Water policy and legislative responses to climate change in the Czech Republic

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ABSTRACT

The recurring floods and droughts in the Czech Republic show that climate change requires far-reaching changes in water management. We analyse the responses already reflected in Czech water policy and legislation at three levels: strategic, statutory and constitutional. We first describe the substantial changes that have been satisfactorily introduced into the Czech government's policies. We then trace the far less successful developments in the law, which have so far essentially been limited to drought plans and restrictions on water extraction during droughts. At the core, we concentrate on the political attempts to constitutionalize water protection.

KEYWORDS: Climate change; water policy; water legislation; Czech Republic; constitutional protection of water; drought; water reservoirs

Introduction

Climate change presents a unique and urgent challenge to water management worldwide. Climate science shows that in many regions of the world climate change causes, among other phenomena, a shift in precipitation patterns, longer and more severe droughts, and an increase in extreme weather events and floods. These developments are expected to continue and to increasingly affect the environment, including the water sector (Intergovernmental Panel on Climate Change [IPCC], 2022, pp. 567, 596).

A sufficient and secure water supply and protection against flooding remain among the most important challenges around the world. Therefore, climate change requires water management to be adapted to these new conditions, with the sector's priorities being reconsidered and adaptation measures implemented. This points to the need to respond at the levels of policy and law, and even to modify, where necessary, traditional water management concepts to ensure suitable institutional, planning, management, control and other standards in the water sector.

Climate change has already started to have a negative impact on the water regime and water management in the Czech Republic. The country has been beset by drought since 2014, the driest years being 2015 and 2018. Simultaneously, 2018 and 2019, with an average temperature of around 9.5°C, were the warmest years since 1961 (Ministry of Agriculture & Ministry of the Environment, 2020, p. 21). The year 2020 was the seventh consecutive year of drought. In future, we can expect more frequent and severe drought occurrences (Štěpánek et al., 2016, pp. 187, 191). At the peaks of previous

spells of drought, every fifth municipality was exposed to the risk of water scarcity (D^biec, 2021, p. 5).

This article explores the drought solutions that have already been adopted and planned in the Czech Republic, at the three levels where they have emerged: strategic, statutory and constitutional. We reveal an imbalance in the solutions adopted so far at these levels. While at the strategic level there have been significant advances in developing new policies and introducing new approaches, at the level of laws, we are lagging behind because of political obstacles. Since 2019, this law-making failure has been partly disregarded and partly circumvented by some actors by proposing amendments at the highest law level: in the Constitution. Therefore, a pivotal question examined in this article is whether the efforts to enshrine constitutional provisions protecting water or combating drought are a culmination of targeted efforts by the state, which needs to introduce a new value orientation at the constitutional level to meet the demands of climate change. Alternatively, are they a stopgap measure in a situation in which legislative efforts have failed, the development of the impacts of climate change is rapid, and the country is reaching for at least a proxy solution at the level of values instead of a new detailed regulatory regulation? We conclude that, taken as a whole, the existing solutions in the Czech Republic to tackle the impacts of climate change on the water sector are insufficient and do not follow an integrated approach.

Description of the area and methods

The Czech Republic, a landlocked country in Central Europe covering an area of over 78,000 km^2 and with a population of 10.5 million, is in a specific geographical position as regards its water regime. Its location at the interface of three seas means that practically all water that does not soak into the ground flows out of the territory to neighbouring states and there is no significant inflow (Dębiec, 2021, p. 21). The available water resources per capita in the Czech Republic are among the lowest in Europe (World Bank, 2023). The water resources of the Czech Republic depend on the amount and distribution of atmospheric water precipitation and on the territorial retention and accumulation of water. The current water management in the Czech Republic has been strongly influenced by the historical consequences of the Communist period with its centrally planned economy (until 1989) and the subsequent democratization, privatization and consolidation of the market economy since 1990.

The current status and future drought projections point to a deteriorating situation. On 26 April 2020, 23.2% of the Czech Republic's territory was affected by the most severe intensity of drought, and a mere 0.6% was free from drought (Dębiec, 2021, p. 13). The analyses based on climate change scenarios show that these conditions will worsen dramatically in the coming years, especially in areas with frequent droughts. Currently, the areas at risk of surface water scarcity account for 3% of the Czech Republic's territory, with an additional 18% potentially at risk. The future projections indicate a very significant deterioration due to the occurrence of agricultural droughts in the periods 2040-60 and 2080-2100, especially under a business-as-usual model. Existing water resources are expected to be insufficient in terms of potentially available quantity and quality, and water scarcity, as an imbalance resulting from using water resources above their natural renewability, will occur (Government of the Czech Republic, 2017, pp. 3, 6). Drought and water scarcity associated with the natural hazards of climate change are among the main challenges on the road to recovery in the Czech Republic, and require more efforts to be made in forest and water management (European Commission, 2022, p. 4).

In the public debate, however, the extreme weather events and water regime anomalies have only recently been directly linked to climate change. Awareness of climate change among the Czech public has been low and has been increasing only slowly (Public Opinion Research Centre, 2022). Also, the first deviations in the sufficiency of water resources were attributed to the weather and considered occasional rather than a new long-term trend. This perspective has been reflected in the slow response of Czech political representatives to climate change, which was not, and still is not, a major political issue for the electorate. Among the member states of the European Union (EU), Czechia has been counted among the least progressive in introducing climate mitigation and adaptation measures and has generally only followed the steps required by the EU. Therefore, only the strategic and legislative outcomes on water resources and drought of the last few years speak directly to the link with climate change and the need to respond to it.

Our research concentrates on the existing and planned policy and law responses in the Czech Republic to the already perceptible and projected future impacts of climate change on the water sector. We focus on Czech government policies, ministerial strategic documents and legislation addressing the new challenges arising from the impacts of climate change on the water sector. We have examined policy and legislative documents, including draft laws.

The Czech legislation currently in force is available from various Czech commercial legislative databases, and the draft legislation is publicly available at a government-run database 'ODok' (Government of the Czech Republic, 2023). For government and ministerial policy and strategic documents, we consulted the central database for Czech strategic documents (Ministry of Regional Development, 2023) and the websites of the Ministry of the Environment (2008-2023) and the Ministry of Agriculture (2009-2023a). As for the administrative measures and decisions related to water management, their overview is published weekly on the website called 'Water News' (Ministry of Agriculture, 2009-2023b). For secondary sources, we examined various recent studies on Czech water resources and management, especially those dealing with the impacts of climate change on the water sector. Not many sources were available in English, so we also had to refer to a few sources in Czech.

In this paper, we proceed from the strategic level (i.e. conceptual documents and government and ministerial policies) through the statutory level (i.e. laws and decrees or their drafts and amendments), and finally to the constitutional level, to which we pay substantial attention. We have two reasons for this sequence: first, it corresponds to the chronological appearance of the documents, with efforts to amend the constitution only arising in the last four years; and second, in the Czech political and legal order significant forthcoming conceptual changes are usually first formulated in strategic documents and policies before being incorporated into legislative or constitutional amendments.

Results and discussion

Strategic level

The first strategic documents linking climate change and water management in the context of drought were produced in 2015. In July 2015, the Czech government approved a policy document entitled 'Strategy for Adapting to Climate Change in the Conditions of the Czech Republic' (Ministry of the Environment, 2015) and supplemented this with the 'National Action Plan of Climate Change Adaptation' in 2017 (Ministry of the Environment, 2017), which should lead to better water management in the country. According to the document, the recipe that should be followed for combating drought consists of better irrigation, rainwater harvesting, water conservation and water retention.

Both these framework documents give details of water management and water regimes in the landscape in the sectors with the most notable interdependence with the effects of climate change. More detailed objectives and measures linked directly to the impacts of climate change on water resources are embodied in a separate strategic document of 2017 entitled 'Strategy Against Drought' (Government of the Czech Republic, 2017). The preparation of this document was initiated in response to severe droughts in the Czech Republic between 2014 and 2016 and was entrusted to the Interdepartmental Commission Water-Drought (Ministry of Agriculture & Ministry of the Environment, 2023). The Strategy Against Drought aims to create a strategic framework for minimizing the impacts of drought and water scarcity on the population, economy and environment in the country.

Strategy Against Drought addresses the manifestations, causes and broader context of drought induced by climate change. It deals with drought prevention, specifically in the new way of balancing nature-based and technical approaches to water retention. The traditional Czech policy and management of natural resources relied predominantly on building and developing technical infrastructure and intervening in water regimes, both in the water sector as such and also indirectly in an inappropriate development of the built environment, industry, agricultural practices, forest management, etc. (European Commission, 2022, pp. 9-10; Dfbiec, 2021, pp. 5, 7-10). In the water sector, this is evident in, for example, the abundance of regulated watercourses, large water reservoirs and agricultural plots equipped with draining systems. The current water regime in the country is still suffering from the effects of historical farming methods and unsuitable land interventions, such as the removal of essential landscape features and the consolidation of smaller land plots into large blocks to ease agriculture.

As the Strategy Against Drought reminds us, the beds of Czech watercourses in the past were often subject to technical interventions to speed up water outflow and prevent floods and, thus, help agriculture, mining, urban development and the transport of goods by making rivers navigable. However, these modifications led to excessive dewatering, a loss of the ecological and landscape functions of rivers, a loss of biodiversity, and a decrease in the self-cleaning ability of watercourses and the migration paths of fishes and other water animals (Government of the Czech Republic, 2017, pp. 42ff.). All this has had negative impacts during periods of drought. Therefore, the strategy primarily recommends nature-based solutions to amend these flaws. It advises, for instance, that naturally indented watercourses should be reinstated, that the historical technical modifications should be left without maintenance to enable the spontaneous return to the original natural shape, that natural water elements that support water retention in the landscape (such as wetlands, pools, and alluvial meadows and forests) should be protected and restored, and that natural forest management should be preferred to intensive management, to elevate the resilience of forest ecosystems and their water retention function. This shift calls for integrated and complex solutions in the interrelated fields of water management, agriculture, forestry, nature protection and other sectors.

However, the new emphasis induced by climate change on introducing more nature-based solutions to the water sector gives rise to tricky challenges emerging from the tension between past and current priorities. One of the tensions that is most publicly debated concerns water retention. Storing more water by constructing new dams matches the traditional narrative in our country that water reservoirs provide the most reliable way of ensuring sufficient water quantity and preventing drought. On the other hand, the contemporary discourse prioritizes nature-based solutions to prevent rainwater from flowing away by improving the water retention capacity of landscapes, thus representing a nature-based approach to solving the problem of water scarcity. Nevertheless, changing the traditional view of many generations of water managers and the public might be a relatively complex and lengthy process.

Historically, damming watercourses has had a long tradition and significance in the territory that is now the Czech Republic. The first historical purpose, fish farming, which led to the building of systems of ponds as many as 500 years ago, has changed since the end of the nineteenth century to the supply of drinking water, protection against flooding and the delivery of water to industries. More recently, irrigation functions, energy generation and recreation supplemented the range of the damming aims (Havlíček et al., 2022, p. 3). Today, there are over 25,000 man-made water reservoirs in the Czech Republic, 165 of which are classified as 'significant water reservoirs' as their capacity exceeds 1,000,000 m3 (Ministry of Agriculture, 2022, p. 36). These 165 reservoirs comprise 47 waterworks reservoirs serving as sources of drinking water and 118 reservoirs for other purposes (Ministry of Agriculture, 2020).

Building water reservoirs in the past led, as the Strategy Against Drought also highlights, to a significant decrease in the vulnerability of the Czech territory to water scarcity. It was thus predominantly seen as a key adaptation measure to reduce the effects of drought in the initial period when climate change began to be addressed in our country. This was also the argument used in favour of reconstructing old and building new water dams, especially in high-risk areas (Trnka et al., 2016, p. 246). In 2011, the government approved a list of 65 sites suitable for the construction of new reservoirs. In subsequent years, the Ministry of Agriculture, which has the main competencies in the water resources sector, presented a plan to increase the number of sites by 31 additional localities. It argued that without water storage in reservoirs, ensuring sufficient water resources in the Czech Republic would be impossible, especially for future generations.

In contrast, the Strategy Against Drought of 2017 took a more cautious attitude towards the building of new multipurpose water reservoirs, and recommended that this should be considered a subsidiary adaptation measure only. It concluded that technical solutions could only be the most effective way to ensure water management services under special circumstances. In general, it highlighted that the basic prerequisite for increasing the resilience of the territory to drought is the restoration of the natural water regime of the landscape, which must be carried out in a comprehensive and integrated way. According to the strategy, building new reservoirs should play a subsidiary role: 'If the impacts of climate change cannot be addressed by other means due to their infeasibility or due to disproportionate costs, the only possible solution may be to implement a multi-purpose water reservoir' (Government of the Czech Republic, 2017, pp. 28, 31).

Moreover, the 2021 update of the National Action Plan of Climate Change Adaptation recommended that the previous plans to build new reservoirs should be re-examined in connection with the climate change-related modifications in the water regime and the introduction of nature-based and organizational adaptation measures (Ministry of the Environment, 2021, p. 17). Continuing the same trend, the current Czech government stipulated in its policy statement that water retention in the landscape and restoration of the natural water regime should be clear priorities, thus emphasizing nature-based solutions to water retention (Government of the Czech Republic, 2022, p. 51). The construction of new reservoirs was to be allowed only exceptionally and to supply drinking water to the population. The actual development of the water management of the existing reservoirs indicates, in fact, that no other way would be possible: many of the reservoirs have already been affected by drought due to climate change. Out of the 89 significant water reservoirs to have been assessed, 19 have been classified as potentially at risk of deficiency concerning their storage function (Government of the Czech Republic, 2017, p. 13). The implementation of nature-based solutions may not be entirely compatible with the technical approaches that were traditionally prioritized, and we now need to reassess some of the past plans and assumptions.

Statutory level

The Strategy Against Drought set forth several tasks for ministries to prepare new legislation to help the situation. However, the implementation of the strategy to date remains weak, with only a few tasks having already made their way into legislation, as will be seen from the explanation in this section. This may be because the immediate and short-term effects of the measures outlined here are unattractive to the electorate and disadvantageous from the point of view of the existing management, making it politically very difficult to pass them.

The statutory regulations to date regarding drought reflect a piecemeal approach. They comprise fairly individual, narrow and unconnected regulations that generally address only the symptoms and the immediate impacts on people and society of drought rather than its causes and wider consequences (e.g. its impact on nature and biodiversity). In terms of drought, the legislation is basically derived from Act No. 254/2001 Coll., the Water Act, and its implementing decrees, and, besides several minor issues, it addresses the following two important areas: planning (through the drought plans) and regulating drought situations, specifically by limiting the exploitation of water resources during periods of drought.

First, the concept of drought plans was created by the Interdepartmental Commission Water-Drought of 2014 (Ministry of Agriculture & Ministry of the Environment, 2015, p. 5) and was passed through an amendment of the Water Act in 2020. It supplemented the Water Act with a new Chapter X (Section 87a ff.) called, characteristically, the 'Dry

Chapter', which first defines, in Section 87a, the terms 'drought' and 'water scarcity'. According to these provisions, drought means a hydrological drought as a fluctuation of a hydrological cycle, which emerges as a consequence of a lack of precipitation and manifests itself in a decline in flow rates in watercourses and groundwater levels. Water scarcity means a temporary situation with prospective impacts on basic human needs, the economy and the environment, in which, on account of drought, the demand for water usage exceeds the available water resources and results in necessary reductions through water management and other measures. Sections 87b-87d of the Water Act then introduce rules for designing plans for managing drought and water scarcity ('drought plans') for the territories of the whole republic and the regions. The authorities competent to develop the country's drought plan are, jointly, the Ministry of Agriculture and the Ministry of the Environment. Each region's regional office is competent, in cooperation with the relevant river basin managers and the Czech Hydrometeorological Institute. The drought plans are to serve as the basis for individual decisions and so-called 'measures of a general scope' issued by water authorities to manage drought, for assessments of the need to convene a Drought Management and Water Shortage Commission (Drought Commission), and for decisions by the Drought Commission on measures in the event of water scarcity.

Each drought plan must include three parts. The general part should contain the data needed to manage drought in a given area, the characteristics of the area, a description of the water resources, including back-up resources and their possible substitutability, a description of water treatment, transport, transfers and supply, a list and description of the technical equipment that can be used to solve a situation of water shortages, a list of water users important for the given area, a list of permitted water management activities that significantly affect the quantity and quality of water, a description of drought risks and local normative limits, and the criteria for declaring a state of water shortage. The operative part should contain a list of public authorities and persons involved in drought and water shortage management, a description of the activities they carry out, and a description of information transmission, supply priorities, draft procedures for drought management and measures

in the event of a declared water shortage. The third, graphic, part should contain maps or plans of territories threatened by drought, water management and water supply systems, sources and treatment of water and water users significant for the given area.

Second, legal provisions that enable the restriction or even the prohibition of the taking of surface water in case of severe drought have been strengthened, with the aim of ensuring water resources are not overloaded during periods of drought. These provisions include exemptions to general rules on the taking of water that are either permitted through individual decisions issued by water authorities to operators or other subjects utilizing water or are based on so-called 'general utilisations of surface waters' without approval by the water authority (these allow anybody to take surface water or use it for other purposes without the need for special technical equipment).

Concerning the permits that are issued, the water authority may, without compensation, adjust the permitted water utilization for a time that is strictly necessary or restrict or even prohibit such utilization if the public interest requires this (in particular, if there is a temporary lack of water, if the water supply to the population is endangered or if there is a one-time withdrawal of drinking water from the water supply network in cases of rescue work in emergencies, fires and other natural disasters). These measures are to be taken after consultation with the parties concerned unless the exceptional nature of the situation precludes this.

In relation to the 'general utilisation of surface waters', the water authority may, according to the strengthened version of the Water Act, without compensation, modify, restrict or prohibit the general utilization of surface waters if the public interest so requires. This applies particularly to situations in which water quality or safety is endangered, the natural environment is disturbed, runoff conditions deteriorate or there are personal safety reasons. This competence belongs to the municipal authorities.

In addition to the regulations contained in the Water Act, the rules set by the Water Supply and Sewerage Act (Act No. 274/2001 Coll.) are relevant. This Act states that if the public interest so requires, especially if there is a temporary shortage of drinking water which cannot be improved because of technical capacity or insufficient water resources, the water authority may, after consultation with the municipality, waterworks owner and operator, temporarily limit the use of drinking water from the tap for public use for a maximum period of three months.

Based on the above-mentioned laws, water authorities and municipalities can regulate how water resources are used, and take measures to protect the drinking water supply. The Ministry of Agriculture publishes weekly reports on the state of water resources and drought, using information from river basin managers who monitor and evaluate the situation based on current needs (Ministry of Agriculture, 2023). These reports also include a list of currently applicable water management restrictions. Regarding time validity, these measures are used mainly for the summer, but some are issued indefinitely. As for their justification, a lack of surface or underground water, the protection of the people and also the protection of the aquatic ecosystem usually apply. The restrictions relate to the prohibition or limitation of the utilization of water resources for filling swimming pools or using sprinklers in gardens. As for the total number of these measures, several dozen situations are registered in the country each year.

The 'Dry Chapter' of the Water Act (Chapter X of the Act No. 254/2001 Coll.) explained above and the strengthening of the preservation of water resources represent the few successful legislative efforts for responding to drought. Unfortunately, similar progress is lacking in other areas that are also relevant for solving the impact of drought, according to the Strategy Against Drought. Two flagship examples of these legislative failures are described below. First, the Strategy assumed that minimum

residual flows would be amended where a 1998 methodology that disregards ecological criteria still applies. A proposed new government decree of 2018 envisaged an increase in the minimum residual flows, both seasonally and regionally, and the consideration of more hydrological characteristics in determining them. However, as there were several collisions between the economic interests of industry and hydroelectric power plants and ecological interests, the preparation of the draft decree was stopped, and the follow-up has not been clear. Second, the new legislation on soil erosion (Decree No. 240/2021 Coll.), adopted after five years of negotiations, represents a poor compromise. It was expected to bring in new rules not only for correct agricultural practices but also for the classification of soils according to their vulnerability to erosion, and for the proper choice of appropriate crops. In the Czech Republic, approximately 60% of agricultural land is potentially threatened by water erosion and 45% by wind erosion. The country's soil loss is estimated at approximately 21 million tonnes of topsoil per year. The causes lie in unsuitable agricultural practices and a historical lack of balance in the composition of farming entities, with a predominance of large-scale farms. The approved wording of the Decree addresses partial solutions only for recurrences of water erosion from fields, and the Decree does not regulate prevention, first-incident appearance or wind erosion. The more ambitious legislative intentions have not been completely abandoned, but getting them through will probably take longer.

To sum up, the newly adopted legislative measures cover only part of the problem. They are concerned with water legislation, merely addressing the effects of drought, and only as regards human needs and activities. However, in the context of the entire complexity of climate change, it is necessary to remember that measures related to drought prevention are no less vital. It is also essential to implement these in the future through a multisectoral approach, focusing also on nature and landscape protection, agricultural and forestry management, and, last but not least, appropriately set financial tools, including subsidy policies. In conjunction with a constitutional amendment (if there is one), the legislative backing can be further strengthened and judicially enforced. With such a legislative structure, the Constitution could be a shield that creates a framework for water protection across human activities.

Constitutional level

Background to constitutionalizing water protection in Czechia

As explained, the extreme droughts of 2014 and 2015 have been quite effective in leading to changes in Czech strategic documents for water management and drought, but have only resulted in minimal changes to laws. However, laws are the core of regulation, and they are necessary to implement new patterns in practice. Mere amendments of strategic documents may point us in the right direction, but they are not enough to put changes into practice. This contradiction between newly set political goals and the failure to translate them into laws (and thus implement them) may be behind several recent attempts to amend the Constitution.

Attempting to amend the Constitution when it is not politically feasible to change ordinary laws may seem unreasonable, since amending the Constitution requires more support in Parliament than amending the law. Nevertheless, constitutional provisions stand higher than laws in the hierarchy of the legal system, are far more generally formulated, and provide a type of interpretative and value guidance. A vaguely worded constitutional provision might be easier to pass in Parliament. For some types of decisionmaking, a broadly worded principle in the Constitution may bridge the gap of a statute or 'trump' its norm. From this perspective, a constitutional amendment may make sense.

To understand the proposed changes to the Czech Constitution, we need to look in more detail at how the Czech Constitution treats water conservation. Constitutional water protection in the Czech Republic traditionally exists as part of protecting the whole environment. The fundamentals of environmental protection, including water conservation, are set out in the Czech Constitution (Act No. 1/1993 Coll.) and the Czech Charter of Fundamental Rights and Freedoms (Act No. 2/1993 Coll.). The preamble of the Constitution reflects a commitment to guard and develop together the inherited natural and cultural, material and spiritual wealth. Article 7 then declares that the state shall concern itself with the prudent use of its natural resources and the protection of its natural wealth. Through this article, the state is obliged to act to protect the environment. The term 'natural resources' covers water, as interpreted in accordance with the term 'environment' within the meaning of Act No. 17/1992 Coll., on the environment, which, in Section 2, defines the environment as everything that creates the natural conditions for the existence of organisms, including humans, and is a prerequisite for their further development. Its components are mainly air, water, rocks, soil, organisms, ecosystems and energy. Additionally, Article 35 of the Charter of Fundamental Rights and Freedoms guarantees the right of everyone to a favourable environment.

Current efforts

Regardless of this general framing of the constitutional protection of the environment, several initiatives emerged during the period of the previous government that focused on the explicit highlighting of water within the constitutional provisions. As of 2019, four parliamentary proposals had been introduced to improve water protection and prioritize the public interest in water preservation. The current government brought forward another draft amendment in November 2022. Although the legislative procedure for the four parliamentary proposals mentioned was stopped in accordance with procedural rules in connection with the election of the new Chamber of Deputies in 2021, the motivations and objectives of these proposals are worth examining more closely in terms of their correlation with the newly enshrined strategic objectives.

Although all the proposed amendments were prepared with the same motto of strengthening the constitutional protection of water, a deeper look at them reveals that their motivations may have been more complex and may have differed across the different proposals. They were all similarly justified on the grounds that water is both a finite natural resource and an essential ingredient for the life of present and future generations. Still, the following various and even contradictory trends can be: emphasizing the unique value of water as part of the environment, and its importance to society, which should be reflected in its strengthened protection even under ordinary legislation; taking a human rights approach and enshrining a human right to water; and prioritizing new reservoirs and thus facilitating the granting of permission for them rather than for other projects, based on the public interest argument of ensuring sufficient drinking water.

The first draft amendment proposed the inclusion of a new obligation on the state to conserve and sustain water as a basic necessity of life in the new wording of Article 7 of the Constitution. The second draft amendment focused on the explicit mention of water resources (and soil) in Article 7: 'The state shall concern itself with the prudent use of its natural resources, especially of water resources and soil, and the protection of its natural wealth'. Both these proposals explicitly reinforced the emphasis on the conservation of water and water resources and soil (to promote water retention in the landscape). Conservation of water resources was to be a priority of the highest importance. These provisions mainly seem to have implications in terms of values and interpretation. They do not regulate specific activities of persons but merely confirm and reinforce the state's pre-existing commitment to

environmental protection. At the same time, these proposals are aligned with the direction of the new strategic policy documents on drought, especially the second one, which has the direct aim of supporting the natural water regime in the landscape. Thus, by virtue of the force of constitutional guidance, such provisions could have significance for interpretation and could indirectly reinforce the nature-based approaches to water retention, as incorporated in the new policies.

The third draft amendment was intended to guarantee the right to drinking water. It aimed to amend Article 31 of the Charter of Fundamental Rights and Freedoms on the right to health by adding that 'Everyone has the right to safe drinking water'. The draft proposed that water resources should be declared as a public utility under the administration of the state, with priority given to drinking water resources for consumption. It was proposed that the drinking water supply would be provided by municipalities on a not-for -profit basis in the future. It must be said that the third draft amendment was driven by an attempt to address the problems associated with the privatization of water infrastructure implemented after 1989, which, according to the explanatory memorandum to the amendment, is now causing unbalanced and unequal conditions in the supply of drinking water and does not sufficiently reflect the need for investment in the revitalization of the water services network. This draft is thus limited to the issue of the conditions of people's access to drinking water. It has no direct impact on the environmental protection of water resources or the balance between nature-based and technical approaches to water management.

The fourth draft amendment, submitted as a separate new piece of constitutional law, planned to enshrine the right of everyone to have, in their place of residence, 'access to drinking water for the basic needs of life from a public water supply or to drinking water from publicly available sources under socially and economically acceptable conditions'. It also included a provision stipulating that state and self-government units would be obliged to ensure the protection of water reservoirs supplying drinking water to the population, to ensure they were constructed and not to alienate them for the benefit of other persons. Moreover, the draft constitutional law declared the protection of water resources used for the mass supply of drinking water to be a 'paramount public interest' that might be restricted only for specific other overriding public interests, under specific conditions and to the extent strictly necessary. The concept of a paramount public interest was supposed to cover the construction of water reservoirs intended for the mass supply of drinking water and the related water management infrastructure.

In other words, the draft planned to elevate the public interest in the building of new water reservoirs for drinking water to the highest possible legal level to ensure the priority of such projects over almost any other possible plans or conflicting interests. The formulation of the 'paramount public interest' could, however, be problematic from a legal point of view. On the one hand, the public interest in protecting (drinking) water resources is indisputable. On the other hand, directly embodying political requirements and a paramount public interest in the construction of new dams interferes with the general concept of the public interest and the separation of powers. Under the legal concept of the public interest, various public interests must be weighed and balanced in individual administrative proceedings. A priori, no overriding public interest can be predetermined by legislation.

The motivation for this proposal appears to be to continue the historical trend of prioritizing technical solutions in water management and to facilitate the construction of new drinking water reservoirs. In this sense, the proposal goes against the spirit of the new strategic documents. It seeks to override, by constitutional force, any conflicting solutions that might appear in spatial planning or legislation. For this reason, we could therefore assess this proposal as probably being motivated by the concerns of actors in the field of water construction in order to defend their interests, and as a proposal that stands out from the rest.

The fifth constitutional proposal prepared by the government followed its policy statement (Government of the Czech Republic, 2022, p. 51) in which it stipulated a common interest in the field of water (without an express focus on building new water reservoirs). It plans to amend Article 7 of the Constitution by adding an explicit reference to water and soil protection: 'The state shall concern itself with the prudent use of natural resources, especially of water and soil, and the protection of the environment'. If approved, the amendment would come into force in January 2024.

During the public inter-ministerial consultation on this government proposal, many comments and criticisms were received that focused directly on the proposed wording and reflected more deeply on the rationale for enshrining water in the Constitution. The comments point out that it is not clear whether the protection of water should be more important than the protection of other components of the environment that are not explicitly mentioned in the Constitution, such as biodiversity. They also stress that drought cannot be addressed without reference to other environmental components. These considerations make a major contribution to the debate about all the draft amendments mentioned above and the merits of constitutionalizing water in the context of addressing the impacts of climate change. We, therefore, present them below in greater detail. In the meantime, the Ministry responded to most of the comments received; it modified the wording of the proposal to emphasize water protection alone (and not soil), but still plans to go on with the legislative process.

What is the constitutional solution for?

On the one hand, a constitutional response to the impacts of climate change, to climate protection itself or to the special protection of water can serve as an important symbol (strategic message) for further state efforts. Generally, the Constitution represents the value orientation of the state. Therefore the necessity, suitability and desirability of strengthening constitutional water protection reflect political goals. Moreover, the rise in the attention paid to the constitutional protection of water corresponds to a trend visible in Europe that is mirrored in the increased political will to address climate change impacts at the constitutional level in terms of strengthening water protection or enshrining a specific right to water (Eman & Meško, 2020, pp. 479-481; Peráček et al., 2016).

On the other hand, at least two points should be considered. First, it must be ensured that the adopted solution is perfect from the legislative point of view and does not cause interpretation problems. Second, enforceable rules, rights and obligations must follow at the statutory level so that declaratory, non-normative enshrinement is further elaborated in and enforced by ordinary laws and decrees. Strengthening water protection practically relies on proper secondary legislation and implementation at the central, regional and local levels. In this regard, it should be stressed that even the best constitutional provision on water cannot replace a lack of adequate statutory regulation. Therefore, a constitutional provision is better than no provision, especially if it supports the same values as government policy, but it should be only the imaginary apex of the whole body of legislation, the essential content of which is in the statutes.

Despite the many negative comments to the last proposal, the Ministry of the Environment is continuing to go forward with the amendment of Article 7. The above-mentioned questions about the merits of the constitutional regulation of water have not yet been clearly answered. If it turns out that the government has no further plans to push through the necessary subsequent laws, such a course of action could even be described as constitutional populism.

To summarize the constitutional-level considerations, strengthening water protection by means of a social declaration of its indispensability at the constitutional level is certainly appropriate, at least for

methodological management and judicial review. However, for the future, political will is required to pass legislation supporting proper natural and technical measures, thus bringing the constitutional provisions into reality. The correct legislative formulation of the new provisions is no less important, so that no interpretational conflicts occur.

Conclusions

This article has examined the policy and legal responses that the Czech Republic has adopted or is planning to address the growing risks of climate change to water, water resources and water management, including the risk of water scarcity and drought. We analysed these responses at the level of government and ministerial strategies as policy directions, at the level of laws, and at the level of the Constitution.

We found that the impacts of climate change require adjustment to the historical approaches to water management and the introduction of new approaches and priorities. In the Czech Republic, this has only been achieved at a strategic level and, so far, has only been done partially. We can at least comment positively on the slow but still ongoing transformation of political considerations necessitated by the impacts of climate change. This transformation can be described as a gradual move away from approaches in the water sector that rely primarily on technical solutions (e.g. the construction of reservoirs or the technical regulation of watercourses) towards nature-based approaches (e.g. the deregulation of watercourses or the promotion of natural water retention in the landscape). However, the challenge for the future remains to ensure a more comprehensive and integrated approach so that the water sector is not addressed in isolation but in direct interaction with other sectors such as land and agriculture, nature and landscape, and biodiversity.

On the other hand, very few of the strategic objectives have been passed into law, primarily because of political resistance: It is very difficult to push for new directions in a conservative environment accustomed for decades to a certain way of thinking and wielding political influence. The main examples of success are thus only the prevention of drought within the drought plans and the strengthened measures incorporated into laws for the vital preservation of water resources in the case of water scarcity. However, the objectives of these new legal provisions are very narrow - they do not deal primarily with the causes of drought but only with the implications of drought for the population. Here, much more legislative work is needed in the future, accompanied by intensive consultation with the relevant stakeholders, whose knowledge of the right solutions to the impacts of climate change is needed in order for them to support more notable policy changes. At the constitutional level, the efforts to date have been limited to five draft constitutional amendments, none of which have yet been adopted. These proposals are thus more indicative of the pressures and efforts in the Czech legislature, where attempts to change the Constitution in terms of values can sometimes appear as a substitute for enacting (politically impassable) ordinary laws that would implement the new strategic objectives. Alternatively, these proposals may be a manifestation of populism, where the government claims to be fulfilling its intentions, but the fulfilment is only formal and just to create points in its favour.

All this means that we have gone from adjusting policies and strategies, through recognizing the seriousness of the problem, to seeking a solution at the level of the Constitution. However, this solution alone cannot provide us with the necessary rapid implementation of change, given the urgency of the problem. For an effective solution, it is necessary not only to have good quality strategies but also to link those strategies together and, above all, to adopt adequate legislation that will enable the new policy directions in water management to be implemented. It will also be essential

to move beyond the current narrow sectoral approach in the laws and instead to introduce a comprehensive approach integrating water in all sectors and strengthening cross-cutting instruments such as environmental impact assessments.

Much of the challenge of adapting the Czech water sector to climate change is thus still ahead of us. At the same time, the developments in this area will probably depend on the actual manifestations of climate change (whose extreme events are accelerating the introduction of new measures in legislation and practice), on the priorities of future Czech political representatives, and possibly on the wording of the Constitution if some of the proposed constitutional changes are approved.

The fact that the Ministry of the Environment has managed to address the critical comments and continues to work on amending Article 7 of the Constitution may be a signal that the seriousness of the problem is widely accepted. This would allow regional and local solutions to be effectively built on the constitutional level.

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