mentioned before, water authorities according to the

132 General Comment 15, supra note 12, Para. 24.

133 General Comment 15, supra note 12, Para. 50.

134 General Comment 15, supra note 12, Para. 55. See also Para. 56.

135 See Art. 8(2) of the 1997 Convention.

136 See Art. 4 of the Helsinki Convention. See also Art. 15 of the Helsinki Protocol I, which establishes such an obligation in relation to diseases.

137 See Art. 3(1)(h) of the Helsinki Convention.

138 See Art. 1 of the Helsinki Protocol II.

139 See Art. 32 of the 1997 Convention.

140 Either by the European Commission, other Member States, or (in some circumstances) European citizens.

141 See Art. 10 of the DRPC.

142 See Art. 8 of the DRPC.

143 See Art. 9 of the DRPC.

144 See Art. 112(2) of the Dutch Constitution.

WA need to adopt water plans and management plans.¹⁴⁵ These plans, like the sewerage plans, function as accountability mechanisms towards other authorities and also towards the public.¹⁴⁶ Accountability is also one of the core values underlying the DWA. The drinking water companies, on a yearly basis, must report on their activities to the Minister. Subsequently, the Minister, also on a yearly basis, must report on the quality of the Dutch drinking water supply as such to both Houses of the States General, as well as to the public.¹⁴⁷

3.2.4. Prevention/precaution

Although strictly speaking, prevention and precaution are not *exactly* the same thing, the two values are very closely related.¹⁴⁸ They both refer to a future occurrence of environmental damage and they both aim to avoid this occurrence. For instance, Article 3(2)(e) of the Danube River Protection Convention speaks of the ‘precautionary prevention’ of accidents. Given their close relationship, both values are discussed here simultaneously as core values in water law.

At the international level, the precautionary principle is laid down in the Helsinki Convention.¹⁴⁹ At the EU level, Articles 191(2) and (3) of the Treaty on the Functioning of the European Union state that environmental (and hence water) policy should be of a precautionary and preventive nature. In secondary EU law, the Water Framework Directive¹⁵⁰ and the Drinking Water Directive¹⁵¹ mention both values, whereas the Floods Directive only mentions prevention.¹⁵² In the Danube River Basin the principles of prevention and precaution can be traced in various rules, too, which ‘constitute a basis for all measures aiming at the protection of the Danube River and of the waters within its catchment area.’¹⁵³ At the domestic level, prevention and, implicitly, precaution¹⁵⁴ (addressing both flooding, water nuisance and drought, and deterioration of water quality and ecology) can be discovered as values in Article 2.1 of the Water Act. Drinking water companies, moreover, have a legal duty of care to prevent drinking water sources from being polluted.¹⁵⁵ On the basis of the methodology presented above, at all institutional levels, prevention/precaution could be considered a substantive public water value.

3.2.5. Sustainability

Also sustainability is often mentioned as a core public value in water and environmental law.¹⁵⁶ At the international level, the value of sustainability is explicitly mentioned, for instance in General Comment 15 and the 1997 Convention.¹⁵⁷ Also in secondary EU law, this value is mentioned in the Water Framework

145 See Chapter 4 of the WA. See Van Rijswijk & Havekes 2012, *supra* note 15, pp. 215-223; and extensively Groothuijse 2009, *supra* note 100, pp. 75-126.

146 Buijze generally argues that accountability could never be successful without meeting transparency demands. See A.W.G.J. Buijze, *The Principle of Transparency in EU Law*, 2013.

147 See Arts. 43, 44, 45, and 47 of the DWA.

148 See, for instance, A. Trouwborst, ‘Prevention, precaution, logic and law – The relationship between the precautionary principle and the preventative principle in international law and associated questions’, 2009 *Erasmus Law Review* 2, no. 2, pp. 105-127. Here, the author argues that, at the international level, the precautionary principle encompasses that of prevention.

149 See Art. 2(5)(b) of the Helsinki Convention. See also Art. 5(a) of the Helsinki Protocol I.

150 See Considerations 39 and 40, Arts. 1(d), 1(e), 4(1)(b)(i), 10 and 11 of the WFD for the value of prevention. See Consideration 54 of the WFD for the value of precaution.

151 See Considerations 5 and 26 of the DWD for the value of prevention. See Consideration 13 of the DWD for the value of precaution.

152 See Consideration 13 and Art. 7(3) of the FD for the value of prevention.

153 See Art. 2(4) of the DRPC.

154 Gilissen states that Dutch water management authorities should embrace a precautionary approach in their policy and decision making by virtue of the more general principle of due care as codified in the Dutch General Administrative Law Act (GALA). See H.K. Gilissen, *Adaptatie aan klimaatverandering in het Nederlandse waterbeheer – Verantwoordelijkheden en aansprakelijkheid* (diss. Utrecht), 2013, pp. 135-137.

155 See Art. 7(2) of the DWA.

156 See, for instance, Van Rijswijk & Havekes 2012, *supra* note 15, pp. 79-83, and J.H. Jans & H.H.B. Vedder, *European Environmental Law*, 2008.

157 ‘To stop the unsustainable exploitation of water resources by developing water management strategies at the regional, national and local levels, which promote both equitable access and adequate supplies.’ See GA Millennium Declaration, *supra* note 66, Para. 23. ‘The manner of realization of the right to water must also be sustainable, ensuring that the right can be realized for present and future generations.’ See General Comment 15, *supra* note 12, Para. 11. See Art. 5(1) of the 1997 Convention.

Directive,¹⁵⁸ the Drinking Water Directive¹⁵⁹ and the Floods Directive.¹⁶⁰ The same counts for the sub-regional level, as in the Danube River Basin, one of the objectives enshrined in Article 2(1) of the DRPC is to achieve ‘the goals of a sustainable and equitable water management’.

At the domestic level, the value of sustainability is only explicitly mentioned in relation to drinking water: Article 2(1) and (2) of the DWA refer to the sustainable security and organization of the public drinking water supply as an ‘imperative reason of overriding public interest’. Although it was deliberately decided not to explicitly incorporate principles in the WA,¹⁶¹ the principle of sustainability may implicitly be found at the roots of the objectives of the WA as laid down in Article 2.1, as there is a close relation between the principle of sustainability and those of prevention and precaution. In conclusion, sustainability is another substantive public value that is clearly embedded in water law at the different institutional levels.

3.2.6. Integrality

Integrated water resource management proves to be another value in water law and governance.¹⁶² Although an important value, it found its way into legislation at the international level only in the Helsinki Protocol I,¹⁶³ earlier conventions do not mention this value.

At the EU level this value is omni-present: it is explicitly laid down in the WFD as an underlying public value.¹⁶⁴ It is indicated that water should be managed integrally, covering all its components and usages. Moreover, the WFD also strives to expand this approach to *all* policy areas dealing with water.¹⁶⁵ Also, the Floods Directive is based on the principle of integrality.¹⁶⁶ Parallel to the WFD and the FD, the DWD also recognizes the value of an integrated approach to water policy.¹⁶⁷

Although the DRPC does not explicitly mention the idea of integrated management, as an effect of its role in coordinating the implementation of the WFD, this value also entered this level of water law. In particular, the International Commission for the Protection of the Danube River (ICPDR) explains that ‘[t]he WFD brings major changes in water management practices. Most importantly, it introduces the river basin approach for the development of integrated and coordinated river basin management plans for all European river systems.’¹⁶⁸ Accordingly, the Commission tries to incorporate this value in its working method.

At the domestic level the objectives of the WA as enshrined in Article 2.1 of the WA clearly reflect the need for integrated water management. These objectives are a) to prevent and, where necessary, to limit flooding, water nuisance and water shortage, while *simultaneously* b) protecting and improving the chemical and ecological status of water systems, and c) allowing water systems to fulfil their societal functions. As there is no formal legal order of objectives, these should explicitly be executed in an integral and conjunctive way.¹⁶⁹ Coherency and integrality, in turn, are claimed to be a necessity for – or to be instrumental to – effectiveness and efficiency in Dutch water management.¹⁷⁰

158 See Considerations 1, 23, 28, 38 and 41. See also Art. 1(b) and (e) of the WFD.

159 See Consideration 5 of the DWD.

160 See Considerations 17 and 22. Also see Art. 7(3) of the FD.

161 See Van Rijswijk & Havekes 2012, supra note 15, pp. 81-83; and Van Rijswijk 2008, supra note 1, pp. 20-21.

162 S. Reinhard & H. Folmer (eds.), *Water Policy in the Netherlands, Integrated Management in a Densely Populated Delta. Issues in water resource policy*, 2009. Also see Nehmelman et al. 2013, supra note 1, pp. 10-11.

163 See Art. 4(1) of the Helsinki Protocol I: ‘[t]he Parties shall take all appropriate measures to prevent, control and reduce water-related disease within a framework of integrated water-management system aimed at sustainable use of water resources, ambient water quality which does not endanger human health, and protection of water ecosystems.’ See also Art. 5(j) Protocol I: ‘[w]ater resources should, as far as possible, be managed in an integrated manner on the basis of catchment areas, with the aims of linking social and economic development to the protection of natural ecosystems and of relating water-resource management to regulatory measures concerning other environmental mediums.’

164 See Considerations 9, 16, 17, 18, 24, 26, 34, 38, 43 (by using an economic approach) and 47 of the WFD. See also (explicitly) Art. 9 of the WFD. 165 Explicitly see Consideration 16 of the WFD.

166 See Considerations 13, 14, 17 (explicitly) and 22 (also explicitly) of the FD. Also see Art. 9 of the FD.

167 See Consideration 11 of the DWD. This value is also present in the fact that exemptions are possible, see Consideration 29 of the DWD.

168 ICPDR, *Annual Report on the Activities of the ICDPR in 2005* (Vienna, 2005), p. 14 (emphasis added).

169 See H.J.M. Havekes & P. de Putter, *Wegwijzer Waterwet*, 2014, p. 46.

170 See *Kamerstukken II 2004/05*, 29 694, no. 1. Also see the preamble of the Dutch Water Act.

3.2.7. River basin approach

The next important value is the so-called *river basin approach*, which is closely related to the previous value of integrated water resources management.¹⁷¹ This means that the river basin is chosen as the most appropriate unit to manage water, reflecting the insight that water does not follow national borders. This value relies on the idea that a river basin constitutes a coherent unit, and thus the water in its catchment area should be managed based on this unit.

At the international level, this approach is implicitly present in, for instance, the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Helsinki Convention).¹⁷²

EU water law is explicitly based on this approach.¹⁷³ This approach is one of the most important guidelines for water policy in the Member States. The river basin approach requires cooperation between Member States,¹⁷⁴ and establishes common definitions,¹⁷⁵ whilst taking diversity between Member States into account.¹⁷⁶ This approach can also be discovered in the rule that cross-border pollution should be controlled¹⁷⁷ as well as in the principle of equitable use.¹⁷⁸ Implicitly, the FD is also based on the river basin approach; this becomes clear by the many references to the WFD and by the multitude of occurrences of the river basin as the unit of water management.

While the DRPC does not explicitly mention the value of a river basin approach, the very existence of this level of water law and governance relies on this value. The Convention aims to adopt policies that take into account the whole basin.

Finally, the river basin approach is fully incorporated in Dutch water law, thus implementing the EU WFD.¹⁷⁹ This approach has been explicitly enshrined in Article 1.2 of the WA. Four river basin districts – those of the Ems, the Meuse, the Rhine and the Scheldt – are situated on the Dutch territory. Moreover, the WA adopts an integrated water system approach,¹⁸⁰ which stipulates that bodies of surface water and groundwater, as well as storage areas, flood defence structures and ancillary structures should be managed integrally. The management of one or more individual water systems or parts thereof is directed at achieving the objectives referred to in Article 2.1 of the WA, as discussed above.¹⁸¹

3.2.8. Polluter pays/cost recovery

Another important public value is the polluter pays principle, or – more generally – the cost recovery principle. This value is present at each level of water law and governance addressed in this article. The Helsinki Convention lays down the polluter pays principle in Article 2(5)(b).¹⁸²

At the EU level, this public value is laid down in Article 191(2) stating that the costs of protective measures should be recovered from those who pollute or profit.¹⁸³ The WFD also enshrines this value specifically in relation to water; the principle that the polluter should pay is explicitly mentioned.¹⁸⁴

In the Danube River Basin the polluter pays principle is closely linked to prevention and precaution. These values can be traced in various rules, which ‘constitute a basis for all measures aiming at the

171 In the literature this is often referred to as the ‘integrated river basin approach’ or the ‘integrated water system approach’. See, for instance, Nehmelman et al. 2013, *supra* note 1, pp. 10-11, and Van Rijswick & Havekes 2012, *supra* note 15, p. 101.

172 The Helsinki Convention is often mentioned as the ‘cradle’ of the river basin approach in European and domestic water law. See, for instance, Gilissen 2009, *supra* note 1, pp. 19 and 37-38.

173 Both the Water Framework Directive (specifically see Considerations 33 and 35 of the WFD; see also Art. 3 of the WFD) and the Floods Directive are based on this approach. For an elaborate analysis of the implementation of this approach in European law, see Van Kempen 2012, *supra* note 1. Also see Gilissen 2009, *supra* note 1.

174 See Considerations 14 and 35 of the WFD. See also Art. 3 of the WFD.

175 See Considerations 23, 25, 41, 42 and 49 of the WFD.

176 See Consideration 13 of the WFD.

177 See Considerations 23 and 35 of the WFD.

178 See Art. 1(e) of the WFD.

179 See Art. 1.2 of the WA. Also see Van Rijswick & Havekes 2012, *supra* note 15, pp. 127-129.

180 See the Explanatory Memorandum (*Kamerstukken II* 2006/07, 30 818, no. 3).

181 See the definitions of ‘water system’ and ‘(water) management’ in Art. 1.1 of the WA. Also see Van Rijswick & Havekes 2012, *supra* note 15, pp. 110-113.

182 See also Art. 5(b) of the Helsinki Protocol I.

183 See for a broader perspective Nehmelman et al. 2013, *supra* note 1.

184 See Consideration 38 of the WFD. See also Art. 9 of the WFD.

protection of the Danube River and of the waters within its catchment area.¹⁸⁵ For instance, the polluter pays principle has been explicitly enshrined in Article 2(4) of the Danube Convention.

At the domestic level, Chapter 7 of the WA on taxation stipulates that the party polluting the water should (at least to some extent) bear the costs of measures to be taken to protect and improve the chemical or ecological status of water systems, which can be translated as the polluter pays principle. Also for other water services, Dutch water authorities are allowed to impose taxes, based on the Dutch Water Authorities Act.¹⁸⁶ This reflects the user pays principle or the beneficiary principle. Similar provisions can be found in the legislation on sewerage management and drinking water. The cost recovery principle ('user pays') is clearly reflected in the law concerning sewerage management, as Article 228a of the Act on Municipalities establishes a taxation competence for sewerage services. The user pays principle is embedded in Article 11 of the DWA. Drinking water rates should be fair, transparent and non-discriminatory, and moreover these may only aim at the *recovery* of costs, not at any kind of profit.

3.2.9. Equality

Last but not least, *equality* is an important value when it comes to water management. At the international level, several documents stipulate that a conflict between water uses should be resolved 'with special regard being given to the requirements of vital human needs.'¹⁸⁷ In addition, the Preamble of the 1997 Convention also considers 'the special situation and needs of developing countries' – i.e. the special and vulnerable position of those living in these countries. Helsinki Protocol I pays special attention to 'those who suffer a disadvantage or social exclusion'¹⁸⁸ and to 'the protection of people who are particularly vulnerable to water-related disease'.¹⁸⁹ These provisions reflect the idea of intra-generational equality. In addition, the Helsinki Convention and its Protocol I also refer to inter-generational equality.¹⁹⁰

The EU level also pays some attention to equality. For instance, Consideration 1 of the WFD starts with the recognition that water is a public good and points to the notion of inter-generational equality.¹⁹¹ Although in EU law in general, solidarity between Member States is a core principle,¹⁹² this has only modestly been elaborated in EU water law. The FD recognizes that there should be fair sharing of responsibilities and that the interests of other states should be taken into account when taking measures.¹⁹³ The WFD, however, the most important of all European water directives, has failed to implement the notion of river basin management in such a way that the possibility to utilize rivers is distributed in an equitable way amongst riparian states, causing evident inequality between Member States.¹⁹⁴

In the Danube River Basin there is attention to future generations as well,¹⁹⁵ when it comes to conservation of water, in particular the protection of drinking water supplies. No specific mention is made of intra-generational equality – probably due to the environmental (and not human rights) focus of the Convention.

In the Netherlands, intra-generational equality can be found at the basis of the WA.¹⁹⁶ This value is, for instance, reflected in the so-called 'priority of needs' ('*verdringingsreeks*'; Article 2.9 of the WA), as in times of water shortage the remaining water will be distributed in an equitable way, as legally determined in the Water Decree. There is no explicit reference to inter-generational equality in Dutch water management law, but water policy more and more focusses on the interests of future generations, or at least on looking further into the future.¹⁹⁷ Also the DWA breathes a clear scent of intra-generational

185 See Art. 2(4) of the DRPC.

186 See Nehmelman et al. 2013, *supra* note 1, pp. 15-17.

187 See Art. 10(2) of the 1997 Convention (emphasis added); Art. 5(2) of the 2008 Draft Articles. See also Art. 4(2) of the Helsinki Protocol I.

188 See Art. 5(l) of the Helsinki Protocol I.

189 See Art. 5(k) of the Helsinki Protocol I.

190 See Art. 2(5)(c) of the Helsinki Convention. See also Art. 5(d) of the Helsinki Protocol I.

191 It does so by mentioning the 'heritage' character of water. This is also explicitly confirmed in Consideration 15 of the WFD.

192 This comprises both intra- and inter-generational equality/equity. See Arts. 2, 3 (3), 21 (1), 24 and 32 of the Treaty on European Union.

193 See Consideration 15 of the FD. Also see Art. 7(4) of the FD.

194 See Van Kempen 2012, *supra* note 1.

195 See, for instance, Art. 6(a) of the DRPC.

196 See Gilissen et al. 2013, *supra* note 23, pp. 21-29.

197 For instance, pursuant to Art. 4.1(2)(d) WA from 2015 onwards the national water plan must include a 'vision on developments' within the next forty years. See Gilissen 2013, *supra* note 154, pp. 137-140.

equality, as fairness, non-discrimination, and consumer protection are at its deepest roots. One could argue moreover that also inter-generational equality is a value underlying the Drinking Water Act, as securing the sustainability of the public drinking water supply also takes place in the interest of future generations. This is endorsed by the fact that drinking water companies in their so-called drinking water supply plans must pay attention to, inter alia, the needs of future generations, or at least ‘future drinking water needs.’¹⁹⁸

3.2.10. Public water values pertaining to drinking water/the human right to water

The public values relating to drinking water that are most frequently mentioned are safety, affordability, sufficiency, adequacy, accessibility, continuity, fair pricing and rational use. These values closely relate to the human right to water. It has proved difficult to discuss these values separately since they are so closely related and often instrumental to one another. Hence, they are discussed simultaneously below.

At the international level clear guidelines have been set as far as the human right to water is concerned. As the CESCR indicated, everyone has the right to *sufficient, safe and affordable* drinking water.¹⁹⁹ In addition, General Comment 15 lists among its core obligations, which, unlike other economic, social and cultural rights, require immediate action, that ‘[t]he elements of the right to water must be *adequate* for human dignity, life and health.’²⁰⁰ In addition, the *priority of uses* is also established in General Comment 15, which means according to the CESCR that ‘[t]he human right to water entitles everyone to sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic uses.’²⁰¹ At the EU level, the Drinking Water Directive (DWD) addresses the human rights dimension of water. It explicitly mentions the need for *wholesome and clean drinking water*.²⁰² Remarkably, *sufficiency* of drinking water is *not* mentioned as an underlying public value in this Directive, nor can it implicitly be discovered by analysing the more specific rules of the Directive.²⁰³ At the sub-regional level of the Danube River Basin, there is no clear trace of underlying public water values pertaining to drinking water.

In the Netherlands, especially in comparison to the relevant provisions at the other institutional levels, the human right to water is exhaustively elaborated and embedded in legislation, mainly in the DWA. Some aspects of the Dutch drinking water law have already been discussed above; these will not be discussed again. First of all, from a public health point of view, there is strong emphasis on the need to ensure *sufficient drinking water of a high quality*.²⁰⁴ Moreover, no-one should be deprived from drinking water under normal circumstances (*accessibility and continuity*).²⁰⁵ As mentioned above, drinking water should be *affordable*, and pricing should take place in a *fair, reasonable, non-discriminatory and transparent* manner, while drinking water companies are legally encouraged to execute their tasks and organize their services as *efficiently* as possible.²⁰⁶ One last remarkable aspect of the DWA to be mentioned here is that the drinking water companies not only have obligations regarding the interests of their consumers; they must also endeavour to raise public awareness and to encourage rational use.²⁰⁷ This means consumers

198 See Art. 37(1) of the DWA.

199 General Comment 15, supra note 12, Para. 2 (emphasis added). See also ‘[t]he right to water clearly falls within the category of guarantees essential for securing an adequate standard of living, particularly since it is one of the most fundamental conditions for survival.’ General Comment 15, supra note 12, Para. 11. The GA resolution on human right to water and sanitation as well as the Millennium Declaration also acknowledge this aspect. GA Human right to water and sanitation, supra note 65, Preamble; GA Millennium Declaration, supra note 66, Para. 19.

200 General Comment 15, supra note 12, Para. 11. Adequacy is defined based on the following factors: availability, quality and accessibility. General Comment 15, supra note 12, Para. 12.

201 General Comment 15, supra note 12, Para. 2 (emphasis added). See also ‘[t]he right to water clearly falls within the category of guarantees essential for securing an adequate standard of living, particularly since it is one of the most fundamental conditions for survival.’ General Comment 15, supra note 12, Para. 11. The GA resolution on human right to water and sanitation as well as the Millennium Declaration also acknowledge this aspect. GA Human right to water and sanitation, supra note 65, Preamble; GA Millennium Declaration, supra note 66, Para. 19.

202 See Arts. 1(2) and 4 of the DWD.

203 The European Commission *does* state on its website regarding the Drinking Water Directive that sufficient drinking water is essential for our daily life (see <<http://ec.europa.eu/environment/water/water-drink/>> (last visited 7 April 2014)). Somehow, however, this recognition did not make it into the law.

204 Chapter III of the DWA holds concrete provisions on the quality of drinking water.

205 See Art. 32(1) of the DWA.

206 See Arts. 11 and 12 of the DWA.

207 See Art. 7(2)(b) of the DWA.

should, in turn, be stimulated to use drinking water in a non-dissipating, responsible and rational way, which clearly reflects the public value of *rationality*.

4. Discussion and conclusions

The analysis needed to produce the Table presented at the end of Section 3.1 revealed that a comparison of the public values at the different levels poses some challenges. One of them is the fact that sometimes different terms or concepts are used to denote the same value. Moreover, it was not always evident that each analysis identified public values by using the same ‘grain size’: often there is a choice to be made between either only including a public value as a container value protecting several other ‘sub-values’ (i.e. values that are instrumental to another value), or including these sub-values themselves as separate public values. In order to compare the results of applying our method to the various levels, the table aims to rely on the terms that are or can be accepted at each level, trying to use consistent ‘grain size’ for the various public water values, as described in Section 3.2.

The following observations can be made based on the cross-scale comparison. First, there does not seem to be particularly strong substantive fragmentation between the various levels regarding the ‘core values’ of prevention, precaution, sustainability, equality and equity: these are present at every level, even though the focus as indicated by the specific rules of conduct might vary.

A second observation is that generally, the domestic and the European level seem to protect a longer list of specific values in addition to these core values. Nevertheless, these more specific values can or might be traced back to the same underlying values. In this sense, the European and the domestic level can be said to be the most elaborated of the four levels studied. For the international level, this lack of detail may be logical, because it has to deal with water law in a very general sense. For the sub-regional level, however, it is noteworthy that some of the values present at the European level are not so visible here. This is most remarkable for the value of integrality: although the Danube Commission tries to incorporate the value in its working method, it does so only because of European law and this value is not as such enshrined in legal texts at the sub-regional level.

Third, it can be noted that both the European and the sub-regional level display a gap regarding the values pertaining to drinking water. At the sub-regional level, this can be explained by the specific focus of the Treaty on the protection of the river, although some concerns could have been expressed with regard to ensuring a minimum amount of drinking water. At the European level, the reason is that these values are somehow related to water quantity²⁰⁸ and that drafting legislation regarding water quantity requires a special legislative procedure.²⁰⁹ Since it is more difficult to achieve agreement via this special procedure, water quantity legislation currently is not part of European law.

As a fourth observation, one can see that – although present at the international level – horizontal fragmentation of water law is less visible at the European and the domestic levels. Surely, one can clearly distinguish aspects of the various dimensions in the legislation on these levels. It is, however, the explicit objective of these levels to treat these aspects in an *integrated* manner instead of a fragmented manner. This integral approach, since the beginning of this century, is clearly a guiding concept for government policy at the European and the domestic level. In the Netherlands, this integrality has even led to the codification of, inter alia, water safety law and water quality law into a single Act.

What is not visible in the results presented above, is the *degree* of protection that the public water values mentioned receive in water management practice, that is to what extent these values are actually complied with, observed or taken into account in the decision-making practices and to what extent these values are elaborated in concrete rules of conduct that are enforceable. The analysis of these four levels has only studied which public values pertaining to water have been (implicitly or explicitly) embedded in the legislation at these levels, meaning that this analysis only covers the theoretical protection of these

208 This is not the case, however, for fair pricing and rational use.

209 See Art. 192(2) of the TFEU.

values. The actual protection depends on many other factors. It is beyond the scope of this article to delve deeper into these factors.

It should also be noted that exploring only *one* domestic, one regional and also one sub-regional level for that matter makes it difficult to draw general conclusions regarding the substantive fragmentation of water law as far as public values are concerned. This analysis can only serve as an example and does not claim much predictive value for analyses of other domestic or (sub-)regional legislative systems. As the analysis underlying this article shows no particularly strong substantive fragmentation, it might be argued that there are no serious social and environmental problems as mentioned in Section 2.1 at the levels studied. But, of course, if India had been studied rather than the Netherlands, for example, the results presented above may very well have been quite different and might have led to other conclusions regarding the severity of the negative effects mentioned.

Hence, to conclude this analysis, it can be said that this article provides some interesting observations regarding the differences and similarities in the theoretical protection of public water values at the levels studied. However, this is only the starting point for further analysis. Not only is more research needed regarding the substantive differences and similarities in the protection of public values in general, also a broader range of 'lower' levels should be studied in order to draw stronger conclusions regarding substantive fragmentation and its effects. ¶