

# The Current Legal Challenges in Agricultural Irrigation in the Framework of the Modernisation of the Hungarian Agricultural Water Law

## Introduction

The development of a new system of agricultural irrigation, including the relevant legal regulatory environment, has been a priority for the Hungarian government for more than ten years. Some of the measures taken in recent years may be informative and relevant for an international academic audience, and possibly even for legislators. With this in mind, those measures and developments are outlined in the sections below. In Section 1, we discuss the economic and environmental importance of the topic. In Section 2, agricultural water law is then presented as the most appropriate scientific framework for the legal aspects of agricultural irrigation. In Section 3, the concept of landscape-based water management is discussed in more detail, an ideal policy concept envisioned by Hungarian academics. It would be reasonable to approximate the legal environment of agricultural irrigation to that concept. In Section 4, a significant part of our study is devoted to a discussion of the Hungarian legal and regulatory environment, which has been continuously shaped and developed over the last decade. Finally, Section 5 highlights various elements and measures of Hungarian legislation that are recommended for consideration as good practice, while some issues are also outlined that may provide opportunities for further improvement.

## 1. Significance of the topic, the strategic objectives of an optimal irrigation structure and the EU framework

As far as water is concerned, it must be emphasized that while the Earth has an essentially constant water supply, which at current technology levels is sufficient to support approximately 20 billion people, it is already a source of various difficulties, as water is present on Earth in variable forms over time and space.<sup>1</sup> In addition to its assets of large agricultural land, Hungary also has substantial freshwater resources. The fact that Hungary is rich in water resources<sup>2</sup> should be understood in the global context referred to above. However, it should be clarified that while Hungary is a water-rich country, this does not mean that it is free from water management issues: for example, drought, floods, and inland water may occur in the same place within a single year, and the fact that a significant part of Hungary's aquifers stretch through the national border is a particular difficulty. Water is the gold of the 21st century; however, how can this treasure be used in a sustainable way? Looking at the purposes people currently use water for, it is seen that 70 percent of all water consumed is used for agricultural purposes (that figure will obviously vary considerably from region to region).<sup>3</sup> In other words, it seems a good idea *to convert* part of our water resources into *agricultural products* (for example, by developing agricultural irrigation). However, this requires a move towards a *more adaptive water management*, where an important objective should be to "retain water generated within the borders", i.e. to be able to use a greater part of our water resources within the country, rather than simply letting it flow through the country into neighbouring countries, as

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<sup>1</sup> P. Szűcs, F. Sallai, B. Zákányi, T. Madarász (eds.), *Vízkezelésvédelem: A vízminőség-védelem aktuális kérdései*, Bótor Kiadó, Miskolc 2009, p. 21.

<sup>2</sup> For a detailed discussion of the topic, see: J.E. Szilágyi, *Vízjog*, Miskolci Egyetem, Miskolc 2013, pp. 44–56.

<sup>3</sup> B. Aylward, B. Kiersch, N. Petralli, J. Vapnek, *Water resources and their management*, [in:] B. Aylward, J. Bartram, C. Popp, J. Vapnek (eds.), *Law for water management: A guide to concepts and effective approaches*, "FAO Legislative Study" 2009, No. 101, Róma, p. 40.

is currently the case. Such retention of water, the development of agricultural irrigation and drawing up a new basis and development concept for agricultural irrigation are justified not only by economic considerations, but also by climate change and the need to increase adaptation to it, i.e. to improve resilience. As the proportion of irrigated agricultural land in Hungary is still very low in comparison to the rest of Europe (approximately 2–3 percent), the development of this area is a priority for Hungary and should be based on a balanced achievement of the following two objectives. On the one hand, it should guarantee the competitiveness of Hungarian agriculture by ensuring that sufficient water is delivered to the land and farms at a reasonable price. On the other hand, a so-called resilient management (irrigation) structure should be established to keep abreast of climate change. It is unthinkable to achieve these two objectives in a balanced way by serving short-term interests alone. Importantly, it should be ensured that long-term national economic, social and environmental interests are also given due weight.

At the same time, the Member States of the European Union must also take into account the legislative framework of the European Union when developing a water management strategy for agriculture. Thus, for example, in the development of agricultural irrigation, the European Union's (a) human rights standards (in particular the right to property), (b) environmental standards (in particular the polluter pays principle), (c) the provisions of the Water Framework Directive (in particular the full cost recovery principle), or (d) state aid rules, among others, provide a very important framework for Member States to develop their national legislation on agricultural irrigation.

## 2. Basics of agricultural water law

Given Hungary's hydrographical characteristics, water management in the country has a number of specific features that impact Hungarian agriculture to a great extent: in a single year, drought, flood and (a Hungarian specificity) inland water can occur at the same place along the basin of the Tisza, Hungary's second largest river; the length of our flood protection facilities is among the

longest in Europe. In view of the above, it is no wonder that water governance has long been a priority topic in Hungary, and that in Hungary, traditionally thought of as an agricultural country, there are many points where the two topics (water and agriculture) are interlinked. The author of this paper has therefore considered it appropriate to include within the discipline and educational structure of agricultural law an area dealing with the interconnection of the two subjects, referred to by the author as “agricultural water law”.

In this view, *agricultural water law*, as a scientific and educational discipline, deals with the legal relevance of the relationship between agriculture and the water cycle, with a special focus on irrigation. In addition to irrigation, however, as agriculture is linked to the water cycle at various points,<sup>4</sup> agricultural water law also has various fields. There are various possible approaches to these areas. One should start with the concept of “water management”. According to the definition of *water management* under Act LVII of 1995 on Water Management (WMAAct),<sup>5</sup> *water management* includes the utilisation of water (this is both a quantitative and qualitative aspect), the preservation of the potential for water use (also a quantitative and qualitative aspect), and the protection and control of water against damage (protection against water damage). Looking at the relationship between agriculture and the water cycle in terms of water quality, water quantity and water damage, it can be concluded that agriculture has a major impact on (a) *water quality* and, at the same time, globally, (b) of all consumptive uses of water, agricultural use has the largest impact on water resources, accounting for 70 percent of total water use.<sup>6</sup> Moreover, agriculture is (c) highly

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<sup>4</sup> J.E. Szilágyi, *Vízjog, op. cit.*, pp. 33–40, pp. 159–161.

<sup>5</sup> Section 22 of Annex 1 to Act LVII of 1995 on Water Management (hereinafter: WMAAct).

<sup>6</sup> B. Aylward, B. Kiersch, N. Petralli, J. Vapnek, *Water resources...*, *op. cit.*, p. 40. While food production is probably the sector consuming the largest quantity of water, its future water demand is very difficult to predict. That difficulty is due to various reasons: (a) the difficulty of determining future food consumption patterns; (b) the impact of biofuels on the food sector, a rival sector in terms of land and water use; (c) the impact of future technological developments on water use in food production; (d) the impact of climate change – i.e., where, when and how much water will be available in the future – are extremely difficult to predict;

exposed to *damage* caused by water. A modern *agricultural water law* should therefore include all these areas – quality, quantity, and water damage – and, in particular, the closely related issues of (d) ownership and use. It is important to note, however, that the concept of “agricultural water management”, as defined by the WMAcT, is much narrower than the general concept of water management (and not only because of it being narrowed down to the agricultural sector). According to the WMAcT, the *agricultural water management* concept is limited to two of the aspects mentioned above, namely: the utilisation of water for agricultural purposes (in our interpretation, this is treated primarily as a quantity issue) and protection against water damage.<sup>7</sup> In relation to the *utilisation of water* there is the sub-area of agricultural water management, where the Hungarian legislator created the concept of *agricultural water services* largely based on the concept of *water service*<sup>8</sup> within the EU Water Framework Directive (Directive 2000/60/EC, WFD)<sup>9</sup> and the related case law of the Court of Justice of the European Union,<sup>10</sup> as well as the third Hungarian river basin management plan (RBMP3)<sup>11</sup>

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World Water Assessment Programme, *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 2012, p. 25.

<sup>7</sup> Section 13 of Annex 1 to the WMAcT.

<sup>8</sup> For an analysis, see in particular: J.E. Szilágyi, *Az uniós Víz-keretirányelv költségmegtérülésének elve az Európai Bíróság esetjogának tükrében*, [in:] J. Szalma (ed.), *A Magyar Tudomány Napja a Délvidéken 2014*, Novi Sad 2015.

<sup>9</sup> Articles 2(38) and (39) WFD. The WFD is discussed in more detail in: Gy. Bándi, *Környezetjog*, Szent István Társulat, Budapest 2011, pp. 449–453; Cs. Csák, *Környezetjog*, Novotni, Miskolc 2008, pp. 100–103; L. Fodor, *Környezetjog*, Debreceni Egyetemi Kiadó, Debrecen 2014, pp. 210–212; L. Miklós, *A vízvédelem szabályozása*, [in:] L. Miklós (ed.), *A környezetjog alapjai*, Szeged 2011, pp. 75–77.

<sup>10</sup> Judgment in case C-525/12, European Commission versus Germany, 11 September 2014.

<sup>11</sup> According to the *Summary of the River Basin Management Plan of Hungary*, 3<sup>rd</sup>, water services in Hungary include: (a) *public water supply*; (b) *municipal wastewater services*; (c) *agricultural water supply* (irrigation, fish farming, fishing, etc.); (d) *private water withdrawal* for industrial, agricultural and residential purposes; (e) *dams and storage for hydropower generation*. As far as the latter is concerned, it must be noted that while the WFD also makes mention of other types of damming, these (for navigation or flood protection purposes)

implementing the WFD, which concept includes (a) the irrigation of agricultural and forestry land, (b) activities to supply water to fish ponds and other agricultural water uses (e.g., rice paddies), and (c) activities to meet water needs for other purposes related to the agricultural water services system.<sup>12</sup> The second Hungarian river basin management plan (RBMP2),<sup>13</sup> *thermal water abstraction for agricultural purposes* is not included in agricultural water services, but it is worth mentioning, especially in view of its use in horticulture (i.e., as a source of thermal energy for heating greenhouses, among others).<sup>14</sup>

### 3. Landscape-based water management

“Landscape-based water management”<sup>15</sup> is a water management approach to address the accumulating damage in the central area of the Hungarian lowlands (Alföld) and to improve ecosystem services, based on rethinking land use, partial restoration of near-natural water flows and the continuation of a landscape-based management approach close to nature:

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are not considered as their significance is negligible in Hungary. *Summary of the River Basin Management Plan of Hungary*, 3<sup>rd</sup>, pp. 56–57 and 59; c.f. VGT2, pp. 246–247; J.E. Szilágyi, *A mezőgazdasági vízjog*, [in:] J.E. Szilágyi (ed.), *Agrárjog*, Miskolci Egyetemi Kiadó, Miskolc 2017, p. 126.

<sup>12</sup> Section 41 of Annex 1 to the WMAAct.

<sup>13</sup> *The Second Hungarian River Basin Management Plan*, pp. 246–247.

<sup>14</sup> In spring 2013, the legislator abolished the general obligation to recycle *thermal water extracted for energy recovery*, in support of the horticulture sector. As the background to that issue, see President of the Republic, National Assembly Paper No. T/9194/8, 2009. As the background to the current legislation, see: WMAAct, Sections 15(3), 15/C(8), Annex 1, point 16; Government Decree No. 147/2010, Sections 10(3), 11, 28/A and 77/A; KvVM Decree No. 101/2007, Sections 2(e), 5/A, 10 and 11. For an analysis of the above, see: E. Farkas Csamangó, *The utilisation of geothermic energies from a legal aspect*, “Journal of Agricultural and Environmental Law” 2007, Vol. 2, No. 3, pp. 3–10.

<sup>15</sup> J.E. Szilágyi, E. Dobos, P. Szűcs, *Az öntözéses gazdálkodásról szóló törvény a tájsemléltű vízgazdálkodás tükrében*, “Pro Futuro” 2020, Vol. 10, No. 1, pp. 50–53.

The concept of landscape-based water management, which has numerous precedents, is discussed as such in the scientific strategy of the Hungarian Academy of Sciences, entitled Challenges and Tasks in the National Water Research Programme (hereinafter: 'MTA 2019')<sup>16</sup> as a possible solution to the [...] challenges raised by [...] the Kvassay Jenő Plan (National Water Strategy; hereinafter: 'KJT 2017').<sup>17</sup> Landscape-based water management is a specific Hungarian extension of the concept of adaptive water management embedded in integrated water management (Szilágyi 2018),<sup>18</sup> a response to a specific Hungarian system of issues, which may, with appropriate adjustments, also be applied to water management challenges in other countries and regions.<sup>19</sup>

The policy and literature background to landscape-based water management was discussed in more detail in a previous article.<sup>20</sup> Based on the summary conclusions set out in that article, I would like to emphasize the following points in order to better explain the essence of the irrigation solution I consider to be ideal:

- (a) The implementation of the concept of landscape-based water management must also be shaped by the needs and concerns of a number of other policies. In other words, the concept of landscape-based water management can only be successfully implemented in a broader context, understood

<sup>16</sup> A. Engloner, M. Vargha, A. Báldi, J. Józsa (eds.), *A Nemzeti Víz tudományi Kutatási Program kihívásai és feladatai*, MTA Ökológiai Kutatóközpont, Tihany 2019 (hereinafter: MTA 2019).

<sup>17</sup> *Jenő Kvassay Plan or National Water Strategy*, based on Government Decision No. 1110/2017 (III.7.) on the adoption of the *National Water Strategy and the Action Plan* for its implementation, the KJT was published on the Government website by the Ministry of Interior in April 2017.

<sup>18</sup> J.E. Szilágyi, *Vízszemléletű kormányzás – vízpolitika – vízjog*, Miskolci Egyetemi Kiadó, Miskolc 2018, p. 34.

<sup>19</sup> J.E. Szilágyi, E. Dobos, P. Szűcs, *A tájszemléletű vízgazdálkodás hidrogeológiai, talajtani és jogi aspektusai*, "Hidrológiai Közlöny" 2020, Vol. 100, No. 1, p. 41.

<sup>20</sup> J.E. Szilágyi, E. Dobos, P. Szűcs, *A tájszemléletű vízgazdálkodás...*, *op. cit.*, pp. 42–43.

in terms of the three dimensions of sustainable development (environmental, social and economic). That, however, is not possible in the absence of well-functioning *water governance*,<sup>21</sup> which means that the concept of the study must be addressed within a broader system, which goes beyond water policy and water management. In this respect, there appears to be a particularly wide gap again between environmental nature conservation interests and economic policy interests based on the concept of necessary growth.

- (b) It is a Hungarian peculiarity that there is a significant overlap between the areas affected by the three types of major water damage events (floods, inland water and drought). While the problem is not limited to the Tisza catchment area, it is the largest area affected.<sup>22</sup>
- (c) In Hungarian water management, it is precisely in the light of the above-mentioned system of problems that an opinion<sup>23</sup> has been formed, which regards the accumulation of water-related damage as an unintended consequence of the regulation of the Tisza in the 19th century. It is clear that a complex system of problems can only be tackled by a complex approach. Referring to that complexity, the KJT 2017 explains that *water policy and water management are inseparable from land use and landscape use... demands on water conditions are largely manifested in terms of land use*.<sup>24</sup>

<sup>21</sup> In that context, see: World Water Assessment Programme, *Water for People: Water for Life*, The United Nations World Water Development Report, UNESCO–Berghahn Books, 2003; MTA 2019; J.E. Szilágyi, *Vízszemléletű kormányzás...*, *op. cit.*

<sup>22</sup> In this context, it is also important to note that there is a very strong correlation between climate change and the extent of freshwater-related risks (e.g., floods) (see: *Climate Change 2014: Contribution of Working Group II to the Fifth Assessment Report of the IPCC*, Cambridge University Press, Cambridge–New York 2014), largely based on the assumption that climate change is accelerating the hydrological cycle (World Water Assessment Programme, *Water in a Changing World*, The United Nations World Water Development Report 3, UNESCO–Earthscan, Paris–London 2009).

<sup>23</sup> For example: L. Somlyódy (ed.), *Magyarország vízgazdálkodása*, Köztisztviselői Stratégiai Program, MTA, Budapest 2011, pp. 26–27.

<sup>24</sup> *Kvassay Jenő Plan*, pp. 22, 62 (hereinafter: KJT 2017).

- (d) In response to the system of problems, and recognizing the potential of green infrastructures and institutions without infrastructure for water management (the latter including legal instruments<sup>25</sup>), instead of an unlimited development of dams, it is worth considering a partial restoration of near-natural water flows in certain places and the continuation of a (landscape) management close to nature.<sup>26</sup> By doing so, we should essentially achieve that any surplus water arriving in Hungary, for example in the form of floods, should be retained within the national borders for subsequent periods of water scarcity due to climatic reasons. In the context of water retention, the concept of landscape-based water management aims to rely on a variety of tools, i.e. water retention is not based solely on the use of dams and artificial reservoirs.<sup>27</sup> For example, in relation to drought management, it is important to highlight that irrigation is not the only tool considered by the papers discussing the topic. Instead, a change in land use is typically mentioned as an important option,<sup>28</sup> while these papers also call for further improvements in current irrigation practices.<sup>29</sup> Moreover, if landscape-based water management is optimally implemented, it may be fairly claimed that irrigation is not the primary method of meeting agricultural water needs under this concept; in other words, water balance is hopefully achieved at the landscape level.
- (e) It should be stressed that landscape-based water management goes beyond the area of the floodplain and the flood basin

<sup>25</sup> See: MTA 2019; J.E. Szilágyi, *Vízszemléletű kormányzás...*, *op. cit.*, pp. 123–128.

<sup>26</sup> See: KJT 2017, p. 92.

<sup>27</sup> See, for example: P. Balogh, *Árvízvédelem és gazdálkodás*, [in:] A. Tóth (ed.), *Tiszavölgyi tájváltozások*, Kisújszállás 2003, pp. 127–142; L. Somlyódy, *Magyarország vízgazdálkodása*, *op. cit.*; G. Ungvári, A. Kis, J. Rákosi, *Gazdaságsszabályozási koncepció: Intézkedési javaslatok az ex ante feltételek teljesítésére és az intézkedési program követelményei szerint rendszerezve*, the Hungarian part of the Danube river basin, River Basin Management Plan, 2015, Annex 8-5, 2015; MTA 2019.

<sup>28</sup> KJT 2017, p. 92.

<sup>29</sup> See, for example: L. Somlyódy, *Magyarország vízgazdálkodása*, *op. cit.*; J. Tamás, *Az aszály*, "Magyar Tudomány" 2017, No. 10, pp. 1228–1237.

of a river, covering a larger area;<sup>30</sup> for the Tisza, for example, a significant part of the Alföld is affected (the exact territorial delimitation is, however, still open to question).

- (f) Identifying the measures, tools and associated costs to achieve landscape-based water management is an important element of its feasibility,<sup>31</sup> as is the issue of financing. It is also a good idea to understand the costs of implementation by understanding the costs of the failure to implement landscape-based water management. Staggering the costs over time, i.e. applying the principle of gradience in practice, can go a long way towards making them more acceptable to society.<sup>32</sup>

In view of the above, the most interesting issues from the perspective of landscape-based water management are the irrigation development plans and the environmental district plans, which will be presented in more detail below in the context of the Hungarian Irrigation Act of 2019.

#### 4. Legal requirements for agricultural irrigation

The timeliness and importance of the legal regulation of the area are illustrated by the fact that there have been huge changes in the area in Hungary in recent years. By way of introduction, it is important to point out that the legal regulation of agricultural irrigation is an extremely diverse discipline, which means that provisions regarding

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<sup>30</sup> See, for example: *An Integrated Concept for Spatial Development, Rural Development and Environmental Management in the Tisza Region*. The concept was drawn up under the professional guidance of the Hungarian Office for Area and Regional Development and the Ministry of Agriculture and Rural Development under a contract with the National Directorate General for Environment, Nature Conservation and Water Management. The concept was prepared by VÁTI Kht., MTA RKK ATI and VIZITERV Consult Kft. Budapest, closed: May 2004. See also: KJT 2017.

<sup>31</sup> G. Ungvári, A. Kis, J. Rákosi, *Gazdaságsszabályozási koncepció...*, op. cit.; MTA 2019.

<sup>32</sup> M. Honti, J.E. Szilágyi, G. Ungvári, *Vízstudományi program 6. fejezet – Társadalomtudományi kihívások: A vízzséméletű kormányzás – water governance*, manuscript, MTA Water Science Coordination Group, 31 March 2017.

agricultural irrigation have been laid down in numerous pieces of legislation. In view of this, a presentation (subsection 4.1) of the *legal framework* for irrigation is followed by (subsection 4.2) various *basic concepts* and institutions related to irrigation; after that, (subsection 4.3) we address the *ownership and use issues* of irrigation, while the subsection 4.4 reviews the planned operation of agricultural irrigation; subsection 4.5 evaluates the *financing rules* for agricultural irrigation and, finally, subsection 4.6 summarizes the *types of aquifers* available for agricultural irrigation.

#### 4.1. SYSTEM OF LEGISLATION ON AGRICULTURAL IRRIGATION

The most important rules at the level of Acts and Decrees are listed below. It should be stressed, however, that the following is not an exhaustive list, and serves only as a reference point.

First of all, one should mention the Hungarian Constitution, the Fundamental Law. Many of its provisions also concern agricultural irrigation, of which the following are highlighted below, without claiming to be exhaustive. Under Article P) of the Fundamental Law, natural resources, including water resources, are the common heritage of the nation, the protection, maintenance and preservation of which for future generations are the duty of the State and of all.<sup>33</sup> Under Article 38 of the Fundamental Law, the property of the State and local governments constitutes national assets. The management and protection of national assets shall aim at serving the public interest, meeting common needs and preserving natural resources,

<sup>33</sup> J.E. Szilágyi, *The Protection of the Interests of Future Generations in the 10-Year-Old Hungarian Constitution, With Special Reference to the Right to a Healthy Environment and Other Environmental Issues*, "Journal of Agricultural and Environmental Law" 2021, Vol. 16, No. 31, pp. 130–144; E. Krajnyák, *Hungary: A Progressive Approach to the Protection of the Environment and Future Generations in a Traditional Constitution*, [in:] J.E. Szilágyi (ed.), *Constitutional Protection of the Environment and Future Generations: Legislation and Practice in Certain Central European Countries*, Central European Academic Publishing, Miskolc–Budapest 2022, pp. 203–248; A. Raisz, *A Constitution's Environment, Environment in the Constitution: Process and Background of the New Hungarian Constitution*, "Est Europa" 2011, special edition, pp. 37–70; etc.

as well as at taking into account the needs of future generations. The requirements for preserving and protecting national assets and for the responsible management of national assets shall be laid down in a cardinal Act (the special feature of a cardinal Act is that, instead of a simple majority, it requires the support of two thirds of MPs present). In accordance with that provision, the National Assets Act, which also sets out important rules on water, was adopted and is described below.

The *National Assets Act* (NAAct)<sup>34</sup> is of paramount importance for both the State and local governments in relation to water ownership. In many respects, the regulation of the ownership of water, water facilities and other related matters is a new phenomenon. Formerly, provisions on this subject were also set out in the *former Civil Code*<sup>35</sup> and the *Water Management Act* (WMAct)<sup>36</sup> (the latter of which still contains provisions concerning *water and water facilities owned by the property owner*).<sup>37</sup> One of the most important changes in this respect is that the most important set of waters owned by the State and local governments is now protected by a cardinal Act. The NAAct, which also refers back to the waters and public water facilities transferred into the ownership of local governments, which were defined in the *Assets Transfer Act* (ATAct)<sup>38</sup> adopted after the change of regime, defines *which* surface and subsurface aquifers, canals, reservoirs and water facilities (a) constitute the *exclusive property* of the state or local governments;<sup>39</sup> however, (b) the WMAct also introduced the category of *marketable State-owned waters and water facilities*).<sup>40</sup> The Act also specifies (c) the *exclusive economic activities* of the State and local governments. These include, *in the*

<sup>34</sup> See: Act CXCVI of 2011 on National Assets (hereinafter: NAAct).

<sup>35</sup> Act IV of 1959.

<sup>36</sup> See: Act LVII of 1995 on Water Management.

<sup>37</sup> Section 6(4) of the WMAct The Water Associations Act (hereinafter: WAAct) also recognizes the category of *works owned by the water association*; Section 1(33) of the WAAct.

<sup>38</sup> Notably, Act XXXIII of 1991 on the transfer of certain State-owned assets to local governments.

<sup>39</sup> Sections 4(1)(d) and (e) and 5(3)(d) of the NAAct.

<sup>40</sup> See: Section 6(6) of the WMAct.

*case of the State*, the creation and operation of canals and, in the case of *local governments*, the operation of water bodies and public water facilities exclusively owned by local governments, which were transferred to them under the ATAct.<sup>41</sup> Several other Acts,<sup>42</sup> including the Water Management Act, which is presented below, apply according to the principles set out in the NAAct.

Hungary's *Environmental Protection Act* (EPAct)<sup>43</sup> plays a major role in enforcing the integrative approach required by modern environmental protection and environmental law. It sets out rules to enforce the principle of integration (notably a systemic approach), a framework for water protection, a framework for financial instruments relevant to the principle of cost recovery, requirements for environmental impact assessment, etc.

According to the *Water Management Act* (WMAct), which has been repeatedly amended in recent years, (a) the State's water management-specific tasks include (but are not limited to) putting into place financing, cost management and pricing policies for water management, as well as the operation of publicly owned water facilities.<sup>44</sup> The WMAct (b) also specifies the tasks of local governments in the field of water management; for example, it sets out that local governments carry out official duties in this area.<sup>45</sup> While a significant part of the provisions on the ownership of waters have been transferred to the NAAct, the WMAct (c) still contains rules applying to the *waters and water facilities owned by the owner of a property*.<sup>46</sup> Of particular importance for agricultural irrigation is the matter of (d) *water supply easement* regulated by the WMAct (e.g., for the purpose of installing and operating a water facility on the property) and *water use easement* (for the purpose of connecting to a water facility).<sup>47</sup> (e) In addition to the above, the WMAct also provides for a number of other issues (*water resource*

<sup>41</sup> See: Section 12(1)(d) and (2)(d) and (f) of the NAAct.

<sup>42</sup> See: Acts detailed in Section 16(1)(a), (c)–(d) and (o) of the NAAct.

<sup>43</sup> Act LIII of 1995 on the General Rules for the Protection of the Environment.

<sup>44</sup> Section 2(1)(a), (b) and (e) to (i) of the WMAct.

<sup>45</sup> Section 4(1)(d) of the WMAct.

<sup>46</sup> Section 6(4) of the WMAct.

<sup>47</sup> Sections 20 and 27 of the WMAct.

*tax, agricultural water service charges*, operation and maintenance of irrigation watercourses and canals,<sup>48</sup> etc.) related to agricultural irrigation, which will be dealt with in more detail later in this study. The WMAAct also sets out important rules on (f) the rank of agricultural irrigation in *the order of satisfying water demands*<sup>49</sup> and in *the order of water use restrictions* in relation to other uses of water. In this section, however, we consider it important (g) to make a few comments on the regulation of *water management associations*.<sup>50</sup> First of all, it is important to note that the name essentially refers to two distinct legal entities; notably, water utility cooperatives and *water associations*, which is regulated in detail in another Act. For agricultural irrigation, in particular the latter is important.

According to the new *Water Associations Act* (WAAAct),<sup>51</sup> which was re-enacted after 2013, water associations, (a) as economic organizations that can be classified as public benefit organizations, (b) carry out important tasks in agricultural irrigation, on works owned by the *water association* or by local governments or private entities, where applicable on the *basis of a management contract* entered into with the owner.<sup>52</sup> It is important to note, however, that water associations are just one possible way of fulfilling the public tasks of territorial water management.<sup>53</sup> One of the innovations

<sup>48</sup> See, for example: Section 22/A of the WMAAct.

<sup>49</sup> The order in which water needs are met is: (a) subsistence drinking and public health, disaster relief; (b) production and service activities for medical purposes and directly serving the population; (c) animal husbandry and fish production; (d) nature conservation; (e) *irrigation* (in the case of agriculture, see also Section 9 of KHVM Decree No. 2/1997); see also: Section 6(5) of KHVM Decree No. 2/1997, which provides for the water use season for irrigation, notably, that it runs, as a general rule, from 1 March to 31 October; (f) economic water use; (g) other water uses (e.g., sports, recreation, leisure, bathing, tourism). The order of water use restrictions is the inverse of the order of the satisfying of needs. Section 15(4) and (5) of the WMAAct.

<sup>50</sup> Sections 34 and 44/A of the WMAAct. For a relevant analysis, see: J.E. Szilágyi, *Vízjog, op. cit.*, pp. 220–224.

<sup>51</sup> Act CXLIV of 2009 on Water Associations See also: Government Decree No. 160/1995 (XII.26.) on water management associations, in particular Sections 24 and 25.

<sup>52</sup> Sections 1(32) and (33), 3(2), 4(1)(d), 41 and 45 of the WAAAct.

<sup>53</sup> Section 3(1) of the WAAAct, Section 24 of Government Decree No. 160/1995.

of the Act on Irrigation Farming (IFAct), adopted in late 2019, is precisely in this area, as it enabled the establishment of so-called *sustainable water management communities* (this is a new name, in force at the time of writing this study; the name has been modified at the request of the European Union).<sup>54</sup> *Sustainable water management communities*, established by the Irrigation Farming Act (originally called “irrigation communities”) on the model of Austrian irrigation cooperatives, are the new bottom-up co-ordination communities for the implementation of irrigation farming.<sup>55</sup> A company or cooperative can be recognized as a sustainable water management community<sup>56</sup> if at least 75 per cent of its members are farmers with the right to use a parcel of land within the irrigation district. Natural or legal persons providing agricultural water services in the irrigation district may become members of the sustainable water management community. The sustainable water management community shall ensure, within the irrigation district, the possibility of irrigating: (a) at least 100 hectares for arable crops and industrial vegetables, of which up to 10 percent may be permanent grassland (grazed, mown), (b) at least 10 hectares for horticultural vegetables and plantations (fruit, vines), aromatic, medicinal and herbaceous plants. A company or cooperative which meets these territorial quantitative criteria and which is made up exclusively of farmers may also be recognized as a sustainable water management community if the right to use the land in the irrigation district is held by the company or cooperative in addition to its members. The right of use of a company or cooperative may cover up to 25 percent of the area of land parcels within the irrigation district. Producer groups that meet the above territorial quantitative criteria should be recognized as sustainable water management communities.<sup>57</sup> Applications for

<sup>54</sup> Sections 7 to 9 of Act CXIII of 2019 on Irrigation Farming (hereinafter: IFAct).

<sup>55</sup> National Assembly Paper No. T/7845, submitted: 29.10.2019, detailed explanatory memorandum, Sections 9 to 11, p. 13.

<sup>56</sup> The detailed rules for recognition are provided for by the legislator in a Government Decree on the basis of the authorisation under Section 15(2)(b) of the IFAct: Government Decree No. 302/2020 (VI.29.) implementing the Act on Irrigation Farming.

<sup>57</sup> Section 7(1) to (3) of the IFAct.

the recognition of sustainable water management communities are submitted to the irrigation authority, which submits them to the Minister in charge of agricultural policy, together with its professional opinion. Sustainable water management communities are then recognized by the Minister.<sup>58</sup> In order to encourage the establishment of sustainable water management communities, the Rural Development Programme has a new call for proposals to support sustainable water management communities, with an intensity of 90 percent, to support the preparation of water management plans and documentation required for licensing.<sup>59</sup>

As regards water management, it is important to give particular emphasis to the 2013 Act amending several water management laws (including the WMAAct and the WAAAct, as mentioned above).<sup>60</sup> The 2013 amendment<sup>61</sup> (a) changed the previous asset manager-operator structure by transferring the asset management of marketable public facilities from water associations to water management directorates, and (b) enabled that, by a specific date, (b1) watercourses and canals in municipal ownership should be offered to the water management directorate for operation, or (b2) the water management directorate also had the opportunity, on the basis of an investigation, to initiate with the water management authority that it should be designated as the operator of a canal or watercourse. According to a 2020 amendment to the WMAAct,<sup>62</sup> if the water management body determines on the basis of an investigation that a section of a watercourse or canal that obstructs the conveyance of irrigation water or drainage (a) is not in public ownership, (b) cannot be replaced by drainage via another route, (c) its use is in the public interest for agricultural water services or drought or water damage relief, and (d) its intended use requires public water management development, it will initiate the acquisition of ownership of the area for the benefit of the

<sup>58</sup> Section 8(1) and (2) of the IFAAct.

<sup>59</sup> Nemzeti Agrárgazdasági Kamara, *Öntözést támogató hazai és uniós ösztönzők – A fenntartható vízgazdálkodási közösség tükrében*, 19.07.2023.

<sup>60</sup> Act No CCXLIX of 2013 amending certain Acts on water management.

<sup>61</sup> See: former Sections 45/D to G of the WMAAct.

<sup>62</sup> See: Act XXXI of 2020 amending certain Acts to strengthen the security of citizens.

State.<sup>63</sup> In the absence of such acquisition of ownership, the water management body shall initiate with the water management authority that it should be designated as the operator or maintainer of the non-publicly-owned watercourse or canal section which obstructs the conveyance of irrigation water or obstructs drainage. The water management authority designates the water management body as the operator and maintainer if (a) it determines that the use of the non-publicly-owned watercourse or canal is in the public interest for the purpose of agricultural water services or drought or water damage relief, and (b) the neglected condition of the watercourse or canal impedes the drainage or irrigation water supply necessary for agricultural water services or drought or water damage relief.<sup>64</sup>

The provision of the IFAcT, which provides that local governments may transfer to the State the *exercise of rights of ownership of tertiary works*<sup>65</sup> owned by the local government continued to improve the efficiency of water transfers between properties.<sup>66</sup> The irrigation administration authority acts on behalf of the State, which may itself operate these works, or may transfer them for use to others or place them in trust.<sup>67</sup>

In addition to the transfer of the exercise of owners' rights over tertiary works, the Irrigation Management Act (IFAcT)<sup>68</sup> has also redefined *irrigation easement*<sup>69</sup> and the rules for *connection to tertiary works*<sup>70</sup> in order to improve the efficiency of water transfers.

<sup>63</sup> New Section 22/A (2) of the WMAcT. The section of watercourse or canal thus transferred into public property is considered a water facility for public use; new Section 22/A (3) of the WMAcT.

<sup>64</sup> New Section 22/A (4) of the WMAcT.

<sup>65</sup> *Tertiary works*: means a water facility for irrigation or dual use, providing operating-level agricultural water supply and draining excess water from the irrigation district, located between a water facility managed and operated by water management bodies and the place where agricultural irrigation needs actually arise; Section 1(1) of the IFAcT.

<sup>66</sup> Section 12(1) to (3) of the IFAcT.

<sup>67</sup> Section 12(5) of the IFAcT.

<sup>68</sup> Sections 2 to 6 of the IFAcT.

<sup>69</sup> Sections 2 and 3 of the IFAcT. It was formerly provided for under Section 26 of Act CCXII of 2013 on certain provisions and transitional rules related to the Land Transactions Act (hereinafter: LTAcT).

<sup>70</sup> Section 4 of the IFAcT.

Moreover, and primarily in order to reduce the administrative burden for farmers wishing to irrigate, the IFAc allows for the creation of *irrigation development areas*<sup>71</sup> based on *irrigation development plans*,<sup>72</sup> and *irrigation districts*<sup>73</sup> based on *environmental district plans*<sup>74</sup> and adapted to the operational area of each sustainable water management community. The primary aim of the legislator is to facilitate the willingness of individual farmers to irrigate by avoiding the need to individually obtain numerous permits, and instead to provide a much simpler way of establishing and operating irrigation management, in accordance with the plans of irrigation development areas or irrigation districts. All of the above is discussed in more detail below.

While the provisions of the *Land Transactions Act* (LTAct)<sup>75</sup> and the *Farmland Protection Act* (FPAct)<sup>76</sup> may seem of minor importance, it is important to draw attention to them, precisely because of the combined role of land and water in agriculture. These laws provide for rules mainly in view of the economic importance of agricultural irrigation, i.e. environmental aspects are not primarily enforced in Hungarian law through the provisions of these laws.<sup>77</sup> Under the LTAct, one of the conditions for the right to acquire ownership of agricultural land is an undertaking by the acquiring party not to use the land for any other purpose. However, the LTAct *permits the use of land for other purposes, provided that such purpose* is the construction of *irrigation* facilities, irrigation canals and

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<sup>71</sup> *Irrigation development area*: means a medium-level planning unit, which may include several irrigation districts, designated *ex officio* by the irrigation administration body; Section 1(4) of the IFAc.

<sup>72</sup> Section 5 of the IFAc.

<sup>73</sup> *Irrigation district*: means the area defined in the decision on the recognition of a sustainable water management community, which includes land parcels in unincorporated areas used for the operation of the sustainable water management community and intended to be irrigated by the members of the sustainable water management community; Sections 1(5) and 9 of the IFAc.

<sup>74</sup> Section 10 of the IFAc.

<sup>75</sup> Act CXXII of 2013 on transactions in farmland and forestry land.

<sup>76</sup> Act CXXIX of 2007 on the Protection of Farmland.

<sup>77</sup> See, however: Section 38 of the FPAct (on the quality of irrigation water) and Section 50(2)(e) and (f) (on the Soil Protection Plan).

inland water canals, or the construction of water supply canals and reservoirs for landscape management.<sup>78</sup> The FPAct, on the other hand, provides for the possibility<sup>79</sup> that, where irrigation canals or reservoirs for irrigation purposes are established, *no land protection levy is payable* for such other use of farmland.

Agricultural irrigation issues are dealt with, directly or indirectly, in numerous lower-level pieces of legislation, lower than Acts, in the hierarchy of legal sources. These include, but are not limited to the following: (a) from the point of view of *the operation of water facilities*, KHVM Decree No. 2/1997 (II.18.) on the operation of agricultural water services works (hereinafter referred to as: “Decree No. 2/1997”) is of major significance; (b) from the point of view of the *use of water and water facilities for irrigation, among other purposes*, the following pieces of legislation are of particular importance:<sup>80</sup> Gov. Decree No. 314/2005 (XII.25.) on the environmental impact assessment and the uniform environmental use permit procedure (“Decree No. 314/2005”), Gov. Decree No. 72/1996 (V.22.) on exercising the powers of the water management authority (“Decree No. 72/1996”), Gov. Decree No. 147/2010 (IV.29.) laying down general rules for activities and facilities for the utilisation, protection and remediation of damage to water (“Decree No. 147/2010”), and KvVM Decree No. 101/2007 (XII.23.) on the professional requirements for intervention in subsurface water resources and water well drilling (“Decree No. 101/2007”);<sup>81</sup> (c) from the point of view of the *financing background of agricultural irrigation*, the following pieces of legislation are of particular importance: Gov. Decree No. 115/2014 (IV.3.) on the pricing of agricultural water services (“Decree No. 115/2014”) and KHVM

<sup>78</sup> Section 13(1) and (3)(b) to (d) of the LTAct.

<sup>79</sup> Section 21(3)(b) of the FPAct. In fact, the amount of the land protection levy is increased by 50 percent if agricultural land prepared for irrigation is used for other purposes; Section 23(2) of the FPAct.

<sup>80</sup> See also, for example: Gov. Decree No. 219/2004 on the protection of subsurface water and Gov. Decree No. 220/2004 on the rules for the protection of surface water quality.

<sup>81</sup> See also Decree No. 41/2017 (XII.29.) of the Minister of Interior on the content of the documentation required for the water permit procedure.

Decree No. 43/1999 (XII.26.) on the calculation of the water resource tax (“Decree No. 43/1999”); (d) from the point of view of *the organisational definition of irrigation*, of particular importance is Gov. Decree No. 158/2019 (VI.28.) on the tasks of the National Land Center (“Decree No. 158/2019”), which assigns the coordination tasks of irrigation, including the operation of tertiary works, to the National Land Center;<sup>82</sup> (e) Gov. Decree No. 302/2020 (VI.29.) (“Decree No. 302/2020”) was adopted to implement Act CXIII of 2019 on Irrigation Farming, which lays down, among others, rules on the establishment of irrigation easements and the related compensation issues, as well as the procedure for the recognition of “irrigation communities” (currently referred to as “sustainable water management communities”).

#### 4.2. CONCEPTUAL BASIS OF AGRICULTURAL IRRIGATION

In the context of agricultural irrigation, it is important to briefly discuss the legal meaning of irrigation, the water facilities used for agricultural irrigation and, finally, the different levels of irrigation.

I. (*Agricultural*) *irrigation* is defined by the law as the use of water to *artificially replenish* natural *precipitation* on agricultural or forestry land authorised by the water management authority or to maintain grassland that is irrigable under the legislation.<sup>83</sup> As for the legal concept, we wish to put forth the following comments. (a) The grassland element of the concept has agri-environmental implications beyond classical agricultural production. (b) Two sub-types of irrigation are of particular relevance in the legislation. They are *simplified irrigation water use*,<sup>84</sup> and *micro-irrigation*,<sup>85</sup> both of which are exempted from numerous irrigation-related requirements,

<sup>82</sup> Section 3 of Decree No. 158/2019.

<sup>83</sup> Section 2(24) of Decree No. 147/2010.

<sup>84</sup> Sections 2(10a) and 60(1a) and (1b) of Decree No. 147/2010, Section 5(12) and (13) of Decree No. 72/1996.

<sup>85</sup> Section 2(22) of Decree No. 147/2010

the former due to economic interests and the latter because of its environmental benefits that are more favourable than and different from those of general irrigation practices. (c) In the case of wells, the type of demand for water may be relevant, since, provided that various other conditions are met, the establishment and operation of a well by a private individual to meet *domestic drinking water and other household needs* only requires a permit from the local notary, rather than a more complex *water permit* from the regional water management authority.<sup>86</sup> (d) Finally, with regard to the concept of irrigation, it is important to note that agricultural irrigation is not the same as *watering*.<sup>87</sup> Watering can be of several types, for example, in the context of a park, it can be considered *as a welfare use of water* and, as such, may be subject to different rates of *water resource taxes*.

II. Among the *water facilities* for agricultural irrigation,<sup>88</sup> *wells*, which are important for access to subsurface water resources, and *agricultural water supply works*,<sup>89</sup> which help to use surface water, deserve special mention. Of these two types, the latter is considered to have a more important role under the relevant water management and environmental regulations (as the use of surface water for irrigation is a priority). Among water facilities, as opposed to the category of so-called *private purpose water facilities*,<sup>90</sup> there is a separate category of so-called *public purpose water facilities*, which essentially serve the water management tasks of the state or local government as defined by law.<sup>91</sup>

<sup>86</sup> Sections 1(1) and (2), 24(1)(a) and (6) Decree No. 72/1996.

<sup>87</sup> In relation to the *use of drinking water for watering*, see also: the repealed KöViM Decree No. 8/2000 (X.18.) on the preferential watering charge in connection with the use of publicly owned water utilities, and KHVM Decree No. 47/1999 (XII.28.) on the fees payable for drinking water supplied from state-owned water utilities and for the use of state-owned sewerage.

<sup>88</sup> For the definition of water facility, see point 26 of Annex 1 to the WMAAct.

<sup>89</sup> Section 1(4) of Decree No. 115/2014.

<sup>90</sup> Point 26(b) of Annex 1 to the WMAAct.

<sup>91</sup> Point 26(a) of Annex 1 to the WMAAct; c.f. *agricultural water management works for public purposes*; Section 1(13) of the WMAAct.

III. From the point of view of irrigation development, the literature distinguishes between so-called on-parcel irrigation (i.e., irrigation within the property or land parcel) and off-parcel irrigation.<sup>92</sup> The responsibility for *on-parcel irrigation development* lies with the *landowner (user)*, while the decision-maker will also allocate *EU funding*.<sup>93</sup> In contrast, in the case of *off-parcel irrigation development*, the new Hungarian irrigation development concept provides for a *stronger involvement by the State* than before.<sup>94</sup>

#### 4.3. OWNERSHIP AND USE ISSUES

The following sections deal with the ownership of aquifers and water facilities relevant to agricultural irrigation, followed by operation and maintenance issues and, finally, certain easement issues related to agricultural irrigation.<sup>95</sup>

##### 4.3.1. *Property issues in agricultural irrigation*

The ownership of aquifers and water facilities important for agricultural irrigation is provided for as follows.

I. The *owner of the property* owns (a) *watercourses* that originate and flow into a drain within the boundaries of the property, (b) the natural *still water bodies* (lakes, backwaters) within the boundaries

<sup>92</sup> *National Water Strategy on water management, irrigation and drought management*, prepared by Deputy State Secretariat for Water Affairs, State Secretariat for the Environment, Ministry of Rural Development, November 2013, p. 22.

<sup>93</sup> *National Water Strategy on water management, irrigation and drought management*, p. 22, p. 46.

<sup>94</sup> *Ibidem*, p. 19.

<sup>95</sup> In this section, only the current legislation is described; on previous legislation, the following excellent works must be mentioned: I. Olajos, *Speciális tulajdonszerzések az erdő- és vízgazdálkodás, valamint a szőlőtermesztés területén*, [in:] Cs. Csák (ed.), *Agrárjog*, Novotni Alapítvány, Miskolc 2008, pp. 116–123; I. Olajos I., *A szerzés tárgya szerint speciális tulajdonszerzési szabályok*, [in:] Cs. Csák (ed.), *Agrárjog*, Novotni Alapítvány, Miskolc 2010, pp. 120–126.

of the property that are not in direct connection with water bodies on any other property, (c) *rainwater* falling onto and remaining within the property, and (d) the *water facilities* within the boundaries of the property and serving private purposes, unless otherwise provided by law.<sup>96</sup> All of the above waters and water facilities can be important for agricultural irrigation.

II. As far as local governments are concerned, the category relevant in terms of agricultural irrigation is *national assets in the exclusive ownership of the local government*. This category includes waters and public-purpose water facilities owned by the local government,<sup>97</sup> which have been transferred to it under a separate Act.<sup>98, 99</sup> In the event of a possible sale of *publicly owned marketable waters and water facilities* described below, the local government or association of local governments concerned has a *right of first refusal*, in proportion to the degree to which they are concerned where more than one municipality is concerned.<sup>100</sup>

III. A significant number of waters and water facilities are *owned by the State*. The following types of public assets are particularly relevant for agricultural irrigation.

III.1. The *exclusive property of the State* shall include: (a) *sub-surface water, natural aquifers* of subsurface water, (b) *abandoned beds* of running water and natural lakes, (c) *newly created islands* in running water and natural lakes, and (d) *running*

<sup>96</sup> Section 6(4) of the WMAc.

<sup>97</sup> This does not include water utilities which constitute *primary assets of a local government with limited marketability*, similarly to the stake of the local government in a company providing a public service in which the local government has a majority holding. These assets are considered to be of limited marketability in the sense that they may only be alienated to the State, another municipality or a municipal association; see: Sections 5(5)(a) and (c) and 5(7)(a) of the NAAc.

<sup>98</sup> See: Act LXV of 1990 and Act XXXIII of 1991.

<sup>99</sup> See: Section 5(3)(d) of the NAAc.

<sup>100</sup> The local government concerned by the right of first refusal is the local government in whose administrative territory or on whose border the water or water facility is located; Section 6(6) of the WMAc.

*waters, stagnant waters, backwaters and natural lakes* as defined in Annex 1 to the NAAct and their beds, and (e) canals, reservoirs, flood protection main protection lines and other *water facilities* as defined in Annex 1 to the NAAct.<sup>101</sup>

III.2. The *State's marketable property* includes all waters and water facilities that are *outside* the scope of ownership detailed above in points I, II and III.1 and are not considered to be unmarketable State-owned waters located in a nature reserve. In the event of their disposal, as mentioned above, the *competent local government* (association of local governments) has *the right of first refusal*.<sup>102</sup>

#### 4.3.2. *Use and operation of waters and water facilities for irrigation*

The use and operation of aquifers or water facilities concerned by irrigation vary depending on their owner.<sup>103</sup>

I. The asset management of exclusive and marketable *public* property has now been unified; notably, all such aquifers and water facilities are now held in trust by the *relevant water management directorate*, which is also responsible for their operation, maintenance and development.<sup>104</sup>

II. It was or is possible to transfer the maintenance and operation of a *municipally-owned* aquifer and water facility to the following entities under a management contract or designation decision.

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<sup>101</sup> Section 4(1) of the NAAct.

<sup>102</sup> Section 6(4) to (6) of the WMAct.

<sup>103</sup> See the relevant provisions of the WMAct, the WAAct and KHVM Decree No. 2/1997.

<sup>104</sup> Section 3(2) and (3) of the WMAct. A certain exception to Section 3(2) of the WMAct is made in Section 3(2a) of the WMAct, which provides that the Minister responsible for public investments acts instead of the water management directorates in certain matters. However, as it is apparent, the relevant tasks are kept within the organisation of the State despite such exceptions.

II.1. In 2014, the water management directorate could take over the maintenance of the canal or watercourse free of charge, under a *management contract* on the basis of an *offer by the municipal government*.<sup>105</sup>

II.2. In 2014, and later, on the basis of an amendment of legislation, the *water management directorate* had the opportunity to initiate, *on the basis of its own investigation, that it should be designated by the water management authority* as the operator and maintainer. Instead of a designation, the parties may enter into a *management contract*.<sup>106</sup>

II.3. Municipal aquifers and water facilities may also be maintained and operated by the *water association* under a *management contract*.<sup>107</sup>

II.4. As mentioned above, the local government *may transfer to the State the exercise of the owner's rights over a tertiary work* owned by the local government.<sup>108</sup> The State is represented by the irrigation management body (in this case the National Land Center<sup>109</sup>). The irrigation management body concludes a *gratuitous contract* with the owner of the tertiary works on *taking over the management and maintenance of the tertiary works*. The irrigation management body is not entitled to transfer the ownership of the tertiary works as part of its exercise of the owner's rights.<sup>110</sup> As part of the exercise of the owner's rights, the irrigation administration body (a) *may itself operate* the tertiary works, or (b), if the irrigation of the areas supplied by the tertiary works can otherwise be ensured more efficiently and financially more advantageously, it *may transfer the tertiary*

<sup>105</sup> Section 45/D–E of the WMAct.

<sup>106</sup> Formerly: Sections 45/D and F of the WMAct. More recently: Sections 22/A to C of the WMAct.

<sup>107</sup> Sections 1(32) and (33), 3 and 45 of the WAAct.

<sup>108</sup> Section 12(1) to (3) of the IFAct.

<sup>109</sup> Section 3(g) of Decree No. 158/2019.

<sup>110</sup> Section 12(5) of the IFAct.

works *for use on the basis of a lease, usufructuary lease or service agreement or may put them into trust.*<sup>111</sup> With regard to the latter cases (b), it is the intention of the drafters of the Irrigation Act that *sustainable water management communities* (as they are currently called) “[should] also become eligible to operate tertiary works within the irrigation district”.<sup>112</sup>

III. In the case of assets<sup>113</sup> owned by a water association, the water association (a) may itself use its water facilities suitable for agricultural irrigation; at the same time, it (b) may also request with the water management authority to designate it as an operator or maintainer, based on *its own investigation*.<sup>114</sup>

IV. In the case of a *private* owner other than the above-mentioned owners, the options are: (a) private use, (b) the water management directorate requesting that the water authority designate the directorate as operator,<sup>115</sup> (c) operation by the water association under a management contract,<sup>116</sup> and (d) *by the setting up of a sustainable water management community, in cooperation with such sustainable water management community*.

#### 4.3.3. *Easements to enable agricultural irrigation and connection to tertiary works*

Watercourses and canals for agricultural irrigation may transport water for agricultural purposes across several parcels of land. At the same time, it often occurs that the property of a user of a land parcel does not have direct access to an appropriate irrigation system. In view of this, in order to ensure the proper functioning of

<sup>111</sup> Section 12(5) of the IFAAct.

<sup>112</sup> National Assembly Paper No. T/7845, submitted: 29.10.2019, detailed explanatory memorandum, Sections 9 to 11, p. 13.

<sup>113</sup> Section 1(33) of the WAAAct.

<sup>114</sup> Sections 1(4), (32) and (33), 3 and 45 of the WAAAct.

<sup>115</sup> Sections 22/A to C of the WMAAct.

<sup>116</sup> Sections 1(32) and (33), 3 and 45 of the WAAAct.

*inter-parcel* irrigation systems, the legislator created various types of easements, listed below.

I. *Water supply easement*: Owners (users) of the property must allow the public water facility to be installed and operated on their property and to carry out the necessary water works on the basis of a decision of the water authority, provided that it does not preclude normal use of the property.<sup>117</sup> The water supply easement must be registered in the land register.<sup>118</sup>

II. *Water use easement*: On request, the water authority authorizes a connection to an existing water facility operating under a water permit, provided that the water facility is fit for or can be made fit for its original purpose and the purpose of the connection.<sup>119</sup> The water use easement must be registered in the land register.<sup>120</sup>

III. *Irrigation easement*: An important consequence of this institution is that “while irrigation cannot be considered as a compulsory task to be carried out by the State or the local government, irrigation farming is a matter of public interest”.<sup>121</sup> In order to engage in irrigation farming, the holder of a water right for a water facility is entitled to an irrigation easement<sup>122</sup> if the intended use of the servient property is not precluded. The irrigation easement is granted to the holder of the water right permit for as long as he continues to operate under that permit. The irrigation easement is established by the water authority in the water establishment or operation permit, which is sent to the land authority for registration in the land

<sup>117</sup> Section 20(1) of the WMAAct.

<sup>118</sup> Section 27 of the WMAAct.

<sup>119</sup> Section 20(2) of the WMAAct.

<sup>120</sup> Section 27 of the WMAAct.

<sup>121</sup> National Assembly Paper No. T/7845, date of submission: 29.10.2019, detailed justification Sections 2 and 3, p. 10.

<sup>122</sup> On the basis of such easement, the owner or user of the servient property is obliged to tolerate that the farmer engaging in irrigation farming on his real estate establishes and operates a linear water facility for irrigation necessary for the continuation of his agricultural activity, carries out the necessary water works and leads through the irrigation equipment; Section 2(1) of the IFAct.

register.<sup>123</sup> The owner of the property is entitled to compensation corresponding to the extent of the restriction; in its decision, the water authority decides on the compensation to be paid to the owner of the property, which is then paid to the owner of the property by the water right holder.<sup>124</sup> The detailed rules for the above are laid down in a separate government decree, Decree No. 302/2020, mentioned above.

IV. The *connection* to an existing *tertiary plant*, which is operating under a water permit, is also intended to facilitate water transfers. This is possible for any farmer if the operating licence holder agrees; the operation is carried out on the basis of a water permit and the connecting farmer agrees to pay the necessary value and cost compensation in proportion to his interest in the use of the water.<sup>125</sup>

#### 4.4. PLANNED MANAGEMENT OF AGRICULTURAL IRRIGATION: COORDINATING BODY, TERRITORIAL UNITS AND DOCUMENTS FOR IRRIGATION PLANNING

In 2019, the State opted for a much more coordinated and better planned irrigation management, given that the supply of adequate irrigation water to individual properties can often only be economically achieved across other properties, and also in view of farmers' demand for a reduction in the number of individual permits issued by the legislator. The recently established National Land Center as the irrigation body was designated as the main operational body for irrigation coordination,<sup>126</sup> while for the implementation of the plan, irrigation development areas and irrigation districts were set up, and it was ordered that a type of plan should be drawn up for each of them as follows.

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<sup>123</sup> Section 2 of the IFAct.

<sup>124</sup> Section 3 of the IFAct.

<sup>125</sup> Section 4 of the IFAct.

<sup>126</sup> Section 3(g) of Decree No. 158/2019.

The two types of plans consist of the irrigation development plan and, in its absence or to provide for a derogation, the environmental district plan;<sup>127</sup> the two plan types concern territorial units of different sizes: the former concerns “irrigation development areas”,<sup>128</sup> while the latter is for “irrigation districts”.<sup>129</sup> *Irrigation development areas* are designated *ex officio* by the irrigation administration body, taking into account the irrigation clusters associated with active surface water bodies, the sub-units of river basin management planning, soil and hydrology, topography and hydrography conditions and the economics of irrigation, according to the coverage of the surface water irrigation water facility; a parcel of land may only be part of one irrigation development area.<sup>130</sup> The *irrigation district* itself is essentially established when the sustainable water management community concerned is set up, by a decision of the Minister recognising the sustainable water management community, taking into account the hydrological, hydrogeological and topographical conditions within the boundaries of the irrigation development area concerned.<sup>131</sup> The irrigation district must be defined in such a way that it should cover as few parcels of land as possible, while ensuring the objectives of a sustainable water management community. The area of an irrigation district must not overlap with the area of another irrigation district.<sup>132</sup>

*Irrigation development plans* are prepared by the irrigation management body for the irrigation development area and become valid

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<sup>127</sup> Detailed rules for the above are laid down by the legislator in a Government Decree on the basis of the authorization under Section 15(2)(a) of the IFAc; see Decree No. 302/2020.

<sup>128</sup> *Irrigation development area*: means a medium-level planning unit, which may include several irrigation districts, designated *ex officio* by the irrigation administration body; Section 1(4) of the IFAc.

<sup>129</sup> *Irrigation district*: means the area defined in the decision on the recognition of a sustainable water management community, which includes land parcels in unincorporated areas used for the operation of the sustainable water management community and intended to be irrigated by the members of the sustainable water management community; Section 1(5) of the IFAc.

<sup>130</sup> Section 5 of the IFAc.

<sup>131</sup> Section 9(1) of the IFAc.

<sup>132</sup> Section 9(2) of the IFAc.

upon official approval. The irrigation development plan includes the natural conditions related to irrigation, topography, hydrography, hydrology and soil conditions in the irrigation development area; taking these into account, the decision approving the irrigation development plan determines the conservation of nature, environmental protection, and soil protection conditions under which irrigation farming can be carried out in the designated area. Irrigation investment in accordance with a valid irrigation development plan and irrigation farming according to the conditions set out in the decision approving the irrigation development plan do not require any environmental, nature conservation, soil protection permit or authorization procedure. The valid irrigation development plan is considered as an official permit or a resolution of the authorities with regard to the nature conservation, environmental protection and soil protection requirements specified therein. The irrigation development plan remains valid for 20 years from the date of its issue. The designation of irrigation development areas and the irrigation development plans must be published on the government's website. Irrigation development areas and irrigation development plans must be reviewed every 5 years and must be amended if there has been any change to the designation criteria or the nature conservation, water management, environmental, or soil protection conditions.<sup>133</sup>

*Environmental district plans* for irrigation districts may be prepared in two cases: first, where there is no irrigation development plan in force for the land parcels concerned and, second, where an irrigation development plan is available but it is intended to derogate from the conditions set out in the irrigation development plan in force for the land parcels concerned.<sup>134</sup> An environmental district plan drawn up by the irrigation management body<sup>135</sup> provides farmers with a similar exemption as the irrigation development plan: the environmental, nature conservation and soil protection requirements for irrigation investments are set out in the decision

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<sup>133</sup> Section 6 of the IFAct.

<sup>134</sup> Section 10(1) of the IFAct.

<sup>135</sup> Section 10(1) of the IFAct.

of the authority approving the environmental district plan, such authority being specified in the decree implementing the IFAc; the environmental district plan enters into force upon approval. The valid environmental district plan is considered as an official permit or a resolution of the authorities with regard to the nature conservation, environmental protection and soil protection requirements specified in it. An irrigation investment in accordance with a valid environmental district plan and irrigation farming according to the conditions set out in the environmental district plan do not require environmental, nature conservation and soil protection authorization or authorization by the competent authorities. The environmental district plan remains valid for 20 years from the date of its issue. Environmental district plans must be reviewed regularly and must be amended if there is any change to the environmental, nature conservation and soil protection conditions. The entry into force of the irrigation development plans does not affect the scope of the environmental district plan.<sup>136</sup>

The administrative burden for farmers can also be reduced by the provisions of the IFAc,<sup>137</sup> which provide that the irrigation management body may, in the water permit procedure, represent the sustainable water management community or the farmer who initiates an irrigation investment in accordance with the Irrigation Act if the investment complies with the irrigation development plan. A similar relief is that a sustainable water management community can arrange for its members to obtain the necessary permits for irrigation, on the basis of a mandate.

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<sup>136</sup> Section 10(2) to (4) of the IFAc.

<sup>137</sup> Section 11 of the IFAc.

#### 4.5. RULES FOR THE BEARING OF COSTS RELATED TO AGRICULTURAL

I. Agricultural irrigation, as a type of water service, is also subject to the *cost recovery principle*<sup>138</sup> mentioned in Article 9 of the WFD.<sup>139</sup> According to a Hungarian version of such legislation, which also applies to agricultural irrigation and specifically to the agricultural water service charge:<sup>140</sup> the pricing policy must be based on the principle of the recovery of costs for water services, depending on the purpose for which the water is used (distinguishing, as a minimum, between domestic, industrial and agricultural needs), taking into account the costs related to the protection of the environment and water resources and the polluter pays principle; the pricing policy should take into account the social, environmental and economic impacts of recovery.<sup>141</sup> Based on the cost recovery principle, the so-called *total economic cost is composed of three cost elements*: the financial cost and two external costs,<sup>142</sup> i.e., environmental and inventory costs. While the cost recovery principle, based on the polluter pays principle,<sup>143</sup> primarily identifies the polluter (or, in the present context, the *user*) as the addressee of the costs, it also allows for *exceptions*. Following an amendment in 2016, the cost

<sup>138</sup> See: *Summary of the River Basin Management Plan of Hungary*, 3<sup>rd</sup>, pp. 57–59.

<sup>139</sup> For more details, see: A. Csibi, J.E. Szilágyi, *A költségmegtérülés elvének érvényesülése a vízszolgáltatások körében*, “Publicationes Universitatis Miskolcensis Sectio Juridica et Politica” 2014, No. 32, pp. 371–396.

<sup>140</sup> Section 15/F(4)(d) of the WMAAct.

<sup>141</sup> Section 15(7) of the WMAAct.

<sup>142</sup> C.f. Z. Nagy, *The instruments of the environmental policy's economic regulation with a particular regard to the Hungarian system*, “Lex et Scientia” 2014, Vol. 21, No. 1, pp. 77–88.

<sup>143</sup> About this principle, see in particular: Gy. Bándi, *A “szennyező fizet” elv és a környezetre veszélyes tevékenységgel okozott károokra vonatkozó felelősségi szabályok európai trendjei*, [in:] É. Margitán et al. (eds.), *Nyugat-európai hatások a magyar jogrendszer fejlődésében*, Budapest 1994, pp. 136–162; Cs. Csák, *Gondolatok a “szennyező fizet” elvének alkalmazási problémáiról*, “Miskolci Jogi Szemle” 2011, Vol. 6, special edition, pp. 31–45.

recovery principle is now more emphatically reflected in the Hungarian pricing policy for agricultural irrigation.<sup>144</sup>

II. In the context of *cost sharing*, Hungarian legislation determined the party to bear the costs of operating and maintaining the aquifer or water facility concerned on the basis of the *degree of public interest*. On that basis, the costs of operation and maintenance of water and water facilities owned, operated and maintained by the State must be financed from the *central budget to the extent of the public interest*.<sup>145</sup> The legislation also specifically provides for the provision of water services to agriculture.<sup>146</sup> *Additional costs of activities over and above the degree of public interest* (water works, construction of a water facility) must be reimbursed by *the applicants* as follows.<sup>147</sup> The costs of regional public-purpose water facilities and public-purpose water works are borne by *the members* in accordance with a special Act<sup>148</sup> in the *case of a water association*, or by *the parties concerned in proportion to their interest in the* absence of a water association (interest-based public-purpose contribution). The amount of the interest-based public-purpose contribution payable per hectare is set annually by decree of the Minister responsible for water management and, (in the absence of a water association) it is levied on the parties concerned by the district office of the county government office.

III. These general rules for cost allocation are also reflected in the *tariffs for agricultural water services*. Under the relevant rules, as a general rule, anyone who uses agricultural water services is obliged to pay an agricultural water service charge to the service provider. The State may, however, assume the liability for the water service charges for irrigation, rice production and fish farming, as defined

<sup>144</sup> For the former legislation, see: J.E. Szilágyi, *A mezőgazdasági öntözéssel összefüggő egyes jogi problémákról*, "Miskolci Jogi Szemle" 2015, Vol. 10, No. 1, pp. 49–50.

<sup>145</sup> Section 7(1) of the WMAAct.

<sup>146</sup> Section 7(2)(h) of the WMAAct.

<sup>147</sup> Section 8(1) to (3) of the WMAAct.

<sup>148</sup> Sections 41 and 19(1) of the WAAAct.

in a Government Decree.<sup>149</sup> This “take-over rule” is defined in a Government Decree, which provides that the agricultural water user pays the agricultural water supplier directly supplying such users the water service charge corresponding to the total amount of water supplied to the user, *less half of the basic water service charge* covered by the central budget.<sup>150</sup> In order to understand the take-over rule, it is necessary to point out that the agricultural water service charge consists of two parts: the fixed costs are covered by the so-called “basic charge”, which ensures availability, while the variable costs are covered by a charge proportional to the quantity of water used, the so-called “variable charge”. Under the take-over rule mentioned above, half of the basic charge is payable from public funds. When drafting the take-over rule, the legislator had to take into account important EU legal requirements,<sup>151</sup> i.e., the cost recovery principle under Article 9 of the Water Framework Directive, mentioned above (and in particular its components relating to the polluter pays principle). However, it seems that the charge paid by Hungarian producers is still very high by international standards, despite the efforts to date.<sup>152</sup> Further action may be needed in this

<sup>149</sup> Section 15/F (1) of the WMAct.

<sup>150</sup> Section 6(1) of Gov. Decree No. 115/2014. See also: Sections 6, 6/A, 8/A and 8/B of Gov. Decree No. 115/2014. The transitional rules for the bearing of costs in relation to the assumption of a certain part of the basic fee by the central budget were previously provided for in Section 8 of Gov. Decree No. 115/2014, whereas at the time of writing this study, they are provided for under Sections 8/C and 8/D of Gov. Decree No. 115/2014 for the year 2023; after the expiry of such a transitional period, Section 6(1) applies.

<sup>151</sup> In agreement with Martin Csirszki, the EU State aid rules are not of particular relevance for the Hungarian take-over rule, as the EU State aid rules would only be applicable if the competition between Member States were affected and distorted. That, however, is not the case, as it is not common for a water service provider established in an EU Member State other than Hungary to provide its services to producers in Hungary. The situation is further complicated by the fact that water conditions in Member States also vary considerably, a characteristic which can also be taken into account when describing EU State aid rules. Based on personal communication from Martin Csirszki, 17.08.2023. However, the EU State aid rules (Article 107 TFEU) may be relevant for other aspects of irrigation development (e.g., the reconstruction of main irrigation systems).

<sup>152</sup> See: European Court of Auditors, *Sustainable water use in agriculture*, special report, 2021/20, Luxembourg 2021, p. 26; and J. Berbel, M.M. Borrego-Marin,

respect. Considering that the operation and expansion of irrigation systems can positively contribute to water retention in a given area, this could justify a more active contribution from the public.

IV. In certain cases, a charge that also affects agricultural irrigation is the *water resource tax*,<sup>153</sup> which is not charged to water users up to a certain amount, i.e. 400,000 m<sup>3</sup> per year for irrigation water use or 4,000 m<sup>3</sup> per water user per irrigated hectare, or 400,000 m<sup>3</sup> per year for fish and rice water use for groundwater users, or 25,000 m<sup>3</sup> per hectare per year for surface water users.<sup>154</sup> However, in some cases, the user is not required to pay the water resource tax even beyond the given amount.<sup>155</sup>

The analysis of exemptions shows that the new requirements introduced in 2018 have significantly reduced the amount of water subject to the water resource tax. In the case of subsurface water use, the total amount of water used for fish production and 96 percent of the amount used for irrigation were transferred to the exemption below the threshold by 2018. For surface water use, the amount covered by the threshold exemption more than quadrupled from 2017 to 2018. In particular, the amount of irrigation water has increased six times, the amount for fish farming nearly four times, while the amount used for rice production 6.5 times.<sup>156</sup>

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A. Exposito, G. Giannoccaro, N.M. Montilla-Lopez, C. Roseta-Palma, *Analysis of irrigation water tariffs and taxes in Europe*, "Water Policy" 2019, Vol. 21, No. 4, p. 817.

<sup>153</sup> Section 15/A (1) of the WMAAct.

<sup>154</sup> Section 15/C (1)(l) of the WMAAct.

<sup>155</sup> Thus, no water resource tax is payable (a) in periods of permanent water shortage, (b) for the water resources used from the retention and storage of surplus water at the end of winter, such as surface water, flood water and inland water, (c) if the State deviates in favour of the water user for reasons based on social, environmental and economic impacts or geographical and climatic characteristics; Section 15/C (1)(m) and (n), (1a) and (2) of the WMAAct. See also: Section 15/E (1) and (1a) of the WMAAct, Sections 5(1)(i), 9/A–B and point 1(e) to Annex 1 of KHVM Decree No. 43/1999.

<sup>156</sup> *Summary of the River Basin Management Plan of Hungary*, 3<sup>rd</sup>, p. 59.

## 4.6. AQUIFERS AVAILABLE FOR AGRICULTURAL IRRIGATION

The legislation basically sets standards for surface water and subsurface water in relation to aquifers that can be used for irrigation (i.e., rainwater, for example, is not specifically addressed). Based on these: (a) *surface water* is the primary source of irrigation;<sup>157</sup> (b) in relation to irrigation, several pieces of legislation state that *subsurface water* can only be considered in planning for irrigation water supply in the absence of surface water supply;<sup>158</sup> (c) for subsurface water, irrigation water needs must be met *from subsoil water* wherever possible;<sup>159</sup> (d) *stratum water* can be used both for micro-irrigation and (under certain conditions) for irrigation other than micro-irrigation;<sup>160</sup> (e) by contrast, *karst water* can only be used for micro-irrigation.<sup>161</sup>

Water needs can be met primarily from water resources not yet committed for water use (here, the amount of water in the water permit in principle is already taken into account). A new *water permit* can only be issued if the water quantity specified in the permit can be provided to the permit holders.<sup>162</sup> Water use for irrigation purposes may be authorized, except for simplified irrigation water use if there is a verifiable demand for irrigation water for a period of at least five years.<sup>163</sup>

<sup>157</sup> Section 15(1) of the WMAAct, Section 2(2) of Decree No. 115/2014.

<sup>158</sup> Section 60(3) of Decree No. 147/2010, Section 3(5) of Decree No. 101/2007.

<sup>159</sup> Section 60(4) of Decree No. 147/2010.

<sup>160</sup> Sections 60/A and 60/B of Decree No. 147/2010.

<sup>161</sup> Section 60(2) of Decree No. 147/2010.

<sup>162</sup> Sections 15(2) and 29(3) of the WMAAct.

<sup>163</sup> Section 60(1)(c) of Decree No. 147/2010. See also: Section 5(12) and (13) of Decree No. 72/1996.

## 5. Good practices from the Hungarian legislation and further opportunities for improvement (*de lege ferenda*)

For more than a decade, the Hungarian legislator has been trying to improve the system of agricultural irrigation and the relevant legislation in order to encourage competition and be more sustainable. On the positive side, the Hungarian academic community has been its partner to those joint efforts. Among the contributions of science, the National Water Strategy of the Hungarian Academy of Sciences and the concept of landscape-based water management formulated by several scientists during its development are particularly noteworthy. On the positive side, landscape-based water management is no longer a concept known only to the scientific community. From time to time, its essential elements have also been included in official national water governance documents, such as the RBMP3.<sup>164</sup>

In designing the irrigation system and its regulatory environment, the Hungarian legislator correctly identified the country's geographical and hydrological characteristics, as well as the fact that, in view of all these, modern water governance and regulation in the 21st century are inconceivable without the active (and professional) involvement of the nation state. A properly interpreted and implemented strengthening of the role of the State can also help to put into practice the principle of integration, which is important for environmental protection. This active involvement by the State is reflected in several aspects. In the Fundamental Law, water resources were named as part of the category of the "common heritage of the nation". Moreover, the Fundamental Law created and strengthened the category of "national assets", which also included, through the adoption of additional pieces of legislation, certain water facilities important for water and irrigation. The State has clearly established ownership issues concerning the waters and water bodies concerned, has strongly positioned the role of the State and local governments, and has prudently enshrined the most

<sup>164</sup> See: *Summary of the River Basin Management Plan of Hungary*, 3<sup>rd</sup>, pp. 122–123.

important elements of the system in a cardinal Act. At the same time, where appropriate, a number of important irrigation canals were put under public management in various ways and forms. In order to ensure permeability between properties, which is essential for irrigation, the system of easements and the regulation of connections to the various facilities have been reconsidered. The adoption of the Irrigation Act was another important step for the system: a central coordinating body has been assigned to irrigation, which further strengthened the systemic use of water by preparing and implementing the relevant irrigation plans. The irrigation plans have served both to improve environmental protection and to reduce the administrative burden on farmers. The solution adopted does not violate the principle of “non-regression” established by the Hungarian Constitutional Court also. This is not contradicted by the fact that there is still room for improvement in that respect. The RBMP<sub>3</sub> itself states (albeit in less specific terms)<sup>165</sup> that the concept of landscape-based water management needs to be further ensured in the development and implementation of spatial plans for irrigation. In this regard, one should not ignore the need to rethink the form of land use in certain areas concerned.

One of the key issues for agricultural irrigation is its financing, as such costs can have a direct impact on both the price of the agricultural products and the sustainability of environmental services, and thus on the competitiveness of the agricultural sector and its producers. Agriculture without access to water at a reasonable price will be left behind in international competition. Agricultural irrigation that correctly applies the concept of landscape-based water management can provide a basis for the State to be more actively involved in the implementation of landscape-based water management up to the “extent of public interest”, and for the boundary between the “extent” of public and private interest to shift towards the public interest. A more active role for the State in this area, and a corresponding extension of the scope of public interest, is also justified for other reasons. Examples include ensuring coherence between the economic, social and environmental pillars of sustainable development,

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<sup>165</sup> See: *Summary of the River Basin Management Plan of Hungary*, 3<sup>rd</sup>, pp. 122–123.

and ensuring a high degree of environmental integration. Properly exploited reservoirs can contribute to increasing water retention, which can also be considered as a serious social and environmental interest, and thus it appears logical to increase the share of public funds in its financing.

## Bibliography

- Aylward, B., Kiersch, B., Petralli, N., Vapnek, J., *Water resources and their management*, [in:] Aylward, B., Bartram, J., Popp, C., Vapnek, J. (eds.), *Law for water management: A guide to concepts and effective approaches*, “FAO Legislative Study” 2009, No. 101, Róma.
- Balogh, P., *Árvízvédelem és gazdálkodás*, [in:] Tóth, A. (ed.), *Tiszavölgyi tájváltozások*, Kisújszállás 2003.
- Bándi, Gy., *A “szennyező fizet” elv és a környezetre veszélyes tevékenységgel okozott károkra vonatkozó felelősségi szabályok európai trendjei*, [in:] Margitán, É. et al. (eds.), *Nyugat európai hatások a magyar jogrendszer fejlődésében*, Budapest 1994.
- Bándi, Gy., *Környezetjog*, Szent István Társulat, Budapest 2011.
- Berbel, J., Borrego-Marin, M.M., Exposito, A., Giannocco, G., Montilla-Lopez, N.M., Roseta-Palma, C., *Analysis of irrigation water tariffs and taxes in Europe*, “Water Policy” 2019, Vol. 21, No. 4, pp. 806–825, <https://doi.org/10.2166/wp.2019.197>.
- Climate Change 2014: Contribution of Working Group II to the Fifth Assessment Report of the IPCC*, Cambridge University Press, Cambridge–New York 2014.
- Csák, Cs., *Gondolatok a “szennyező fizet” elvének alkalmazási problémáiról*, “Miskolci Jogi Szemle” 2011, Vol. 6, special edition.
- Csák, Cs., *Környezetjog*, Novotni, Miskolc 2008.
- Csibi, A., Szilágyi, J.E., *A költségmegtérülés elvének érvényesülése a vízszolgáltatások körében*, “Publicationes Universitatis Miskolcensis Sectio Juridica et Politica” 2014, No. 32.
- Engloner, A., Vargha, M., Báldi, A., Józsa, J. (eds.), *A Nemzeti Víztudományi Kutatási Program kihívásai és feladatai*, MTA Ökológiai Kutatóközpont, Tihany 2019.

- European Court of Auditors, *Sustainable water use in agriculture*, special report, 2021/20, Luxembourg 2021, [https://www.eca.europa.eu/Lists/ECADocuments/SR21\\_20/SR\\_CAP-and-waterEN.pdf](https://www.eca.europa.eu/Lists/ECADocuments/SR21_20/SR_CAP-and-waterEN.pdf) (accessed on: 19.07.2023).
- Farkas Csamangó, E., *The utilisation of geothermic energies from a legal aspect*, "Journal of Agricultural and Environmental Law" 2007, Vol. 2, No. 3, <https://epa.oszk.hu/01000/01040/00003/pdf/> (accessed on: 19.07.2023).
- Fodor, L., *Környezetjog*, Debreceni Egyetemi Kiadó, Debrecen 2014.
- Honti, M., Szilágyi, J.E., Ungvári, G., *Víztudományi program 6. fejezet – Társadalomtudományi kihívások: A víزشemléletű kormányzás – water governance*, manuscript, MTA Water Science Coordination Group, 31 March 2017.
- Krajnyák, E., *Hungary: A Progressive Approach to the Protection of the Environment and Future Generations in a Traditional Constitution*, [in:] Szilágyi, J.E. (ed.) *Constitutional Protection of the Environment and Future Generations: Legislation and Practice in Certain Central European Countries*, Central European Academic Publishing, Miskolc–Budapest 2022, [https://doi.org/10.54237/profnet.2022.jeszcpfeg\\_6](https://doi.org/10.54237/profnet.2022.jeszcpfeg_6).
- Miklós, L., *A vízvédelem szabályozása*, [in:] Miklós, L. (ed.), *A környezetjog alapjai*, Szeged 2011.
- Nagy, Z., *The instruments of the environmental policy's economic regulation with a particular regard to the Hungarian system*, "Lex et Scientia" 2014, Vol. 21, No. 1.
- National Water Strategy on water management, irrigation and drought management*, prepared by Deputy State Secretariat for Water Affairs, State Secretariat for the Environment, Ministry of Rural Development, November 2013.
- Nemzeti Agrárgazdasági Kamara, *Az öntözés intézményi háttere*, <https://nak.hu/images/2023/Ontozes-intezmenyi-haattere.pdf> (accessed on: 19.07.2023).
- Nemzeti Agrárgazdasági Kamara, *Öntözést támogató hazai és uniós ösztönzők – A fenntartható vízgazdálkodási közösség tükrében*, [https://nak.hu/images/2023/Fenntarthato\\_Kozosseg\\_2023\\_compressed.pdf](https://nak.hu/images/2023/Fenntarthato_Kozosseg_2023_compressed.pdf) (accessed on: 19.07.2023).

- Olajos, I., *A szerzés tárgya szerint speciális tulajdonszerzési szabályok*, [in:] Csák, Cs. (ed.), *Agrárjog*, Novotni Alapítvány, Miskolc 2010.
- Olajos, I., *Speciális tulajdonszerzések az erdő- és vízgazdálkodás, valamint a szőlőtermesztés területén*, [in:] Csák, Cs. (ed.), *Agrárjog*, Novotni Alapítvány, Miskolc 2008, pp. 116–123.
- Raisz, A., *A Constitutions Environment, Environment in the Constitution: Process and Background of the New Hungarian Constitution*, “Est Europa” 2011, special edition, <http://real.mtak.hu/62620/> (accessed on: 19.07.2023).
- Somlyódy, L. (ed.), *Magyarország vízgazdálkodása*, Köztisztviselői Stratégiai Program, MTA, Budapest 2011.
- Summary of the River Basin Management Plan of Hungary*, 3<sup>rd</sup>, 2021, [https://vizeink.hu/wp-content/uploads/2022/05/VGT3\\_osszefoglalo\\_2021\\_elfogadott.pdf](https://vizeink.hu/wp-content/uploads/2022/05/VGT3_osszefoglalo_2021_elfogadott.pdf) (accessed on: 19.07.2023).
- Szilágyi, J.E., *A mezőgazdasági öntözéssel összefüggő egyes jogi problémákról*, “Miskolci Jogi Szemle” 2015, Vol. 10, No. 1, pp. 33–51.
- Szilágyi, J.E., *A mezőgazdasági vízjog*, [in:] Szilágyi, J.E. (ed.), *Agrárjog*, Miskolci Egyetemi Kiadó, Miskolc 2017.
- Szilágyi, J.E., *Az uniós Víz-keretirányelv költségmegtérülésének elve az Európai Bíróság esetjogának tükrében*, [in:] Szalma, J. (ed.), *A Magyar Tudomány Napja a Délvidéken 2014*, Novi Sad 2015.
- Szilágyi, J.E., *The Protection of the Interests of Future Generations in the 10-Year-Old Hungarian Constitution, With Special Reference to the Right to a Healthy Environment and Other Environmental Issues*, “Journal of Agricultural and Environmental Law” 2021, Vol. 16, No. 31, <https://doi.org/10.21029/JAEL.2021.31.130>.
- Szilágyi, J.E., *Vízjog*, Miskolci Egyetem, Miskolc 2013.
- Szilágyi, J.E., *Vízszemléletű kormányzás – vízpolitika – vízjog*, Miskolci Egyetemi Kiadó, Miskolc 2018.
- Szilágyi, J.E., Dobos, E., Szűcs, P., *A tájszemléletű vízgazdálkodás hidrogeológiai, talajtani és jogi aspektusai*, “Hidrológiai Közöny” 2020, Vol. 100, No. 1, [http://real-j.mtak.hu/15184/1/HK\\_2020\\_1.pdf#page=42](http://real-j.mtak.hu/15184/1/HK_2020_1.pdf#page=42) (accessed on: 19.07.2023).
- Szilágyi, J.E., Dobos, E., Szűcs, P., *Az öntözéses gazdálkodásról szóló törvény a tájszemléletű vízgazdálkodás tükrében*,

- “Pro Futuro” 2020, Vol. 10, No. 1, <https://doi.org/10.26521/Profuturo/2020/1/7556>.
- Szűcs, P., Sallai, F., Zákányi, B., Madarász, T. (eds.), *Vízkezelésvédelem: A vízminőség-védelem aktuális kérdései*, Bíbor Kiadó, Miskolc 2009.
- Tamás, J., *Az aszály*, “Magyar Tudomány” 2017, No. 10, <https://doi.org/10.1556/2065.178.2017.10.6>.
- Ungvári, G., Kis, A., Rákosi, J., *Gazdaságsszabályozási koncepció: Intézkedési javaslatok az ex ante feltételek teljesítésére és az intézkedési program követelményei szerint rendszerezve, the Hungarian part of the Danube river basin*, River Basin Management Plan, 2015, 8-5 melléklet, 2015.
- World Water Assessment Programme, *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 2012.
- World Water Assessment Programme, *Water for People: Water for Life*, The United Nations World Water Development Report, UNESCO–Berghahn Books, 2003.
- World Water Assessment Programme, *Water in a Changing World*, The United Nations World Water Development Report 3, UNESCO–Earthscan, Paris–London 2009.