János Ede SZILÁGYI* ystematization and some current issues of water law and water

Systematization and some current issues of water law and water regulation in the framework of the European Union**

Abstract

The aim of this study is to show where and how water-related legal regulations appear in the legal system of the European Union and what are the current issues that most affect the European Union's water legislation. Although we strive for a holistic approach in the present study, however, because of the complex and difficult nature of the issue, our attempt to present the above questions may only be subjective and partial. In the first half of the study, we try to show what is meant by 'water law' in the European Union. In the second, larger half of the study, we list some of the water-related regulatory concepts and then try to show which parts of the European Union legislation are covered by these regulatory concepts. As we will see, what the European Union today defines as water law does not cover all essential regulatory concepts of water. In other words, important water-related regulations (these are simply called regulatory concepts of water) are in many cases outside the European Union's water law.

Keywords: water law, water governance, EU law, Water Framework Directive

The law deals with the relations of society, human behaviour and creates regulations to impose rights and obligations on people. In connection with the legal provisions related to water, both the international literature and the Hungarian literature refer to 'water law', which suggests the existence of a unified and systematic legal field. However, the situation is exactly the opposite. Water is related directly or indirectly to the numerous relationships of human society. That is, there are many legal provisions for water. The whole set of water-related regulations does not constitute a single system within the law, but the area in the law of nations – that is, in national legal systems – or in law among nations – that is, in international law – appears, to a greater or lesser extent, in countless fields of law. In this context, it can be stated that in a national legal system, in international law or in European law (i.e. European Union law), water-related regulations are fragmented and do not form a coherent system. The system can only be found in some sub-areas of water-related rules (e.g. water management requirements form such a system). In addition, the systematization of water-related legal provisions is made more difficult by the fact that – besides

János Ede Szilágyi: Systematization and some current issues of water law and water regulation in the framework of the European Union – A vízjog és a víz jogi szabályozásának rendszere és egyes aktuális kérdései az Európai Unió keretében. *Journal of Agricultural and Environmental Law*

ISSN 1788-6171, 2019 Vol. XIV No. 26 pp. 255-298 doi: 10.21029/JAEL.2019.26.255

^{*} dr. jur., PhD, dr. habil., associate professor, University of Miskolc, Faculty of Law, Institution of Civil Law, Department of Agricultural and Labour Law, ORCID: 0000-0002-7938-6860, e-mail: civdrede@uni-miskolc.hu

^{**} This study has been written as part of the Ministry of Justice programme aiming to raise the standard of law education.

provisions directly referring to water and watersheds (for example, as the Hungarian Water Management Act,¹ in which water is presented in a variety of ways and expressions) – in water-related cases, there is great importance of rules which do not have direct (expressis verbis) content to the water. It can be deduced from this that the legislation on water is not only fragmented, unstructured and enormous, but also unknowable. In our view, the integrative approach (integrated water management), which is often expressed in international and domestic scientific life, is difficult to achieve with a legal background of these characteristics. In light of the foregoing, instead of using the term water law, we could logically use the term 'water and law', which expresses more unstructuredness. Why shall the term water law be used then? The answer is simple:as it is an existing term, both in foreign and domestic literature.

1. 'Water law' in the European Union's water policy and law

The World Water Development Report presents European Union law as a part of international water law. The World Water Development Report identifies EU water law as a regional organizational law that is directly binding on EU Member States and EU water law also has a strong enforcement mechanism.² We also agree with this classification of the World Water Development Report, and we also note that the EU institutions may, in a sense, also play a role in enforcing international treaties that are otherwise difficult to enforce.³ According to the practice of the Court of Justice of the European Union (hereinafter referred to as CJEU), international water law agreements, of which both the EU and its Member States are contracting parties, are integral parts of European law.⁴ Against this background, the CJEU seems to be ready to assess whether a Member State's national law has complied with a specific provision of such an international environmental agreement, which may have a direct impact, for example, in a situation where there is no relevant EU law.⁵

In the EU's own documents, the term 'water law' can be found as well. For example, 'EU water law' has been repeatedly referred to in the so-called 'Fitness Check' document,⁶ which document provided a legal analysis for the 'EU Water Strategy'.⁷

⁴ Case 181/73, Haegeman v Belgian State, judgement of the European Court of 30 April 1974, ECR 1974-00449, paragraphs 5.

¹ Act LVII of 1995 on water management.

² WWAP 2009, 50.

³Thieffry [-].

⁵ Case C-213/03, Syndicat professionnel coordination des pêcheurs de l'étang de Berre et de la région kontra Électricité de France (EDF), judgement of the European Court of 15 July 2004, ECR I-07357; Case C-239/03, EC Commission v France, judgement of the European Court of 7 October 2004, ECR 2004 I-09325.

⁶ European Commission, *The Fitness Check of EU Freshwater Policy*, SWD(2012) 393, Brussels, 15 November 2012, 9., 10., 15., 16., etc.

⁷ European Commission, A Blueprint to Safeguard Europe's Water Resources, COM(2012) 673, Brussels, 14 November 2012.

We just note that in the Fitness Check document, the term 'water legislation' is similarly often mentioned in a similar context, but the Hungarian version of the EU Water Strategy translates this term into 'water management legislation's (this translation is, in our opinion, somewhat misleading and would have been more fortunate the use of the term water law in this case). In any case, the Fitness Check document identifies the following main EU rules for EU water law.9 The two most important pillars of EU water law are the Water Framework Directive¹⁰ and the Floods Directive.¹¹ In the period prior to the adoption of the Water Framework Directive, Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources and Council Directive 91/271/EEC of 21 December 1991 concerning urban waste water treatment were highlighted. After the adoption of the Water Framework Directive, as additional implementing directives, 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 and 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 were mentioned. Besides these, Directive 2006/7/EC of the European Parliament and of the Council of 15 February 2006 concerning the management of bathing water quality and Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption are also elements of the EU water law; these directives are regarded as significant components of the EU's water quality model.

The significant components of the EU water law basically¹² are directives and the determining elements of these directives connected to water protection. This is because the EU water policy is indeed part of the EU's environmental policy. In this context, it should also be pointed out that EU legislation treats the quality of water and the quantity of waters differently in certain respects. What they have in common is that, in both cases, the provisions on environmental policy of the Treaty on the Functioning of the European Union (TFEU) give the EU institutions the power to adopt new legislation. There is, however, a difference in the way in which they are subject to different procedures for regulating the quantitative and qualitative aspects of water. In other words, while EU measures which affect "quantitative management of water resources or affect[...], directly or indirectly, the availability of those resources" are adopted unanimously by the Council of the European Union under a special legislative

⁹ SWD(2012) 393, 4-6., 32. The analysis of these, see Szilágyi 2012. About the development of the EU water law, see furthermore Macrory 1993; Bándi 2011, 451–464.; Csák 2008, 100–115.; Farkas Csamangó, 123–139.; Fodor 2014, 210–234.; Kecskés 2013.

⁸ EU Water Strategy, 4, 17.

¹⁰ 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.

¹¹ Directive 2007/60/EC of the European Parliament and of the Council of 23 October 2007 on the assessment and management of flood risks.

¹² However, there is exemptions, e.g. Regulation 648/2004/EC of the European Parliament and of the Council of 31 March 2004 on detergents.

procedure, and the European Parliament should merely be consulted¹³ (so far, no such EU legislation has been adopted under this procedure¹⁴), for the quality aspects of water, another – much simpler – procedure is sufficient, namely the ordinary legislative procedure of the European Parliament and the Council of the European Union (which in the case of the Parliament demands the majority, and in connection with the Council of the European Union claims the qualified majority).¹⁵ With this in mind, it is already clear why EU water law basically focuses on water quality.

2. Regulatory concepts of water in the European Union law

In the previous chapter, we dealt with the content and fields of EU water law. We have already emphasized that the legislation concerning water and water issues can be much wider than this. With this in mind - that is, crossing the boundaries of water law in several respects - in this chapter, we try to examine what regulatory concepts and main legal institutions of water are in the legal system of today. It is important to emphasize that the same regulatory concept may be found in several types and levels of legal documents, such as international treaties, EU directives, national legislation, etc. It is also an opportunity that a legal document includes provisions for several regulatory concepts; for example the Water Framework Directive, Hungary's bilateral border water agreements or the Hungarian Water Management Act. These regulatory concepts are theoretical categories that can be accessed and organized in many ways. Essentially, with these regulatory concepts, decision-makers are trying to find out what major aspects of water should be regulated in a modern, 21st-century society in order to meet the challenges of water governance and integrated water management concepts, furthermore to achieve water policy goals. Our previous works¹⁶ have also presented systems of other authors. In this study, regulatory concepts connected to the EU law and current EU affairs are listed through a system of the author of the present article. According to this system, 17 the main regulatory concepts concerning waters are as follows: (a) water as a separate legal person, (b) water as the subject of power, possession and property, (c) water as an environmental element, (d) water as a natural resource and the subject of commercial transactions, (e) the right to water (f) the legal regulation concerning water-related damage events, (g) the river basin as an institutional organization concept.

2.1. Water as a separate legal person

Recently, the issue of water as a separate legal person (entity) has repeatedly been raised in some interesting cases; see Ecuador, New Zealand and India.¹⁸

¹⁵ Article 192 (2) of the TFEU.

¹³ Article 192 (2) of the TFEU.

¹⁴Thieffry [-].

¹⁶ Szilágyi 2013, 58–62.; Szilágyi 2018b, 224–229.

¹⁷ C.f. Szilágyi 2016.

¹⁸ See Szilágyi 2018a, 9–22.; Szilágyi 2018b, 229–233.; Horváth, Bartha & Szilágyi 2018, 15–16.

Considering these foreign examples and certain Hungarian antecedents.¹⁹ in 2016. a Hungarian NGO, the so-called Balatoni Kör, turned to the Hungarian government with an initiative²⁰ aimed at recognizing the legal person status of Lake Balaton. (It should be noted that, in a forward-looking way, Balaton already has a separate regional development law²¹ in Hungary.) In 2017, as a continuation of the initiative of Balatoni Kör, now complemented with European dimensions, another Hungarian NGO, the socalled Védegylet, and other persons also appealed to the Hungarian and European Parliament's MPs. There are two elements to the Védegylet's initiative. One of the elements of the call is similar to the initiative to the Balatoni Kör, so the initiative of the Védegylet also includes the recognition of the legal person status of Lake Balaton, which affects only Hungary, and the decision of the Hungarian legislator would be sufficient for this recognition. Anyway, the author of this paper has already dealt with this issue.²² The other element of the call would be the recognition of the legal person status of Danube and Tisa rivers. However, this should also be the decision of the legislators of other countries concerned, and it would have many international legal and European legal aspects. The author of this study believes that research into these international legal and European legal dimensions could be the subject of a particularly valuable future analysis.

2.2. Water as the subject of power, possession and property

If water is not an autonomous legal person, then it is the (indirect) subject matter of the legal regulation over which others (i.e. persons) exercise power, that is, possess and own it. But who ultimately has power over the water? The question can be answered from different aspects.

In connection with the discussion of the regulatory concept related to this part, the present article focuses on power issues (including property rights issues) connected to the natural fresh waters (surface water or groundwater, rainwater), their natural and artificial holding medium (bed, island, canal, reservoir), as well as objects directly related to their utilization (flood protection lines, water facilities, water utilities). We will discuss the legal issues related to the already extracted water in the section dealing with water as the subject of commercial transactions.

In the European Union, issues related to the exercise of power over the waters have recently arisen in international trade agreements recently concluded by the EU and to be concluded with other trading partners in the near future. An excellent example of this is the Comprehensive Economic and Trade Agreement (CETA) between the EU and Canada, which was signed in 2016. The CETA advocates that water in its natural state, including lakes, rivers, reservoirs, aquifers and water basins, is not a commodity or product and CETA also states that all contracting states have the right to protect and preserve their natural water resources. Nothing in the agreement obliges countries to

¹⁹ Szilágyi 2018b, 229–233.

²⁰ Balatoni Kör 2016.

²¹ See Act CXII of 2000.

²² Szilágyi 2018a, 9–22.; Szilágyi 2018b, 229–233.; Horváth, Bartha & Szilágyi 2018, 14–19.

allow their waters' commercial use for any purpose.²³ It is worth noticing that this provision of the CETA deals with the so-called virtual water or embodied water – i.e. the amount of water required to produce a product or to provide service, from start to finish – merely in an indirect way; but there is no doubt that the relevant provisions of the CETA also provide some kind of security. Hopefully, we will have at least a similar level of protection in future trade agreements to be signed by the EU and its Member States. The regulation of waters in international trade agreements is closely linked to another regulatory concept, namely the concept of 'water as a natural resource and the subject of commercial transactions'.

The above-mentioned rules of CETA may be familiar for those who have already dealt with European Union law. In the European Union, as has already been mentioned in the chapter on water law, the rules on quantitative and qualitative aspects of water can be adopted in a different procedure. Under the TFEU, EU legislation on water quantity is adopted unanimously by the Council of the European Union under a special legislative procedure, which provides a high level of protection for the Member States' sovereignty over the quantitative aspects of their water resources. In other words, this provision has a very similar legal effect to the CETA's rules, according to which none of the provisions of the CETA obliges countries to allow the commercial use of waters in their natural state for any purpose. Similarly to the above-mentioned CETA agreement, the EU Water Framework Directive also provides a rule on the legal nature of water. This rule is one of the most cited part of the Water Framework Directive, i.e. "water is not a commercial product like any other but, rather, a heritage which must be protected, defended and treated as such".24 It is true that this rule is situated not in the mandatory text of the Water Framework Directive itself, but in its preamble. However, the text in the preamble is also an important element in the case of a legal interpretation of the EU body dealing with the Water Framework Directive in the event of a legal dispute, 25 so that the expression of 'heritage'-status integrated into the preamble may also have a legal effect. Moreover, the Water Framework Directive does not specify who is 'heir' in this relationship. It is not clear from the grammatical interpretation of the text itself, but it is clear from the scope of the Water Framework Directive that the EU legislator has declared the 'heritage'-status of water also in connection with the natural state of water. This part of the Water Framework Directive, similarly to the CETA, is also a kind of safeguard of the sovereignty of the Member States.

2.3. Water as an environmental element

The regulatory concept of water as an environmental element deals with water as one of the elements of the environment. Therefore, this regulatory concept is closely

²³ Part 1, Article 1.9 of the CETA.

²⁴ Preamble (1) of the Water Framework Directive.

²⁵ As an example, see Case C-525/12, European Commission v Federal Republic of Germany, opinion of Advocate General Jääskinen delivered on 22 May 2014, paragraph 65: water is "a heritage which requires particular protection".

related to environmental law. Therefore, the characteristics of environmental regulation are also true for this regulatory concept; for example, it has a close relationship with all other areas of the legal system. This was also stated by the legislator in the general justification of the Hungarian Environmental Protection Act²⁶ (hereinafter: Kvt.): "The renewal of environmental regulation is primarily characterized by the concept of environmentally friendly legal system... [;] environmental legislation cannot be imagined in itself... [;] a separate environmental legal area cannot exist ... [;] no regulation can be grounded today without recognition its environmental impact...". All levels of environmental law (international, EU, national) have serious water-related relevance. The general part of environmental law connected to waters in all respects, and the specific part of environmental law in many respects (especially climate protection, nature conservation, land protection).

It is worth noticing that the relationship between the 'water as an environmental element' and the 'water as a natural resource and commercial transactions' concept is very close. Thus, the same legal document often contains provisions for both regulatory concepts. With this in mind, it is very difficult – and in some ways unnecessary – to clearly delineate and classify the legal documents as belonging to one or another regulatory concept. There are similarities between the two regulatory concepts, as these two regulatory concepts – in comparison with other regulatory concepts – have much more extensive legal literature in the Hungarian jurisprudence. Because of this specificity, we also have the opportunity to present these two regulatory concepts in a more schematic way than other major contexts. With this in mind, we refer briefly to the related international, European Union and Hungarian legal documents in the context of the 'water as an environmental element' regulatory concept, and then address some of the issues that arise in connection with this regulatory concept.

The European Union's water law is essentially formulated by the regulatory concept of water as an environmental element, which is also due to the fact that it has been developed within the framework of EU environmental policy. The Water Framework Directive is at the heart of European Union water law. The Water Framework Directive has been adopted in the form of a directive, i.e. a binding EU legal norm, which gives Member States a great deal of freedom to implement the provisions of the Directive, on the one hand by its framework character and, on the other hand by its very nature. The Water Framework Directive is a unique formal and substantive combination of the categories of water policy documents and legally binding EU law. In our view, it is appropriate in both categories. This dichotomy is also due to the fact that water policy and legal documents are also included in the documents supplementing the Water Framework Directive. Among the water policy documents, the EU Water Strategy, the EU Flood Strategy, ²⁷ as well as the EU Drought

_

²⁶ Act LIII of 1995.

²⁷ European Commission, *Flood risk management: Flood prevention, protection and mitigation*, COM(2004) 472, Brussels, 12 July 2004.

Strategy 2012,²⁸ has been highlighted. Among the sources of EU law that have binding legal force, the previously mentioned Floods Directive should be highlighted. Other legal documents belonging to the classic models of EU water protection fit into the legal framework of the Water Framework Directive (see chapter 1 of the present article).²⁹ It is important to emphasize that the EU Seveso III Directive³⁰ is of great importance for the protection of water as an environmental element. (In this work, due to the lesser involvement of Hungary, we are not dealing in detail with the Marine Strategy Framework Directive of the European Union.³¹)

Among the above documents, we are dealing primarily with the Water Framework Directive in this work. The Water Framework Directive represents a major renewal of previous EU water regulation. As a result of the Water Framework Directive, the EU has made significant progress towards integrated water management. The most important features of the Water Framework Directive are: (a) An already mentioned integrative approach, covering many elements of the hydrological cycle and different types of water use, to be taken into account in the adoption and operation of other EU policies. (b) The bases for regulation are river basins; that is, the regulation largely focuses on the specificities of the geographic extent of water and is not based on the classical administrative units of the Member States.³² (c) Including a combined approach, regulatory methods include both the regulatory model for individual emissions and the (immission) regulatory model for water quality standards. (d) In addition to qualitative water protection, quantitative water protection has also been introduced, recognizing that there are close links between the quantity and quality of water protection.

As a starting point, the EU Water Strategy considers the EU 's three decades of water policy and related legislation as a successful system. The EU Water Strategy attaches particular importance to the adoption of the Water Framework Directive. According to the EU Water Strategy, the target set by the Water Framework Directive, namely the achievement of good status in EU waters, would be achieved by 2015 at just over half of EU waters.³³ The EU Water Strategy reveals in a complex way the reasons behind the failure to improve water status. For example, there is a lack of law enforcement in relation to the regulatory environment and, in close connection with this, the EU Water Strategy concluded that Member States did not allocate adequate

²⁸ European Commission, Report on the Review of the European Water Scarcity and Droughts Policy, COM(2012) 672, Brussels, 14 November 2012.

²⁹ See Szilágyi 2013, 116–132.

³⁰ Directive 2012/18/EU of the European Parliament and of the Council of 4 July 2012 on the control of major-accident hazards involving dangerous substances.

³¹ Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy (Marine Strategy Framework Directive).

³² According to the assessment in the World Water Development Report, the Water Framework Directive is the only supranational water management system all around the world; see WWAP 2012, 9.

³³ EU Water Strategy, 5.

financial resources to each measure.³⁴ Accordingly, the EU Water Strategy aims to achieve the original objectives of the Water Framework Directive. This is not primarily envisaged by the European Commission as an amendment to the Water Framework Directive (although it also foresees it before 201935), but by more consistent implementation of the Water Framework Directive. In addition, Ivan Zavadsky, Secretary of the International Commission for the Protection of the Danube River (ICPDR), shared this interpretation at a conference in Budapest organized after the Budapest Water Summit (BWS).36 Ivan Zavadsky said that so far, the planned amendment of the Water Framework Directive is not known as being systemic, but containing rather minor adjustments. Against the optimistic position of the European Commission, the author of the present paper has already formulated some major amendment-proposals (to make quantitative issues more effective, to make the settlement of cross-border disputes more effective³⁷) and the author determined some uncertainties that it would be worth handling; for example: "(a) Knowledge of an original state of the aquatic environment is one of the prerequisites for achieving an excellent ecological status. However, there are Member States (such as the United Kingdom) in which there are not water bodies free of the effects of human activity. Consequently, the quality status of the waters is already established on a controversial basis. (b) There is a number of exceptions to the achievement of good ecological status in the competence of the Member States; for example, the case of significantly (heavily) modified or artificial water bodies. In this context, it can be questioned whether these exceptions serve the overall EU objective of achieving good status by the deadline set in the Water Framework Directive. (c) The exact cost of achieving the objectives of the Water Framework Directive is extremely difficult to determine. Understandably, this does not help to comply with EU law.38 (d) The Water Framework Directive does not regulate what happens if good status is not met by 2027 as an objective to be achieved.^{39"40} Besides, it is worth noticing that the EU Water Strategy⁴¹ perceives the shortcomings connected to the efficiency of the dispute settlement in cross border river basin issues, but the European Commission does not intend to move forward in this respect. As mentioned earlier, in parallel with the preparation of the EU Water Strategy in 2012, the European Commission also assessed the river basin management plans of each Member State. Thus, for example, in the case of Hungary, besides numerous positive evaluations, the Commission working document has also highlighted serious shortcomings regarding the reliability of status assessments, the justification of the

³⁴ C.f. EU Water Strategy, 4.

³⁵ EU Water Strategy, 23.

³⁶ Ivan Zavadsky's notice, in: *Prevention and management of cross-border water conflicts in Europe*, conference, National University of Public Services, Budapest, 1 December 2016.

³⁷ Szilágyi 2013, 234–237.

³⁸ Bell & McGillivray 2008, 594–595.; Krämer 2012, 256.

³⁹ Krämer 2012, 256.

⁴⁰ Szilágyi 2012, 598–599.

⁴¹ EU Water Strategy, 4.

application of exemption options and the financing uncertainties.⁴² In 2015, when the European Commission reassessed the implementation of the Water Framework Directive in the Member States, it was highlighted among the issues of legal relevance in the Hungarian Expertise Review that the principle of total cost recovery under the Water Framework Directive could not be achieved in time⁴³ (in the opinion of the authors of the material, this imperfection is largely connected to the proper application of the principle in the agricultural sector⁴⁴).

In the final analysis, one of the biggest shortcomings of European Union law is the fact that European law primarily regulates the quality aspects of waters, but it determines the quantitative aspects of water only in a complementary way. Another major weakness of European law is the inadequate resolution of cross-border interest and legal conflicts.⁴⁵

2.4. Water as a natural resource and the subject of commercial transactions

In many cases, the former regulatory concepts dealt with the state of the waters before human extraction and the social conditions associated with them. However, the regulatory concept detailed in this chapter (i.e. 'water as a natural resource and the subject of commercial transactions') is clearly about water extraction and human use. This regulatory concept consists of several elements. Thus, water is a part of this concept (a) as a natural resource, and (b) as the subject of commercial transactions, the latter includes (b1) water as a commodity and (b2) water as a service. Direct human use of water has particular importance within the latter category.

In European law, the Water Framework Directive, which has been adopted primarily on the basis of the 'water as an environmental regulatory' concept, and other related EU (typically) directives, constitutes an important framework for water use. In addition, other EU rules concerning water use are of great importance, such as the free movement of EU goods, services and capital.

In the natural resource category, waters that are the subject of commercial transactions occupy a special place; however, in connection with this, it is worth drawing attention, of course, to the warning contained in the preamble of the Water Framework Directive; namely that water is not a normal commercial product. While in the case of the natural resource category, the legislator expresses the mere possibility of satisfying social needs, the categories of goods or services as subject to commercial transactions represent a narrower approach.⁴⁶ In our previous research,⁴⁷ we have also

⁴⁵ See Baranyai 2018. C.f. Bujdos 2017.

⁴² European Commission, Member State: Hungary, Commission Staff Working Document on the implementation of the Water Framework Directive River Basin Management Plans. SWD(2012) 379 Volume 15, Brussels, 14 November 2012, 3.

⁴³ Szilágyi 2015, Szilágyi 2014a.

⁴⁴ WRc plc 2015, 12.

⁴⁶ See Aylward et al 2009, 330.; Matsuoka 2001, 5.; see furthermore: WT/DS58/R, 15 May 1998 and WT/DS58/AB/R, 12 October 1998.

⁴⁷ Szilágyi 2013, 167–180.

addressed the fundamental question of how the two categories of commerce – the category of goods and services – can be separated from each other in terms of water, in accordance with the WTO (in particular its GATT and GATS conventions) and EU law. This delimitation is still timely and, at the same time, a number of issues (especially in the case of the WTO goods category) are still undecided.

In the concept 'water as a service', we should first consider a very important distinction between the category of 'commercial water service' and the category of 'environmental service'. The distinction between the two categories was one of the major issues before the Court of Justice of the European Union (CJEU),48 in which the European Commission and Germany (Hungary intervened on the latter side⁴⁹) also discussed on the principle of cost recovery (connected to water services) under the Water Framework Directive. One of the key issues of the case, which ended on September 11, 2014, was, therefore, what is covered by the Water Framework Directive, and whether it should be applied in commercial⁵⁰ or environmental⁵¹ terms. The point of the debate was whether the principle of cost recovery should be applied only to 21% of European water abstraction⁵² (this position is reinforced by the commercial interpretation) or 80% (confirmed by the environmental interpretation). In our view – which we have explained in detail in our previous work⁵³ – the CJEU does not take a clear position on this part of the interpretation debate,⁵⁴ but from other parts of the judgment it can be concluded that the CJEU basically considers the commercial approach to be relevant to the interpretation of the Water Framework Directive. On the basis of the analysis of the Water Framework Directive, we also see that the concept of water services in the Water Framework Directive is best understood by the interpretation of the concept of service in the internal market (i.e. trade), while the concept of environmental service has a relevance in connection with one of the cost factors of the principle of cost recovery (i.e. external costs). This interpretation is also reinforced by the determination of water services in Hungarian Water Management Plan 2.55 Water services based on Hungarian Water Management Plan 2 are the following: (a) utility water supply, (b) municipal wastewater supply, (c) agricultural water services (irrigation, fish pond, other), (d) own water abstraction (industrial, agricultural, residential), (e) damming and water storage for production purposes.⁵⁶

⁴⁸ See the previously mentioned case C-525/12.

⁴⁹ See case C-525/12, opinion of Advocate General, paragraph 37.

⁵⁰ The primarily legal sources of this interpretation are: Article 57 of the TFEU and Article 4 of Directive 2006/123/EC.

⁵¹ The primarily legal source of this interpretation is: Article 2, point 13 of Directive 2004/35/EC. It is worth noticing that the category 'environmental services' is not the same to the category 'ecosystem services'. See case C-525/12, opinion of Advocate General, paragraph 32 and footnote 39.

⁵² Case C-525/12, opinion of Advocate General, paragraph 31 and footnote 37.

⁵³ Szilágyi 2015.

⁵⁴ C.f. case C-525/12, opinion of Advocate General, paragraphs 59–63 and 68–70.

⁵⁵ Adopted by Governmental resolution No 1155/2016.

⁵⁶ Hungarian Water Management Plan 2, 1385–1386.

The Water Framework Directive focuses on the use of industrial, agricultural and household water in the context of discussing the principle of cost recovery for water services (Article 9). In the following, we mainly focus on household water use. Domestic water use refers to the use of water for human needs. Direct human consumption of water does not necessarily coincide with the category of water services. (It is worth emphasizing that, in contrast, the concept of environmental water services in the Commission's position in the case C-525/12 also covered the abstraction of water for self-sufficiency. ⁵⁷) The two essential aspects of the issue are drinking water and sanitation (in the latter case, the Hungarian profession would like to see some Hungarian term). One of the important branches of this regulatory concept is the question of the 'right to water', with which we later deal as a separate regulatory concept.

The part of this regulatory concept related to the water utility service is one of the most frequently studied areas of water law in Hungarian jurisprudence.⁵⁸ We make the following remarks about the water as a commercial service category and especially its water utility service section. (a) With regard to the World Trade Organization's (WTO) law concerning water as a commercial service, it is worth emphasizing that the relationship between the water sector and the General Agreement on Trade in Services (GATS) have been analysed in a 2005 WTO material⁵⁹ published by the WTO Secretariat in order to mitigate the concerns of certain WTO members, especially developing countries.60 The WTO Members are not obliged under the GATS to privatize or liberalize their water sector. According to the WTO Secretariat, the WTO members have the following options: (a1) to maintain a public or private monopoly; (a2) open up their water supply markets to competition in the internal market; (a3) open their water supply markets to external competition without committing themselves to GATS; (a4) open up their water supply market to foreign companies with commitment to GATS. However, in the light of the above position taken by the WTO Secretariat, it is important to refer to the opinion of the authors who say that not the GATS and the WTO oblige (most often developing) countries to the privatize and liberalize their water sector, but organisations in the international financial sector (such as the World Bank). These financial organisations force countries with financial problems to open their markets "voluntarily".61 One of the major issues of today is how trade issues are dealt with by trade parties in bilateral trade mega-agreements (such as between the EU and China). (b) The liberalization of water as a commercial service is a matter of European law from time to time. This is evidenced by the discussions on the liberalization of the water sector, the breakthroughs of which are largely between the EU Commission and the EU Parliament, but also with different

⁵⁷ See case C-525/12, opinion of Advocate General, paragraph 32 and footnote 39; c.f. paragraphs 59–63.

⁵⁸ See especially Belényesi 2013; Hegedűs & Tönkő 2014; Pump 2011; Szilágyi 2013, 172–214.; Szilágyi 2014b, 144–162.

⁵⁹ WTO 2005, 9.

⁶⁰ Aylward et al 2009, 331.

⁶¹ Hall & Thomas 2006, 7.

János Ede Szilágyi Systematization and some current issues of water law and water regulation...

approaches of individual Member States. 62 In 2002, a study on the liberalization of the water sector was commissioned by the EU Commission.⁶³ which was part of the general attempt to liberalize public services.⁶⁴ Some experts mention the shortcomings of the completed study that attempted to underpin the more efficient functioning of the public services deriving from liberalization and privatization with false assumptions.65 In any case, the EU Parliament has rejected the liberalization of the water sector through EU legislation. As a result, the European Commission has for some time abandoned its attempt to liberalize the water sector.66 The next step was the European Citizens' Initiative, 67 whose objectives include, in addition to the adequate recognition of the right to water, that water utilities and water management should in no way be subject to internal market rules and that water services should be definitively excluded from liberalization processes. (c) The two major Hungarian aspects of the topic are, on the one hand, in close connection with the principle of cost recovery, the determination of the value of water (or the price of water)⁶⁸ and, on the other, the role of the public-private sector in the water market, which aspect may also have several approaches: liberalization, deregulation or privatization⁶⁹ of the water sector, or - as the opposite of the previous developments - regularization, nationalization⁷⁰ or (re)municipalization⁷¹ of the water sector.

⁶² Szilágyi 2013, 176–194.

⁶³ Gordon-Walker & Marr 2002. See in particular page 2 of the study, which summarizes the arguments for and against the liberalization of the water sector. Against liberalization: (a) high costs of transporting water and (b) difficulties connected to liability issues for damage to waters of different quality provided by different supplier. It is defined as an argument for the liberalization of the water sector: (a) the high investment needs of the sector due to the improvement of public health and the environment; (b) greater transparency of the costs paid by consumers and the financial aspects of the service; (c) increasing consumer expectations regarding the quality of services; (d) budgetary constraints in the Member States.

⁶⁴ See especially: European Commission, *Green Paper on Services of general interest*, COM(2003) 270, Brussels, 21 May 2003; European Commission, *White Paper on services of general interest*, COM(2004) 374, Brussels, 12 May 2004. According to the latter one "services of general interest should be organised and regulated as closely as possible to the citizens and that the principle of subsidiarity must be strictly respected. The Commission respects the essential role of the Member States and of regional and local authorities in the area of services of general interest. This role is reflected in the Community's policies on services of general interest, which are based on various degrees of action and the use of different instruments in line with the principle of subsidiarity."; COM(2004) 374, 7.; see furthermore Hall & Lobina 2006.

⁶⁵ Hall & Lobina 2008, 6.

⁶⁶ Hall & Lobina 2008, 6-7.

⁶⁷ European Citizens' Initiative Right2Water 2012.

⁶⁸ Belényesi 2013, 237–244.

⁶⁹ In connection with the Hungarian situation, see Horváth M. 1997a, 197.; Horváth M. 1997b, 258.

⁷⁰ In connection with the Hungarian situation, see Horváth M & Péteri 2013; Szilágyi 2013, 163–214.

⁷¹ Municipalization means, within the framework of this study, (in a narrower sense) the acquisition of the ownership of the water utility by the local government, or (in a broader sense)

2.5. The right to water

In connection with the concept of 'the right to water', which is the gatherer regulatory concept for legal institutions providing direct access to water, it is important to make two remarks. (a) On the one hand, it must be stated that, although there is a very close relationship between the concept of 'the right to water' and the concept of 'water as a subject of commercial transactions', the concept of the right to water goes beyond commercial transactions. In other words, in terms of the form of access, the right to water can not only be ensured through the provision of water utilities, but also by the other forms of direct human consumption; for example, human direct needs can be met by bottled water or by car carrying water tank. (b) On the other hand, it is important to mention that the determination of legal institutions in the concept of the right to water can take place in many ways, for example in its name, in its definition and in its content;⁷² that is, in fact, it is a regulatory concept involving very heterogeneous legal institutions. With this in mind, we use the title of the right to water as a comprehensive category of separate sub-types (legal institutions). As an example, the right to water covers the subtype of a sui generis human right (this subtype cannot yet be considered to be widespread, and its functions may, if necessary, be guaranteed by the other human rights as well), or the subtype of an expressis verbis state task to provide access to water for all human beings in its territory. Nowadays, the right to water does not yet exist in every country as a compulsory sui generis - i.e. specifically created for this purpose – human right; that is, the recognition of the right to water as a sui generis human right (or other name: fundamental right) cannot be considered general. In the Hungarian legal system, for example, the right to water cannot be found as a sui generis human right, but it has already been regulated as a state task (obligation) expressly, and access to water is also promoted by Hungarian law by enforcing other human rights.⁷³

The social need for a right to water is also well documented by the European Citizens' Initiative⁷⁴ (it is worth noticing that this is the first valid initiative in the European Union!), whose aims are, among others, to recognize the right to water at an appropriate level by the institutions of the European Union. As a result of this initiative, on 25 June 2015, the European Parliament's Environment Committee discussed the European Citizens' Initiative (ECI) and the European Parliament's

when the proportion of local government involvement in the operation of the water utility increases. Remunicipalization refers to the process by which the local government regains the ownership of the water utility or the right to use it.

⁷² In connection with the Hungarian situation, see Raisz 2012; Szappanyos 2013, 11–130; Szabó & Greksza 2013, 2–15. (*Szabó*), 34–48. (*Bujdos-Fodor*), 49–67. (*Kardos Kaponyi*), 97–114. (*Kéri*), 116–135. (*Baillat-Schmitz*), 136–154. (*Buxhoeveden-Belényesi*), 155–169. (*Pánovics*), 170–179. (*Szemesi*), 180–193. (*Szappanyos*), 194–211. (*Greksza*); Antali 2011; Jakab & Mélypataki 2019; Kardos 2004; Kecskés 2009.

⁷³ It is presented by Fórika 2017.

⁷⁴ European Citizens' Initiative Right2Water 2012.

Environment Committee's reflective report on this, 75 and the Committee made a quite strong decision on this.⁷⁶ The decision criticized the European Commission's previous communication on the matter⁷⁷ and proposed that the European Commission, if appropriate, should submit an amendment to the EU Water Framework Directive in order that affordable access to water might be recognized as a human right in the EU. The European Parliament's Environment Committee also warned the European Commission that it could be a serious political threat not to take seriously the first European Citizens' Initiative; this could undermine the system of European Citizens' Initiative. The decision of the European Parliament's Environment Committee has made important findings in relation to water utility services as well. MEPs argued that the EU should remain neutral on how Member States define ownership issues of water utility suppliers. They also stated that water utilities should be permanently excluded from EU single market rules. MEPs likewise considered it important to exclude this sector from the EU's trade negotiations. Report of the European Parliament's Environment Committee was disputed in the European Parliament plenary session on 7-10 September 2015 and the European Parliament finally issued a strong resolution calling on "the Commission, in line with the primary objective of the Right2Water ECI, to come forward with legislative proposals, and, if appropriate, a revision of the WFD, that would recognise universal access and the human right to water; advocates, moreover, that universal access to safe drinking water and sanitation be recognised in the Charter of Fundamental Rights of the European Union".78

2.6. The legal regulation concerning water-related damage events

The regulatory concept of 'water as a damage event' includes legal institutions which are to protect the other environmental elements, including humans, from water, or lack thereof, or from other harmful phenomena associated with water. In relation to the relationship between the 'water as a damage event' regulatory concept and other regulatory concepts, the following can be established. While as an environmental element, water was the element to be protected by the legislator, in connection with the 'water as a damage event' regulatory concept, it is the opposite, that is the legislator endeavours to protect society from the harmful effects of water. As to the 'water as a natural resource' regulatory concept in the context of the Water Framework Directive,⁷⁹ for example flood protection can also appear as a possible 'water service'

⁷⁵ European Parliament, Report on the follow-up to the European Citizens' Initiative Right2Water (2014/2239(INI)), Committee on the Environment, Public Health and Food Safety, Rapporteur Lynn Boylan, A8-0228/2015, 14 July 2015.

⁷⁶ Committee on the Environment, Public Health and Food Safety of the European Parliament, Right2water citizens' initiative: Commission must act, say MEPs, Press Releases, 25 June 2015.

⁷⁷ European Commission, Communication on the European Citizens' Initiative Water and sanitation are a human right! Water is a public good, not a commodity!', COM(2014) 0177, Brussels, 19 March 2014.

⁷⁸ European Parliament, European Parliament resolution of 8 September 2015 on the follow-up to the European Citizens' Initiative Right2Water (2014/2239(INI)), P8_TA-PROV(2015)0294, point 10.

⁷⁹ See the above-mentioned case C-525/12.

activity. Nowadays, the issue of the transit across the boundaries between the regulatory concept of 'water as a natural resource' and the regulatory concept of 'water as a damage event' has become the focus of interest in *water governance*.⁸⁰ Namely, it is fundamental that the occurrence of waters varies in time and space; but what is the point when water scarcity or water surplus is considered to be harmful? In other words, how long can a water-related issue be categorized in the 'water as a natural resource' regulatory concept, and when are the requirements of the 'water as a damage event' regulatory concept applicable? In the case of a more effective practical implementation of the concept of '*integrated water management*', ⁸¹ many cases that we consider to be water damage today could be dealt with within the framework of other regulatory concepts – typically 'water as a natural resource'. Essentially, one of the Hungarian solutions to this topic was the so-called '*landscape-focus water management*' concept, ⁸² which has a number of serious legal aspects.

In the context of the 'water as a damage event' regulatory concept, it is essential to define what events we consider to be water-related. In this respect, not surprisingly, the categorization is rather wide-ranging.

Among the integrative provisions of EU law, the Water Framework Directive, which has already been presented, has a strong connection with various water-related damage events: this relationship is different for each damage event; for example, in the case of drought, this relationship is tighter, whereas in the case of flooding it was necessary to adopt the Floods Directive in order to achieve more effective cross-border protection against floods. However, inland water, which is a major challenge for Hungarian water management, is not regulated under this name in EU legislation.

In addition to the Water Framework Directive, a number of EU legislation on water damage can be mentioned. On the one hand, it is necessary to highlight Decision 1313/2013/EU of the European Parliament and of the Council on the Union Civil Protection Mechanism, which mobilizes Member States' support and assistance in the event of major emergencies, including floods, and contains important conceptual definitions on our subject. On the other hand, it is worth emphasizing Council Regulation No 2012/2002/EC establishing the European Union Solidarity Fund, which provides that "it is possible to grant rapid financial assistance in the event of a major disaster[...]. However the Fund may only intervene for emergency operations, and not for the phases preceding an emergency". 83 The EU Solidarity Fund has already been used for water-related damage. Finally, the Floods Directive itself should be highlighted. 84 From the point of view of European law, the implementation of the

⁸⁰ About the concept of water governance, see Szilágyi 2018b, 23–30 and 53–121.

⁸¹ About the concept of integrated water management, see Council of the European Union, *Protection of water resources and integrated sustainable water management in the European Union and beyond*, 11308/11, Brussels, 9 June 2011, 5–7, 9 and 12; furthermore Szilágyi 2018b, 32–34 and 129–137.

⁸² Szilágyi 2018b, 140–145.

⁸³ Preamble (8) of Floods Directive.

⁸⁴ For example at the time of drought in Cypress in 2008; COM(2012) 672, 5. Interestingly, at the European Council meeting on 24 September 2012, Hungary wished to present a draft

Floods Directive and the improvement of the efficiency of its implementation can be considered as the topical issue of 'water as a damage event' regulatory concept.

2.7. The river basin as an institutional organization concept

In the literature and related water policy documents, attention is often drawn to the difficulties arising from the fact that the natural extension of water bodies and the natural boundaries of river basins do not coincide with administrative boundaries and borders of states. More recently, global challenges highlight the fact that we all belong to a 'virtual river basin', more commonly known as the hydrological cycle, so human intervention at any point in the water cycle has an impact even on the system as a whole. In addition, the natural extension of surface and groundwater can vary considerably. The global water crisis is therefore a good indicator of the difficulties that categories of classical state theory and legal theory face in terms of a systemic environmental and water management approach. It should be noted, however, that the natural characteristics of the waters may cause difficulties not merely for public administration, but also, for example, how a state's ownership system treats the issue of ownership over waters. However, given that this latter issue has already been dealt with in the regulatory concept of 'water as the subject of power, possession and property', we would focus on the problem primarily in relation to administrative and state borders in this part. First of all, it is important to note that in the institutional system related to this regulatory issue we consider it worthwhile to manage water issues together with environmental issues, which institutional integration can bring important results in the effective implementation of the concepts of water governance and integrative water management. At this point, it is worth emphasizing that it would be particularly important to make definite progress at the international and national levels of environmental justice (which is not necessarily just a special environmental court!). We also note that some countries have specialized water courts. Thus, in Spain, for example, there is a special court in the 'el Tribunal de las Aguas de la Vega de Valencia', but also in Italy. In contrast to these Mediterranean examples, the northern European countries' water courts, however, despite their name, do not play a role in dispute settlement, but deal with water as government agencies.85

With regard to the European Union, we firstly point out that the water issue in the EU – basically, but not exclusively – is part of environmental policy and focuses on quality issues in this regard. There is a quite effective mechanism for enforcing EU legislation in the European Union; for example, the infringement procedure and/or the European Court of Justice. As a result, a real enforceable EU-wide regulation of disputed issues could be a major step forward for the proper operations of river basins shared by different Member States. For example, the effective regularization of

according to which the EU should provide aid from the EU Solidarity Fund to farmers affected by drought in an emergency, and that the EU should consider temporarily suspending its environmental standards; www.kormany.hu/hu/videkfejlesztesi-miniszterium/hirek/magyar-javaslat-az-europai-aszalykarok-enyhitesere [21.09.2012]

⁸⁵ WWAP 2003, 301.

János Ede Szilágyi Systematization and some current issues of water law and water regulation...

Journal of Agricultural and Environmental Law 26/2019

quantitative issues in EU water law could give a huge boost to the water governance of the EU.

The basis of the EU water policy and water law is now the concept of integrated river basin management. There are numerous shared-watercourse-situations in which Member States of the EU are situated in river basins shared with countries that are not members of the European Union. The system connected to the ICPDR provides an opportunity for the EU Member States to cooperate with these outsider-states; at the same time, the system of the ICPDR is not appropriate and properly effective to solve all disputes connected to the shared watercourses. However, the Water Framework Directive also has a less well-known dispute settlement mechanism, which is a mediation mechanism in reality. On the basis of the information available, however, this mechanism has hardly been used so far, because of the implementation deficit of the mechanism. The question is whether there is any intention in the Member States to support some kind of forward-looking amendment to the nature of this mechanism and its effectiveness.

The previously mentioned EU Danube Region Strategy (EUDRS), which is the EU's second macro-regional development concept, also provides a good opportunity for co-operation, notably for the financing of river basin countries and joint water management projects.⁸⁸

⁸⁶ Article 12 of Water Framework Directive. See Szilágyi 2013, 139.

⁸⁷ Gábor Baranyai called such a case – namely a conflict between Romania and Bulgaria in connection with a shared aquifer – when the parties used the WFD dispute settlement mechanism; Baranyai 2016.

⁸⁸ Hungarian Water Strategy, adopted by Governmental resolution No 1110/2017, 66.

Bibliography

- 1. Antali D G (2011) A kék bolygó kincse A vízhez való jog szabályozása nemzetközi és nemzeti szinten, *De Iurisprudentia et Iure Publico* 5 (4), pp. 1–40.
- 2. Aylward B, Bartram J, Popp Ch & Vapnek J, ed., (2009) Law for water management: a guide to concepts and effective approaches, FAO Legislative Study 101, FAO, Rome, www.fao.org/docrep/012/i1284e/i1284e.pdf [03.06.2017]
- 3. Balatoni Kör (2016) Önálló jogalanyi státuszt a Balatonnak, 28 November 28, http://www.hirbalaton.hu/balatoni-kor-onallo-jogalanyi-statuszt-a-balatonnak/ [06.08.2017]
- 4. Baranyai G (2016) Water disputes in the EU, presentation, in: Határon átnyúló vízügyi konfliktusok megelőzése és kezelése Európában: rendelkezésünkre állnak-e hatékony eszközök és mechanizmusok?, conference, Nemzeti Közszolgálati Egyetem, Budapest, 1 December 2016.
- 5. Baranyai G (2018) European water law and hydropolitics: an inquiry into the resilience of transboundary water governance in the European Union, PhD Thesis (working document), Pázmány Péter Catholic University, Budapest.
- 6. Bándi Gy (2011) Környezetjog, Szent István Társulat, Budapest.
- 7. Belényesi P (2013) A vízszolgáltatások hatékonyságának javítása a Vízkeretirányelv egyes rendelkezései és a szennyező fizet elvének tükrében, PhD Thesis, University of Debrecen, Debrecen.
- 8. Bell S & McGillivray D (2008) *Environmental law*, Oxford University Press, New York.
- 9. Bujdos Á (2017) *The analysis of the rules on transboundary water pollution*, PhD Thesis, University of Debrecen, Debrecen.
- 10. Csák Cs (2008) Környezetjog, Novotni Kiadó, Budapest.
- 11. Farkas Csamangó E (2017) Környezetjogi szabályozások, SzTE ÁJK ÜJI, Szeged.
- 12. Fodor L (2014) Környezetjog, Debreceni Egyetemi Kiadó, Debrecen.
- 13. Fórika L (2017) Az ivóvízhez való jog biztosítása az ombudsmani vizsgálatok tükrében, in: Fodor L & Bányai O, ed., *A települési önkormányzatok szerepe a környezeti politika és jog alakításában*, Debreceni Egyetemi Kiadó, Debrecen, pp. 145–156, DOI: 10.5484/fodor_banyai_telepulesi_onkormanyzatok
- 14. Gordon-Walker S & Marr S (2002) *Study on the application of the competition rules to the water sector in the European Community*, Study for European Commission Competition Directorate General, WRc & ECOLOGIC, December 2002.
- 15. Hall D & Lobina E (2006) *Water as a public service*, Ferney-Voltaire: Public Services International, 2007-01-W-waaps, 15 December 2006.
- 16. Hall D & Lobina E (2008) *The illusions of competition in the water sector*, 2008-09-W-UKcompet, PSIRU, September 2008.
- 17. Hall D & Thomas S (2006) GATS and the electricity and water sectors, 2006-03-WE-GATS, PSIRU, 3 March 2006, www.psiru.org/reports/2006-03-WE-GATS.doc [08.07.2011]
- 18. Hegedűs J & Tönkő A (2014) A víz- és csatornaszolgáltatás alternatív strukturális modelljei és ezek változási irányai, in: Horváth M. T, ed., *Külön utak*, Dialóg Campus, Budapest-Pécs, pp. 11–31.

- 19. Horváth M T (1997a) Közszolgáltatás, magánszerveződés privatizáció a településeken, *Magyar Közigazgatás* 47 (4), pp. 193–201.
- 20. Horváth M T (1997b) Közszolgáltatás, magánszerveződés privatizáció a településeken, *Magyar Közigazgatás* 47 (5), pp. 257–267.
- 21. Horváth M T, Bartha I & Szilágyi J E (2018) Hó és sár: a víz mint érték vagy érdek. Képzelt beszélgetés a víz jogalanyisága felvetésének ürügyén, *Közjogi Szemle* 11 (3), pp. 14–19.
- 22. Horváth M T & Péteri G (2013) Nem folyik az többé vissza Az állam szerepének átalakulása a víziközmű-szolgáltatásban, in: Kiss F L & Nagy Cs I & Valentiny P, ed., *Verseny és szabályozás* 2012, MTA KRTK Közgazdaság-tudományi Intézet, Budapest, pp. 177–200.
- 23. Jakab N & Mélypataki G (2019) The right to water as a social fundamental right, Journal of Agricultural and Environmental Law 14 (26), pp. 7–21, doi: 10.21029/JAEL.2019.26.7
- 24. Kardos G (2004) A vízhez való jog, Acta Humana 15 (1), pp. 93–98.
- 25. Kecskés G (2009) A vízhez való jog nemzetközi jogi koncepciója, Állam- és Jogtudomány 50 (4), pp. 569–598.
- 26. Kecskés G (2013) Water protection via the implementation of EU directives, in: Szabó M & Greksza V, ed., Right to water and the proetction of fundamental rights in Hungary, Pécsi Egyetem, Pécs, pp. 212–224.
- 27. Krämer L, ed. (2012) EU Environmental Law, Sweet & Maxwell Thomson Reuters, London.
- 28. Macrory R (1993) European Community Water Law, *Ecology Law Quarterly* 20 (1), pp. 119–139.
- 29. Pump Judit (2011) *A jog hatása a fenntartható közszolgáltatásra a hulladékgazdálkodás és a vízgazdálkodás területén*, PhD Thesis (working document), Eötvös Loránd Tudományegyetem, Budapest.
- 30. Raisz Anikó (2012) A vízhez való jog egyes aktuális kérdéseiről, in: Csák Cs, ed., Jogtudományi tanulmányok a fenntartható természeti erőforrások témakörében, Miskolci Egyetem, Miskolc, pp. 151–159.
- 31. Szabó M & Greksza V, ed. (2013) Right to Water and the Protection of Fundamental Rights in Hungary, University of Pécs, Pécs.
- 32. Szappanyos M (2013) Víz és jog, Veszprémi Humán Tudományokért Alapítvány, Veszprém.
- 33. Szilágyi J E (2012) A vizek védelmének jogi alapjai az EU vízvédelmi jogában, *Publicationes Universitatis Miskolcinensis Sectio Juridica et Politica* 30 (2), pp. 577–599.
- 34. Szilágyi J E (2013) Vízjog, Miskolci Egyetem, Miskolc.
- 35. Szilágyi J E (2014a) A magyar víziközmű-szolgáltatások és a Víz-keretirányelv költségmegtérülésének elve, *Miskolci Jogi Szemle* 9 (1), pp. 73–94.
- 36. Szilágyi J E (2014b) A magyar víziközmű-szolgáltatók integrációja jogi nézőpontból, *Pro Futuro* 4 (1), pp. 144–162.
- 37. Szilágyi J E (2015) Az uniós Víz-keretirányelv költségmegtérülésének elve az Európai Bíróság esetjogának tükrében, in: Szalma J, ed., *A Magyar Tudomány Napja Délvidéken 2014*, VMTT, Újvidék, pp. 212–226.

János Ede Szilágyi Systematization and some current issues of water law and water regulation...

Journal of Agricultural and Environmental Law 26/2019

- 38. Szilágyi J E (2016) Current challenges concerning the law of water services in Hungary, *Lex et Scientia* 23 (1), pp. 70–82.
- 39. Szilágyi J E (2018a) A víz jogalanyisága új-zélandi példájának alkalmazhatósága a Balaton és a magyar jog viszonyrendszerében, *Pro Futuro* 7 (2), pp. 9–23.
- 40. Szilágyi J E (2018b) *Vizszemléletű kormányzás vízpolitika vízjog*, Miskolci Egyetemi Kiadó, Miskolc.
- 41. Thieffry P (-) General Framework of EU Water Law The institutional nature of water legislation, https://www.era-comm.eu/EU_water_law/stand_alone/part_2/part_2_1_institutional_nature.html [03.08.2017]
- 42. WRC PLC (2015) Assessment of Member States' progress in the implementation of Programmes of Measures during the first planning cycle of the Water Framework Directive Hungary, 2015. március, http://ec.europa.eu/environment/water/water-framework/pdf/4th_report/country/HU.pdf [13.07.2017]
- 43. WTO (2005) *GATS Fact and fiction*, WTO, Genf, wto.org/english/tratop_e/serv_e/gatsfacts1004_e.pdf [16.07.2011]
- 44. WWAP (2003) *Water for People. Water for Life*, The United Nations World Water Development Report, UNESCO Berghahn Books, [n.p.].
- 45. WWAP (2009) Water in a changing World, The United Nations World Water Development Report 3, UNESCO Earthscan, Paris London.
- 46. WWAP (2012) Managing Water under Uncertainty and Risk (Volume I), Knowledge Base (Volume II) and Facing the Challenges (Volume III), The United Nations World Water Development Report 4, UNESCO, Paris.