Did Romania's EU Accession Negotiations (2000-2004) Manifest Core-Periphery Nutrient Pollution in the Danube River?

The Role of Power to Govern a Common

Universität Regensburg

State Examination Admission Thesis
submitted to the
University of Regensburg (Germany)
by

Jonas Schmitt

Institute of History September 2021

Did Romania's EU Accession Negotiations (2000-2004)
Manifest Core-Periphery Nutrient Pollution
in the Danube River?
The Role of Power to Govern a Common

Abstract

This qualitative research focuses on factors of nutrient pollutant transfer from a core EU Member State (Germany) to the periphery (Romania) via the Danube River, discussing consequences of intensive Bavarian agriculture on the river and determinants for managing this collective action problem. Taking extreme socio-economic and political asymmetries among riparian states into account, my paper asks: Do German-Romanian power imbalances create and amplify unfair pollution management structures within the Danube River Basin (DRB)? On the example of the two outermost Danube states, it is examined whether Germany's assumed urge for power preservation relies on deliberately polluting co-riparians, and whether during Romania's accession negotiations the periphery had to make concessions in this regard to the more powerful core EU. By evaluating water-related documents of the EU environmental *acquis*, but also through semi-structured qualitative interviews with governmental and non-governmental policy experts, required data is obtained. Empirical analysis suggests that all Danube states are highly willing to enhance basin-wide water quality, with Germany as 'co-operative hegemon' pushing for high water protection standards. Considerable improvements are closely linked to ambitious legislation and a functioning river basin organisation that integrates the various actors and interests. Studying the topic of water pollution in the context of spatially separated polluters and those at the receiving ends has far-reaching implications: it reconfirms widely accepted principles for successfully managing common-pool resources and emphasises the importance of democratic policy-making regimes respecting both core and periphery concerns.

Table of Contents

List of Figures

List of Acronyms and Abbreviations

AC-IMPEL	Network for the Implementation and Enforcement of European Environmental Law in the Accession Countries
CAP	Common Agricultural Policy
CEECs	Central and Eastern European Countries
CMEA	Council for Mutual Economic Assistance [also COMECON]
DRB	Danube River Basin
DRBMP	Danube River Basin Management Plan
DüV	Düngeverordnung (Fertiliser Ordinance)
EC	European Community
ECSC	European Coal and Steel Community
EEC	European Economic Community
EIB	European Investment Bank
EU	European Union
FWK	Flusswasserkörper (River Water Bodies)
GDP	Gross Domestic Product
ICPDR	International Commission for the Protection of the Danube River Basin
IDES	Improving water quality in the Danube river and its tributaries by integrative floodplain management based on Ecosystem Services
ISPA	Instrument for Structural Policies for Pre-Accession
JDS	Joint Danube Surveys
LIFE	L'Instrument Financier pour l'Environnement
MONERIS	Modelling Nutrient Emissions in River Systems
N	Nitrogen
NATO	North Atlantic Treaty Organization
NPAA	National Programme for the Adoption of the Acquis

P	Phosphorus
PHARE	Poland and Hungary Assistance for Restructuring the Economies
RBO	River Basin Organisation
SAPARD	Special Accession Programme for Agricultural and Rural Development
StMELF	Bayerisches Staatsministerium für Ernährung, Landwirtschaft und Forsten (Bavarian State Ministry of Food, Agriculture and Forestry)
StMUV	Bayerisches Staatsministerium für Umwelt und Verbraucherschutz (Bavarian State Ministry of the Environment and Consumer Protection)
TAIEX	Technical Assistance and Information Exchange
TEC	Treaty Establishing the European Community
TEU	Treaty on European Union
TFEU	Treaty on the Functioning of the European Union
TN	Total Nitrogen
TNMN	TransNational Monitoring Network
TP	Total Phosphorus
UN	United Nations
UNECE	United Nations Economic Commission for Europe
WFD	EU Water Framework Directive
WWF	World Wide Fund for Nature

Introduction

> *"Water is not only an essential biological need and an increasingly valuable economic good; it is also* the *most politicized natural resource."*
>
> — Arun P. Elhance (1999: 232)

With 2,857 km, the Danube is Europe's second-largest river. From its sources in Southwest Germany, it stretches along ten Central and Southeast European countries before discharging into the Black Sea. The Danube River Basin (DRB) covers territories of 19 countries which makes it the most international river basin in the world (see Figure 1). The more than 80 million people living in the Danube's catchment are all dependent on this hydrogeological ecosystem. It offers them not only a free source of drinking water but also provides for energy production, transport, and agricultural irrigation. Apart from these daily ecosystem services, the Danube represents a natural habitat for a myriad of plant and animal species.

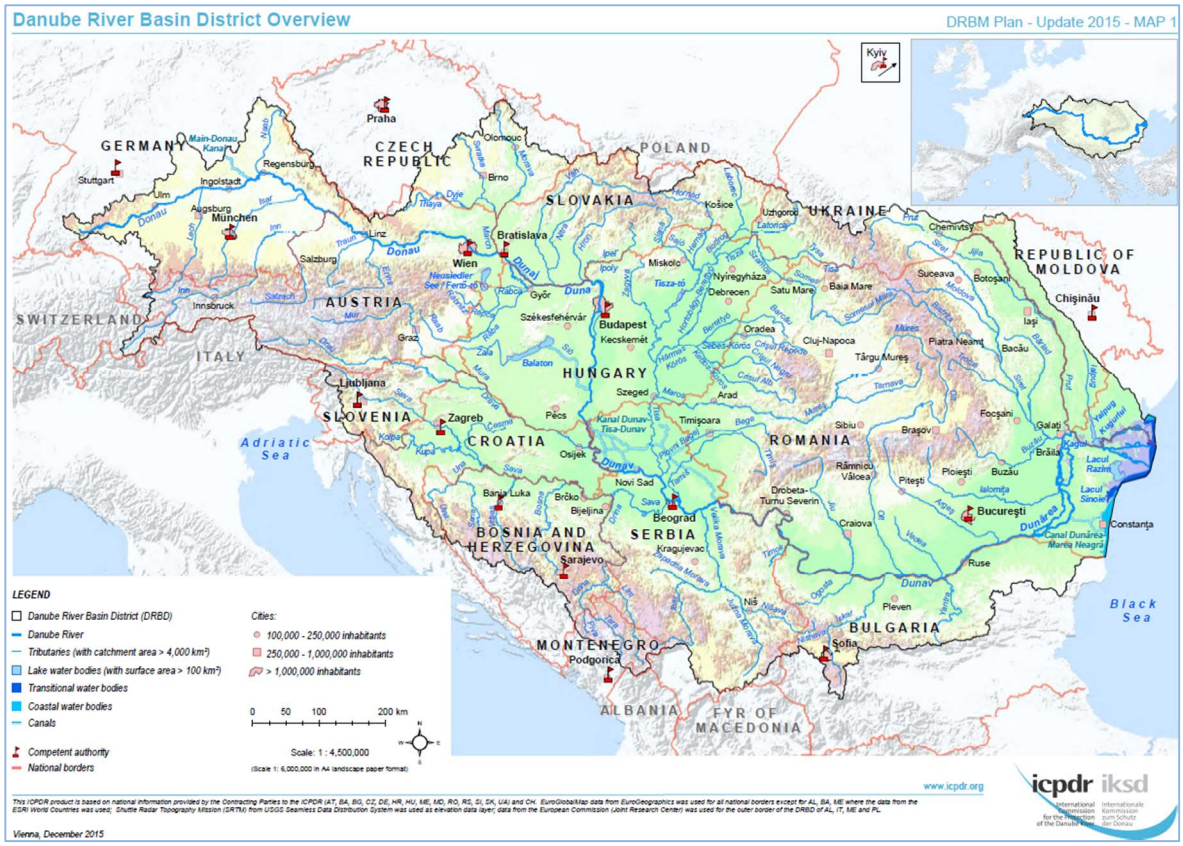

Figure 1: Map of the Danube River Basin (ICPDR, 2015a)

For decades, however, this internationally shared watercourse faces a significant management issue, nutrient pollution. Especially lower parts of the basin, namely the Delta in Romania and the Northwest Black Sea shelf, are under pressure from eutrophic conditions. The visible effect of eutrophication is often nuisance algae blooms which result from an overload of nutrients. Spatial profiles show that particularly upstream and midstream countries are responsible for nutrient inputs into the Danube. One major factor for, e.g., Germany's emission rate is intensive and highly productive agriculture. Owing to the gravimetric nature of rivers, though, downstream riparians such as Romania are made worse off. Hence, while some Danube states may take advantage of their upstream position and enjoy their economic well-being, others are more or less directly harmed by this behaviour.

This leaves us with a puzzle: Are downstream riparian states inevitably exposed to environmentally damaging upstream pollution within international river basins? Is the mere contribution of power along the Danube the only determinant for transboundary pollution? Or does it matter whether to be located at the EU's core, its periphery or even outside the Community?[1] This thesis addresses this puzzle by analysing the nature of the problem and how the constellation of two of the Danube's actors affects its handling. It asks:

> *Do German-Romanian power imbalances create and amplify unfair pollution management structures within the Danube River Basin?*

Along the Danube, Germany is not only the most upstream country. Modelling data shows that it also contributes most to nitrogen emissions and accounts for above basin average phosphorus inputs. Agricultural practices, namely over-fertilisation and high livestock density, are driving forces to the country's water pollution. Yet, these economic methods also guarantee bountiful harvest, high profitability, and they are door-openers to lucrative export markets. An interest for German agriculture is hence expected in keeping high productivity levels up while, at the same time, getting rid of accruing pollutants. Unusable, toxic waste is indeed occasionally but illegally shipped from the core EU country to peripheral regions such as Romania (Gherasim, 2021; Scott, 2021).[2]

---

1 In this thesis, the terms 'EU' and 'European Union' are used to describe the association of European states under a common legislative framework. This also refers to the time before today's European Union and therefore includes the terms 'European Coal and Steel Community' (ECSC), 'European Community' (EC) and 'European Economic Community' (EEC) as well.

2 In contrast to the usual practice in German academic papers in the subject of history, this thesis uses the Harvard citation system. This allows for better comparability of the sources used. Footnotes are only used for additional comments and minor digressions.

Regarding our topic, a considerable amount of literature shows that particularly transboundary rivers are used by upstream states to discharge wastewaters (Baranyai, 2020; Stefano et al., 2010; Giordano, 2003; LeMarquand, 1976; Linnerooth, 1990; Schmeier, 2013; Utton, 1973). Along these 'floating landfills', those situated right below the polluters are affected most. Within the DRB, Romania as the lowermost riparian receives upstream pollution with negative effects on water quality. Simultaneously, the downstream state itself hardly contributes to the Lower Danube's poor conditions. Once again, also here agriculture is decisive. Romanian farms are not yet as strong and 'industrialised' as, for instance, German ones. Accordingly, their discharge rates are (still) low. Due to its location, however, the country has no other opportunity but to receive accumulated pollution. This suggests the following hypothesis:

Hypothesis 1: *To maintain its intensive agricultural practices without suffering negative environmental externalities, Germany deliberately emits its nutrient surplus into the Danube. Romania at the receiving ends is doomed to bear the consequences.*

Such circumstances would certainly have aroused opposition in the country at Europe's periphery. Did Romania even consider suing Germany for its behaviour? In any case, the downstream riparian's EU accession negotiations (2000-2004) could have provided a platform for bargaining an immediate stop to upstream pollution. Negotiations between candidates and the EU are in fact considered a highly sensitive and crucial stage on the way to accession (Grabbe, 2001; 2006; Inglis, 2010; Nikolova, 2006; Schimmelfennig and Sedelmeier, 2005). However, role allocation seems pretty obvious. In terms of making demands, powerful upstream Germany would have certainly had more pull—all the more if public accusations of transboundary harm may have been on the table. Not Romania but the 'perpetrator' was thus expected to successfully bargain an arrangement in its favour. Usually, concessions and mutual commitments are integral to such moments of international diplomacy. As assumed, the unofficial treaty which may have resulted between the two countries could have guaranteed Romania's acquiescence regarding the reception of upstream pollution. In return, Germany as a country with a high impact on EU policy making may have advocated accession ease for Romania. As a result, alignment with national law would have

been facilitated for *acquis*[3] chapters of high priority to the candidate, first and foremost agriculture. Hints for such an agreement would be found in reports documenting negotiations of the environmental *acquis*. During the transition from communism to market economy, Romania's focus was put less on environmental and more on economic capacity building. Hence, water quality could have served as an effective bargaining chip for Romanian negotiators to gain accession benefits. Overall, this assumed deal would have only worked due to the massive power asymmetry between the two countries. While Romania's chief goal was to enter the Union as soon as possible, Germany as most powerful core Member State could have tightened conditions entirely to its own liking. This leads to the following expectation:

Hypothesis 2: *During Romania's EU accession negotiations, Romania was forced to concessions by powerful Germany on transboundary nutrient pollution. In exchange, the candidate was granted exclusive transitional periods to comply with European legislation.*

Literature on watershed diplomacy, international water law, and nutrient pollution in rivers is rich (Baranyai, 2020; Bernauer and Kalbhenn, 2010; Brochmann and Hensel, 2011; Stefano et al., 2012; Dinar, 2008; Elhance, 1999; 2000; Giordano, 2003; Ferrier and Jenkins, 2021; Keessen et al., 2008; Wolf et al., 2003). From a social science perspective, however, only few scholars have applied these theories to the Danube, the river's problems, and the conflicts arising from them (Linnerooth, 1990; Margesson, 1997: 30-34; Rieu-Clarke, 2006: 83-84; Schmeier, 2013: 171-216; 2021: 321-322; Weller, 2010: 287-302). And systematic analyses of the role of power between the two outermost Danube states on the highly complex issue of cross-border nutrient pollution are virtually non-existent.[4] This paper is an attempt to fill this gap. Research relies on a number of different sources. Primary documents

[3] A definition of the *acquis* is provided by the European Commission (1997a: 8): "The *acquis communautaire* [hereinafter '*acquis*'] includes the directives, regulations, and decisions adopted on the basis of the various Treaties which together make up the primary law of the European Union and Communities. It is the term used to describe all the principles, policies, laws and objectives that have been agreed by the European Union. It includes the Treaties, all Community legislation, all the principles of law and interpretations of the European Court of Justice, all international agreements signed by the European Commission as interpreted by the declarations and resolutions of the Council of Ministers. It goes much further than simply the formal legislation – acceding countries need to comply with the spirit as well as with the letter of EU legislation."

[4] If any, then Schmeier's (2013) assessment of factors determining river basin governance effectiveness provides a good orientation for discussing this topic.

such as communications, guidance documents, or policies issued by the International Commission for the Protection of the Danube River (ICPDR)[5] and the EU are widely distributed and easily available. They are used to both complement and test theories obtained from secondary documents. Besides above-mentioned social sciences, hydro-politics, and international relations, these secondary sources also draw on natural sciences (Liska, 2015; Malagó et al., 2017; Popovici, 2015; Vinten, 2021). Difficulties in understanding technicalities in pollution monitoring or agricultural practices could be clarified through expert interviews (Brandner, 2021; Kovacs, 2021; Melchner, 2021; Pernpeintner, 2021). Chapters in editions on policy making in the European Union (Sedelmeier, 2010; 2015; Schimmelfennig, 2006) and EU documents delivered general information on Romania's accession process and negotiations.

To gain additional insights into everyday practical transborder water management, interviews with ten experts were conducted. Semi-structured guidelines were used to gather information from each respondent independently. Qualitative data analysis was performed by using MAXQDA 2020 (VERBI Software, 2019). The interview partners have been selected along four different groups—representatives of the ICPDR and its Secretariat, water management representatives of the Romanian and German government, government officials of Bavarian agriculture, and non-governmental experts in the field of freshwater management.[6] Allowing for additional in-depth descriptive knowledge, these interviews have been an essential compass to test the hypotheses and answer the research question. Owing to the assumptions' truly provocative nature, it was expected that getting interview partners will be a major challenge. However, most of the persons contacted replied to the request quickly. Were they encouraged to defend their daily work on managing the basin? In any case, I am deeply grateful that they all took their time to give detailed insights into their perspectives on the issue at hand. Even for the time after the interview, many offered additional support to this project, for instance by doing technical fact-checking or pointing out to related re-

5 Created in 1998, the ICPDR's mission is "to ensure the sustainable and equitable use of waters in the Danube River Basin". The work of the Danube's river basin organisation is based on the *Danube River Protection Convention* (hereinafter 'Danube Convention'; ICPDR, 1994), "the major legal instrument for cooperation and transboundary water management" (ICPDR, 2021a). As a coordination and negotiation platform for all Danube riparian states, the ICPDR with its Vienna-based Secretariat is committed to political neutrality.

6 Except for one, each interviewee is referred to with their surname as well as with the year the interview was conducted. More detailed information can be found in the References ('Primary documents') and the Appendix: List of Interviews.

search and activities. Each talk was characterised by open communication, mutual appreciation, and high interest in contributing to a differentiated research outcome. Two findings are particularly remarkable: first, Romanian respondents explicitly acknowledged Germany's high standards in water protection—despite the country's high emission rates. Interviewees from Germany, on the other hand, were totally aware of the concerns downstream riparians such as Romania have with upstream pollution flows. And second, several experts of both countries pointed out that me gathering many key figures' voices "certainly contributes to a better understanding of our counterpart's interests, fears, and wishes when negotiating future water management issues".

Findings:

To check *Hypothesis 1*, the first chapter evaluates current governance practices within the DRB. The analysis is based on secondary literature on political relations and international watercourse management. Complemented by data obtained from both interviews and policy documents, theories are tested and applied to the Danube catchment. Three determinants are crucial to effectively govern this international system: the problem structure, the situation structure, and the legislative framework. Eutrophication of the Lower Danube due to excessive nutrient amounts in the river is considered the core problem. The subsequent situation-related discussion revolves around a certain question: in which way do existing upstream-downstream relations and the degree of regional integration of riparians influence the DRB's issue resolution ability? In a third step, the EU Water Framework Directive (WFD)[7] is discussed as legislation that both addresses the problem and integrates the actors in the basin.

As findings clearly suggest, neither of these three governance determinants indicate that Germany intentionally discharges nutrients into the Danube. Rather, the powerful upstream state has high interests in a good Danube water quality. Its water management sector is considered a key driver for basin-wide cooperation. Water management interests, however, often clash with interests from industries such as agriculture. Even though the latter commits itself to water-friendly practices, it is still by far Germany's largest contributor to nutrient emissions into the Danube. Yet even if intended, downstream states would have little chance to publicly sue Germany for polluting their waters. The reason for this is neither to be found in a low prioritisation of environmental protection nor in simply deferring to the powerful upstream state. The dilution of pollution concentrations at the border to Austria or difficulties

7 Directive 2000/60/EC (European Commission, 2000a).

in tracing back diffuse pollution sources are not decisive either. Instead, mutual understanding, diplomacy, and fair negotiations are promoted and successfully executed by the ICPDR and its parties. This paves the way for intensive collaboration to tackle the collective action problem of transborder nutrient pollution.

Jumping to conclusions too quickly should, however, be avoided. A deal between only two Danube states may simply be disguised by strong cooperative ties among the remaining seventeen riparians. To check *Hypothesis 2*, the second chapter examines the peculiar and highly sensitive period of Romania's EU accession negotiations for a possible agreement. This period of alleged powerplay and diplomacy amid tough bargaining could have served as a breeding ground for immoral deal-making. Yet, negotiations over accession conditions were not as one might expect from international political bargaining. Hardly any leeway was given to derogate from the condition of fully implementing European law. Reassuring as it is, the evaluation of policies documenting Romania's negotiation progress on agriculture and environment confirmed this. Hence, the idea of an agreed deterioration of Romania's Lower Danube ecosystem was understandably rejected during interviews. Romania was also not granted any transitional periods in line with an 'economy vs. ecology'-kind of deal. In fact, the EU, Germany and Romania were all particularly interested in advancing the candidate's water management sector. In the long-term, this should secure a basin-wide good water quality—for some time, improvements can be registered. By this, last doubts are dispelled whether Germany, by deal, was allowed to pollute Romania's river stretch. This suggests that also *Hypothesis 2* is to be rejected.

Overall, the combination of both chapters shows that there is a strong consensus among Danube riparians; water pollution can only be successfully tackled together. Yet still too often, end-of-pipe approaches prevail in the basin, pollution sources and the consequences are decoupled. It should, though, not be the responsibility of the environment sector alone to care about clean waters. Only process-integrative management structures drawing attention also to contributors of water pollution can lead to good environmental and chemical conditions for all parts of the Danube. Inferring from this, power imbalances between Germany and Romania do not per se create or even amplify unfair and intended upstream-downstream water pollution. Rather, socio-economic differences—varying stages of agricultural development in particular—almost inevitably result in unequal emission rates. Altogether, instead of mutual exploitation in the basin, reciprocal support, knowledge transfer and esteem determine relations within this multi-faceted international and ecological unit.

Managing EU Core-periphery Water Pollution: Governance Determinants within the Danube River Basin

The consequences of a deal between Germany and Romania would have revealed themselves over the last 20 years. Not only the Danube ecosystem but also the river's riparian states and their political and diplomatic relations would now suffer under such agreed conditions. To check current circumstances, this chapter discusses three key governance determinants prevalent within the DRB as an international watercourse[8]: first, the nature of the problem (here, upstream-downstream nutrient pollution); second, the constellation of actors (here, focus on the relation between upstream Germany and downstream Romania); third, the legal bases and water law principles (here, the WFD).[9] The first two determinants are regarded as 'exogenous' factors influencing the effectiveness of river basin governance. The third determinant can be grouped under the category of 'endogenous' factors and refers to the institutional and legislative design of the DRB and the ICPDR (Schmeier, 2013: 4).

As will be shown, findings from both literature and in-depth interviews do not square with *Hypothesis 1*. Germany—or more precisely, German agriculture—is not deliberately exploiting the Danube for wastewater discharge purposes at the expense of downstream countries such as Romania. All evidence shows that there is no explicit 'agenda' whatsoever which tacitly accepts environmental damages downstream only to maintain intensive and highly productive agriculture. Rather, negative environmental externalities happen almost inevitably. German authorities are aware of this, and so are states further down the river. To keep the damage to a minimum, Germany imposes itself a water protection legislation going beyond EU standards. The powerful upstream country furthermore uses its influence to push for basin-wide collaboration on this significant water management issue. Overall, this analysis allows for drawing first inferences on *Hypothesis 2* which will be considered in the second part of this thesis.

---

8 This analysis follows a structure for understanding governance patterns within internationally shared rivers that was suggested by Schmeier (2013).

9 A groundbreaking contribution to the analysis of self-organised collective action was made by Ostrom's (1990) research on the commons. She suggests eight "design principles" (Ostrom, 1990: 90-102) for governing common-pool resources such as the Danube, e.g. 'clearly defined boundaries', 'monitoring', or 'conflict-resolution mechanisms'. Albeit not being explicitly discussed in this paper, many of these widely accepted principles are also found in the literature drawn upon when analysing governance determinants for tackling transboundary nutrient pollution in the DRB. Taking the example of the Danube, this thesis tries to figure out, among others, if Ostrom's principles for successfully and sustainably managing this international common can be reconfirmed.

Nutrient Pollution: Multidimensional Collective Action Problem for Danube Riparians

This chapter discusses the first of the two exogenous determinants for effective governance within international river basins, the problem structure. In four subchapters, and with a special focus on the DRB, the problem of nutrient pollution from upstream towards downstream is evaluated. Due to its effects on all Danube countries, there is in fact a strong consensus among them that nutrient pollution is a water management issue of political significance. Since the Danube and its resources provide benefits throughout the basin, good water quality is highly valued by all riparians. Only a uniform implementation of adequate and coherent measures to reach this common goal is still pending, particularly in the field of agriculture. Moreover, due to an increasing dependency on water supply especially in the more arid south of the river, the quality of the Danube is assessed in absolute terms.

These conditions lay the foundation for joint efforts and cooperation on tackling both cross-border and local nutrient pollution in the Danube. The entire administrative, political, and environmental context clearly suggests that no riparian ever had the intention to deliberately defect from cooperation. Pollution of the river at the expense of others is genuinely tried to be avoided. Hence, high nutrient emissions could have been decreased considerably since the late 1980s. Kovacs and Zavadsky (2021: 180) point out that this was, on the one hand, "in response to the measures implemented in the Basin". On the other hand, also the "declined intensity of agriculture" due to the "closure of large-animal farms and lower fertilizer application rates" contributed to this positive development (ibid.).

Type of problem: eutrophication through nutrient pollution

The nature of rivers crossing borders renders all riparian countries of a shared catchment physically interdependent to each other. Transboundary natural resources such as the Danube are therefore seen as "a prime locus for collective action problems" Schmeier (2013, p. 21). Generally, some of these problems are more conducive to cooperation and thus resolution than others. As Efinger and Zürn (1990, p. 67) argue, "the characteristics of the issue-area in which a conflict occurs (…) predict, to a large extent, whether the conflict is dealt with cooperatively or by using unilateral self-help strategies" (ibid.). Generally, when resources are scarce the likelihood for effective cooperation and conflict management is rather low. This holds true especially for water scarcity, since "gains from water usage (…) by an upstream country state result in losses for one or more downstream states, which produces zero-sum interactions" (Hensel et al., 2006: 388). However, as Dinar (2009a: 112) and Wolf

et al. (2003: 44) emphasise, water scarcity issues can just as well lead to higher cooperation. One reason for this is found in the interdependence of basin countries and their pursuit of avoiding basin-wide ecological imbalances (Brock, 1992: 99), making the creation of a "network of common interests" (Deudney, 1991: 26) more likely. Among the world's river basins, water quantity issues are most prevalent, closely followed by water quality events (Schmeier, 2013: 67-68).

Beyond the distribution of certain key issues in river basins, Stefano et al. (2010: 878) analysed over time how likely they were to provoke conflicts. They found that roughly half of all events were conflictive, with an upward trend. For water quality-related issues such as transboundary nutrient pollution, the overall conflict potential is lower than for water quantity. Yet also here, a considerable increase from 24% (1948-1999) to 35% (2000-2008) is to be noted. Other issues such as hydropower, joint management, flood control, or technical cooperation are less conflictive thus more cooperation-conducive than water quantity and quality events. Some collective action problems, e.g. fisheries or navigation, which are not immediately related to the use, preservation, management and protection of cross-border freshwater bodies, even foster cooperation (Dinar, 2009a: 112).

Hence, a distinction can be drawn between more malign problems within catchments and more benign problems. River pollution counts as a "largely malign" problem (Schmeier, 2013: 282 and Appendix 3.3) exhibiting 'tragedy of the commons' characteristics. On the other hand, collective action problems such as technical cooperation, fisheries or navigation are considered benign (Bernauer, 1997: 170). Overall, and based on an empirical analysis of 116 river basins, Schmeier (2013) concludes that "RBOs [River Basin Organisations] are more effective in governing shared watercourses if the collective action problem is benign instead of malign" (ibid.: 70) and if it is "related to issues other than water quantity and water quality" (ibid.: 113).

In the DRB, the predominant type of problem is water pollution. Already in 1994, the Danube Convention acknowledged: the contracting parties are "[e]mphasizing the urgent need for strengthened domestic and international measure to prevent, control and reduce significant adverse transboundary impact from the release of (…) nutrients into the aquatic environment within the Danube Basin" (ICPDR, 1994: Preamble). This prioritisation of water pollution is a reaction to the Danube's water quality conditions in previous decades. Since the 1960s, and coming to a head in the late 1980s, excessive amounts of nutrients from domestic and agricultural sources were discharged into the DRB's water bodies (Kovacs and

Zavadsky, 2021: 179-180). This resulted in highly eutrophic waters particularly in the Delta and the Northwest shelf of the Black Sea (ICPDR, 2021b). Moreover, official documents published by the ICPDR, such as the Joint Danube Surveys (JDS) (ICPDR, 2002; 2008; 2015b; 2021c) and the Danube River Basin Management Plans (DRBMP) (ICPDR, 2009; 2015c; 2021d)[10], emphasise the still overarching importance to (cooperatively) deal with water pollution. The first three "Significant Water Management Issues" identified in the basin all directly refer to pollution, among others pollution by nutrients (ICPDR, 2015b: 5: 2015c: 6-7; ICPDR, 2021d: 7-8). This correlates with statements of interviewees acknowledging water pollution as collective action problem. A high official in the Romanian water resources management sector, for example, pointed out that "this is the situation, and everybody will have to take the measures required". The fact that large parts of the basin were designated as sensitive areas to nutrient pollution causing eutrophication in the Black Sea coastal area underpins the international scale of the problem.

Central to this thesis, nutrient pollution through high levels of nitrogen (N) and phosphorus (P) influxes due to agricultural practices is considered a "major pressure" on water quality in the DRB (Liska, 2015: 5). Both N and P are available in excess quantities within the Danube, However, basin-wide total nitrogen (TN) emissions are about 20 times higher than total phosphorus (TP) emissions. With an overall proportion of 84%, diffuse N inputs dominate the basin-wide nutrient emissions (ICPDR, 2015c: 26). The main diffuse source is agriculture (especially fertilisers and erosion), accounting for up to 65% of TN emissions (Malagó et al., 2017: 214; Popovici, 2015: 32-33 and 37). Consequently, "[r]egions with high agricultural surplus (…) produce the highest area-specific emissions" (ICPDR, 2015c: 26). Analysing the spatial or country contributions to the TN emissions in the basin, Germany has had by far the highest mean values for 2009-2012, while Romania in comparison contributed not even one-fourth of the German quantity (ICPDR, 2015d: Annex 5).[11] The gross N balance[12] on agricultural land substantiates this finding: for the period 2004-2015, Germany had an N surplus of about 80 kg/ha/yr. Romania as the lowermost DRB riparian only had values oscillating around zero (Eurostat, 2018).

---

[10] Besides these basin-wide management plans, which are updated every six years, each Danube country is obliged by the EU's WFD to set up a national management plan.

[11] Compared to Germany's TN emissions accumulating to an average of about 200 kgN/ha/yr, the DRB average is at about 75 kgN/ha/yr.

[12] The nutrient balance results from the difference between the amount of nutrients put on fields through fertiliser application and the amount of nutrients removed through harvest. If the sum is above zero, negative impacts on soil and water may result. If the sum is below zero, soil and crops may suffer nutrient scarcity which influences the quality and quantity of agricultural produce.

Both in Germany and the entire DRB, groundwater flow accounts for roughly 55% of the overall TN emissions (ICPDR, 2015c: 26-27). After fertilising fields with N, the nutrients first remain and infiltrate in the soil and are then transported to the groundwater. The groundwater is linked to surface waters, and via subsurface flow, considerable amounts of N reach the Danube's tributaries and to a smaller extent also the main river itself. Overall, regarding TN emissions a "slight" to "strong" decreasing profile from upper to lower Danube stretches can thus be determined (ICPDR, 2015b: 192 and 197; 2021c: 216). These observations suggest that German agriculture is the main contributor to downstream eutrophication. Circumstances, nevertheless, are not as clear when it comes to monitoring and controlling. Despite sophisticated applications for determining nutrient emissions for the entire basin[13], "it is still tricky particularly for diffuse pollution to track down every single source" (Kovacs, 2021). This makes it very difficult to accuse each other of transborder diffuse nutrient pollution within an international catchment, as Jekel (2021) and a senior Romanian water management administration representative emphasised.

And results from MONERIS even show that the problem does not reveal itself immediately—the increasing amount of water from tributaries dilutes the nutrients. Therefore, the overall N concentration in the Danube is by far not as high as it is in its confluences (Kovacs, 2021). In fact, already at the border to Austria alpine tributaries dilute the Danube's waters to such an extent that high nutrient concentrations turn to levels no longer considered harmful to health and natural ecosystems (Brandner, 2021; Korck, 2021; Kovacs, 2021). Consequently, and in addition to dilution, retention renders Bavarian nutrient inputs basically ineffective on the Lower Danube and the Black Sea Northwest shelf (Bayerisches Staatsministerium für Umwelt und Verbraucherschutz [StMUV], 2015: 125). Hence, and since "nitrates is mainly a groundwater issue", it is fair to say that "*Bavaria* has a problem with nitrates, but not necessarily the Danube" (Grambow, 2021; italics in original).

When assessing the impact of upstream N emissions on further downstream Danube stretches, a second nutrient responsible for eutrophication must be considered as well, phosphorus. As a 'limiting nutrient'[14] in aquatic ecosystems, P controls the pace at which algae and aquatic plants are produced. Only the combination of excessive N and P quantities leads to water quality problems such as eutrophication (Galatchi and Tudor, 2006, 61-63; ICPDR,

[13] The model MONERIS ("Modelling Nutrient Emissions in River Systems") is used in the DRB to explore diffuse pathways of nutrient emissions (IGB, 2021).

[14] Importantly, P is a limiting factor only for the coastal Black Sea area, while offshore waters are N-limited.

2015c: 20). Acknowledging the primary role of P on the Danube's water quality, attention should be drawn to the amount of P discharged into the river. As far as upstream Bavaria is concerned, P emissions from point sources[15] are steadily reduced due to improvements in urban wastewater treatment. Thus, diffuse sources accounting for about 60% of TP emissions are increasingly focussed on. A key monitoring point to assess the level of German P pollution is just before the river Inn flows into the Danube.[16] MONERIS data from 2017 suggests that about 25% of TP emissions stem from sewage treatment plants and almost 55% are attributed to diffuse agricultural pollution.[17]

Compared to the entire DRB, Germany's TP emissions are slightly above average. Countries such as Slovenia, Croatia or Serbia have considerably higher values, mainly owing to shortcomings regarding urban wastewater treatment (ICPDR, 2021e : 9).[18] Consequently, these midstream states have a more immediate impact on the water quality in the Lower Danube region than upstream inputs from Germany.[19] Nevertheless, also "phosphates from agriculture put into the Danube in Bavaria can get all the way down to the Delta, yet not as dissolved phosphorus causing algae blooms but as particulate-bound phosphorus leading to sludge in the Delta" (Brandner, 2021). In case of too much sludge accumulating in the Delta, much oxygen is needed for its decomposition. This oxygen, however, is also required by aquatic animals and plants to live. If there is no oxygen available at all, anaerobic microorganisms become active. This is bad for the water quality since these bacteria transform the Delta sludge into toxic gases. Toxic waters again have negative impacts on the ecosystem and its inhabitants. As "upstream agricultural pollution is indeed one source for eutrophication in

15 About 40% of total P inputs in Bavaria are attributed to point sources, of which sewage treatment plants (26%) and wastewater sewage systems (10%) count as major direct contributors (data from Brandner, 2021/Wasserwirtschaftsamt Regensburg).

16 River water body [Flusswasserkörper; FWK] monitoring point "Donau: FWK 1_F478".

17 Main contributors to agricultural diffuse pollution at FWK 1_F478 are erosion (36%), soil run-off (15%) and drainages (3%). Only 8% of total P emissions are linked to groundwaters as further diffuse source (data provided by Brandner, 2021/Wasserwirtschaftsamt Regensburg).

18 As pointed out by Kovacs (2021), treating wastewaters appropriately in less developed and less wealthy mid and downstream states "is not only about investment". Rather, highly expensive treatment plants are often not operated "due to a scarcity of skilled staff". Furthermore, "high operation costs would result in higher water prices, and this is dangerous for politicians who want to be re-elected". A Bavarian water management official thus inferred that an effective application of wastewater treatment plants in all Danube states is "a necessary first step towards basin-wide good water quality" (Grambow, 2021).

19 Romania as the lowermost Danube country has currently the third lowest TP emissions. However, many interviewees were concerned that agriculture in the large downstream state could soon become as intensive as in Germany or Austria. If there are no structural reforms towards sustainable farming, this might turn Romania into a major contributor to eutrophication in the Danube Delta and the Northwest Black Sea shelf.

the Danube" (Ionescu, 2021), Bavarian agriculture follows the "intention to decrease phosphorus influxes into the Danube's tributaries which extend into the farmlands" (Melchner, 2021).

Overall, the 'largely malign' collective action problem of nutrient pollution along the Danube poses a risk especially to countries in the Lower Danube region. Due to dilution and retention, upstream agricultural pollution is generally considered a minor contributor to eutrophication in the Danube Delta. High P pollution rather originates from insufficient wastewater treatment in middle and lower Danube riparians. Nevertheless, "Germany still has the responsibility to further decrease its nutrient inputs" (Jekel, 2021), for despite some success "we are still far away from good ecological and chemical status" (Arzet, 2021). Compared to other sources of pollution such as urban wastewater, though, Kovacs (2021) made a case for the uppermost riparian: "Agriculture is so much interconnected and rooted with policy issues and interests that I wouldn't blame Germany for the large surplus in comparison to other Danube countries". Within the ICPDR, a fear is shared by many experts: a large downstream country such as Romania could become more powerful in agricultural terms without simultaneously meeting environmental standards. This might lead to considerable inputs into the Danube and could substantially worsen the water quality in lower stretches, the Delta and the Northwest Black Sea shore.

Policy level

Having the type of problem identified, its solution-effectiveness fundamentally depends on the extent to which the problem affects the riparians' respective security. Most generally, "threats to security include resource and environmental problems that reduce the quality of life and result in increased competition and tensions among subnational or national groups" (Gleick, 1993: 81-82). In more extreme cases, this might even lead to violent conflicts. Countries attach great importance to water as an essential resource for economic growth, social development or immediate security considerations. However, some issue-areas are more important to downstream countries than to upstream countries and vice versa. Water quality, for example, is particularly concerning for downstream countries as they receive the waters coming from upstream. If upstream riparians exploit the shared watercourse, e.g. for wastewater discharge purposes, countries at the receiving ends must deal with the river's deteriorated waters. This leads to a quasi-zero-sum game where "the polluting country typically harvests all the benefits of the activities causing pollution and suffers only a certain fraction of the damage" (Underdal, 2002: 18). As Brochmann and Hensel (2011: 861) make

clear, if the downstream state believes that the upstream state's actions have transboundary and harmful effects, "it may respond by making explicit demands that the [upstream] state stop or modify its actions". From an upstream country's perspective, an interest in pollutive practices may indeed be given. But quitting this behaviour likely affects its national security less than it improves the downstream riparian's one. Thus, water quality-related considerations are usually more important to downstream than to upstream countries. This inevitably leads to different assessments of the political importance of the problem. Therefore, scholars on hydro-politics classify issues as 'high' and 'low politics' problems. Security-related collective action problems are referred to as 'high politics', whereas problems with hardly any or no impact on national security are seen as 'low politics'.[20] Accordingly, "RBOs are more effective if the policy level of the collective action problem at stake is low" (Schmeier, 2013: 72).

Waters contaminated by an overload of nutrients not only seriously threaten human health, animals, and plants living in the Danube. They also constrain farmers and other industries using the Danube's waters for irrigation or processing purposes. Sound water quality is thus expected to be of a high political level to all Danube countries. Yet due to their higher N inputs into the Danube, up- and midstream states appear to have lower interests than downstream riparians to secure a good water quality. In fact, however, almost all basin states discharge polluted waters into the main river or its tributaries. And different stages of development between countries directly influence their capacity to treat agricultural and urban wastewaters. When comparing the Danube's uppermost (Germany) and its lowermost (Romania) country, differences exist regarding the use of the river for water supply reasons: while Romania is highly dependent on the Danube for getting drinking water, Germany has no major interest in exploiting the river for water supply (ibid.: 176 and 294).[21] This might prove as an indicator for why Germany's security is not as much threatened by polluted waters as Romania's. Water pollution is hence of higher politics to Romania than to Germany. Indeed, as a Romanian government official with many years of experience in managing the DRB made clear, "from an environmental point of view, pollution affects Romania". The underlying reasons are manifold: almost half of the Danube is flowing under Romanian

[20] For a summary of the research on the policy level of collective action problems within a river basin, see Schmeier (2013), p. 33.

[21] Rather, the Danube in upstream Bavaria provides an important waterway, is a source for energy through hydropower and serves as a way to discharge cleaned wastewaters. Furthermore, it fulfils social functions in terms of water-related activities such as canoeing, swimming or fishing (Brandner, 2021).

territory; the river provides a pivotal water resource especially for the southern part of Romania; the damage of the Delta and its natural assets by pollutants and sludge settling there is considered a major concern for the country (ibid.).

On the other hand, there is the German agricultural sector which not only supplies the domestic but also the world market. This exerts pressure on the Danube and its tributaries. To increase its productivity, an ever more intensified agriculture is dependent on large amounts of organic or chemical fertilisers containing N and P. To keep up with external and internal market pressures, especially large industrial plants tend to over-fertilise their soil. This results in high nutrient discharges into groundwaters. Water bodies in the vicinity of over-fertilised fields run the risk of being contaminated by soil erosions or drainages after heavy rainfall or floods. As a consequence, today more than 80% of Bavarian surface waters are contaminated by nutrients. The critical role of German agriculture was emphasised by the German Head of Delegation to the ICPDR. She argued that if other less developed downstream countries followed Germany's agricultural practices suit, they would also contribute much more to the overall nutrient pollution than to date (Jekel, 2021). Also, a representative from the Bavarian agriculture administration acknowledged that "agriculture is one branch of the economy that contributes to nutrient emissions" (Melchner, 2021). Therefore, the German Düngeverordnung (DüV) [Fertiliser Ordinance] requires farmers to respect a certain minimum distance of 4 metres in which manuring is not allowed (DüV, 2017: § 5(2)-5(3)).[22] According to another agricultural government official, Bavaria has ever been keen on thoroughly implementing the Ordinance. For agriculture administration, as Pernpeintner (2021) pointed out, "water protection is of high importance. There is no contradiction between productive agriculture and water protection". Farmers are increasingly convinced that agriculture can only thrive in the future if water management is more respected. "Over the last three decades", this resulted in "a fundamental positive change in terms of nitrogen" (ibid.). From the perspective of water management, though, German agriculture still appears to have more interests in productivity than in environment-friendly practices and strict law compliance.

[22] In Bavaria, the DüV is effective since 1996 and transposes the EU Nitrates Directive (European Council, 1991: Council Directive 91/676/EEC) into national law. After several years of slow progress, the European Commission sued Germany for not complying with EU standards for agricultural nutrient emissions. Germany therefore had to revise its legislation by tightening rules and closing loopholes. This led to amendments to the ordinance. The latest version of 2021 requires farmers to record several details regarding the application of fertilisers in their fields. This includes information about the size of fertilised land, the kind of fertiliser, and the total amount of N and P applied (DüV, 2017: § 10(2)). For more information on regulations and obligations to be met by Bavarian agriculture regarding the Nitrates Directive, see Bayerisches Staatsministerium für Ernährung, Landwirtschaft und Forsten [StMELF] and StMUV (2020).

Large and highly intensive plants "put as much fertiliser on the fields as they can since they want to maximise the harvest. However, they represent pollution hot-spots, which should meet high environmental standards and should be subject to regular controlling" (Kovacs, 2021). Malagó et al. (2017: 214) hence infer that "if agriculture (…) discharges are not managed properly, (…) the severe eutrophic conditions of the late 1980s might occur again" in the Lower Danube and the Black Sea (see also Kovacs and Zavadsky, 2021: 179).

Overall, interviewees stated that no downstream country has ever made legal or financial claims against Germany for the damage resulting from cross-border water pollution.[23] This seems to contradict Romania's perception that nutrient pollution directly affects the country's security. It could, however, also show that no riparian wants to threaten the cooperative spirit within the basin by directly accusing the most powerful Danube state. A Romanian water administration official confirmed this idea of cooperation among Danube riparians. As a representative from a country where "the Danube comes from upstream with the pollution", the interviewee addressed a clear message to upstream states: "Please, let's do something together to solve the problem!". In fact, Germany's water management sector has considerable interests in good water conditions throughout the DRB. It promotes this vision by providing technical and financial means as well as by implementing strict water policies "going beyond the minimum requirements" (Grambow, 2021; Jekel, 2021; Kovacs, 2021). The high level of international cooperation and the significant improvements on nutrient pollution within the DRB shows that all countries are genuinely interested in good water quality. Different policy levels among single riparians regarding nutrient pollution are thus not seen as an impediment to effective cooperation. What is still necessary, though, is a full conviction of those sectors considered the 'pollution sources'—chiefly agriculture. Therefore, Arzet (2021) made clear:

> Agriculture should reflect on their own responsibility instead of shifting the discussion to other sectors just to have arguments for not changing their own attitudes and behaviour. Generally, the burden of proof is overwhelming that much of the non-point source pollution in aquatic environments originates from land use.

To increase the basin-wide policy level on nutrient pollution, a good alignment between agriculture and water policies is required in all Danube states (Kovacs, 2021).

[23] Article 5 of the UNECE (United Nations Economic Commission for Europe) Water Convention (UNECE, 1992) states that "[t]he Parties shall cooperate (…) for the prevention, control and reduction of transboundary impact".

Type of conflict

In addition to the type and the policy level of the problem, also the type of conflict influences the effectiveness of organised river basins to deal with issues such as upstream-downstream nutrient pollution. A widely acknowledged determinant for regime effectiveness lies in the distinction between conflicts about values and conflicts about means (Hasenclever et al., 1996: 192; Rittberger and Zürn, 1991: 168-171; Underdal, 2002: 17). Both are assessed as 'dissensual' conflicts in that "the actors disagree about what is desirable, not just for each of them individually but for all of them collectively" (Rittberger and Zürn, 1991: 168). In a conflict about values, as Hasenclever et al. (1996: 192) state, "actors hold incompatible principled beliefs regarding the legitimacy of a given action or practice". Conversely, as the authors continue, in a conflict about means "actors share a common goal but disagree about how best to pursue it" (ibid.). Taking the example of water pollution, the parties in the former type of conflict might argue about the value of good water quality. Naturally, this value is more likely to be acknowledged by the downstream countries than by a polluting upstream riparian. In conflicts about means, the measures to reach the common goal (here, a biochemically sound water ecosystem) might arouse disputes. Downstream countries may champion stricter environmental rules for pollutive upstream states, while upstream countries are expected to be more interested in levelling water protection standards for all basin states. Notably, though being characterised by an overall dissensus, "a conflict of interest presupposes a consensus, at least on the value of the good which is sought after by both parties" (Aubert, 1963: 29). This overlap of interests—dissensus on what is desirable, consensus about the value of the same scarce good—is "precisely what makes them parties to a conflict" (Hasenclever et al., 1996: 192). Overall, conflicts about means are more conducive to govern river basins effectively than conflicts about values.

As far as the DRB is concerned, all riparian states acknowledge water pollution as a "Significant Water Management Issue" (ICPDR, 2015c: 6-7). In terms of nutrient pollution, they share the "basin-wide vision" of a "balanced management of nutrient emissions via point and diffuse sources (…) that neither the waters of the DRB District nor the Black Sea are threatened or impacted by eutrophication" (ibid.: 114). Inferring from this, the value of good water quality is apparently not contested by any Danube riparian. Concrete measures necessary to reach this common objective are outlined and agreed upon in the Joint Programme of Measures (ICPDR, 2015c: 109-159). This is also legally required by Article 11 of the EU

WFD. Each member state within the DRB "shall ensure the establishment (…) of a programme of measures" (European Commission, 2000a: Art. 11.1 WFD) taking the environmental objectives for surface waters, i.e., good ecological potential and good chemical status (ibid.: Art. 4.1 WFD) into account. Regarding the constellation of actors within the DRB, non-EU states such as Serbia, Ukraine or Moldova are not legally bound to the WFD but nevertheless feel highly committed to the framework's objectives (ICPDR, 2001: 10).[24] Within the Joint Programme of Measures, EU and non-EU Member States shall implement management objectives such as: further reduction of the total amount of nutrients entering the Danube and its tributaries and the nutrient loads transported into the Black Sea; further reduction of the nitrogen pollution of the ground and surface waters by the implementation of the EU Nitrates Directive; ensuring sustainable agricultural production and soil nutrient balances and further reduction of the diffuse nutrient pollution (ICPDR, 2015c: 114).

Even though substantial contributions have been made under these measures, further efforts are still needed to effectively comply with the WFD objectives (European Commission, 2015a: 5-6; European Commission, 2015b: 42-49; European Commission, 2019: 9-10). It thus seems reasonable to first look at upstream Germany as a major contributor to nutrient pollution and the measures it has planned and/or implemented. Explicitly respecting the 'polluter pays' principle, the Bavarian management plan lists several measures which were implemented to effectively reduce the impact of nutrient surplus. Excess levels are mainly caused by agricultural practices on ground and surface waters. These measures, e.g. establishing water protection areas along agricultural lands, are expected to have considerable effects on the overall reduction of N and P emissions into the Upper Danube (StMUV, 2015: 198-215).[25] Yet, there are still challenges to merge values and means between agriculture and water protection. Melchner (2021) argues that "agricultural practices are indeed—and this is in the nature of things—sometimes opposite to objectives of water management to maintain clean waters". By and large, however, Germany acknowledges its contribution to water pollution in the basin. The country is keen to not only fulfil the basic requirements of the WFD but to even go beyond them. A senior official of the Romanian Directorate for

[24] For these current non-EU states, the commitment to key policies such as the WFD requires them to build adequate infrastructure and administrative capacities. As they sooner or later might pursue EU membership, compliance now could facilitate their accession process later.

[25] As the example of the river Wenzenbach next to Regensburg shows, the total amount of buffer strips between fields and the river increased from 10 ha in 2015 to almost 50 ha in 2019. This led to an average drop in P river influxes by 36%, which now is very close to the maximum permitted value (data provided by Pernpeintner, 2021/Amt für Ernährung, Landwirtschaft und Forsten Regensburg, in cooperation with Brandner, 2021/Wasserwirtschaftsamt Regensburg).

Water Resources Management confirmed this: “I haven’t seen that Romania will implement stricter environmental and water protection standards than Germany”. The overall value of good water quality is contested neither by the agricultural nor the water management sector. A member of the ICPDR Secretariat reasoned that there is already a “willingness to achieve alignment between water policies and agriculture policies” (Kovacs, 2021). This makes it highly unlikely that the powerful upstream state and its actors intentionally exploit the Danube for wastewater discharge purposes at the expense of downstream countries.

Economically less developed riparian states, on the other hand, seem to struggle more to keep up with required standards of water protection. This was pointed out by a Romanian interviewee who criticised that affordability of measures has never been considered by the Commission when creating the WFD. Economic disparities within the DRB can thus be seen as a major impediment to a basin-wide successful implementation that required substantial financial and administrative capacities. The downstream water governance official went on saying that:

> In the DRB we established a Programme of Measures which is created for all Danube countries. But when starting to implement the measures, there are differences. Cooperation is working when we are planning; everybody agrees on what is not functioning well. But there are differences when we start to implement concrete measures.

Exemplified by the case of Romania, investments were primarily made in other than the water sector. During both the Communist time and the pre-accession process, water and environmental concerns were not sufficiently integrated into industrial and agricultural policies. Only with EU accession, highly needed subsidies were granted for investments in environmental infrastructure in Romania. The bulk of EU grants and domestic spending, as Ionescu (2021) and another Romanian representative stated, nevertheless went into politically more powerful sectors. This assessment of missing financial capacities as the reason for conflicts about means regarding water protection was qualified by a Bavarian water management official: “Germany is wealthy precisely *because* we have invested in water protection. If there is no investment in water and environment as common goods, states deprive themselves of prosperity and an enhanced quality of life” (Grambow, 2021; italics in original).

Overall, Danube riparians are not contesting the value of good water quality but rather the means to reach nutrient reductions necessary to avoid eutrophication. Especially for downstream states which are economically not as highly developed as Austria or Germany, prior-

ities were and still are more on socio-economic development rather than on water or environmental protection. Yet also in Germany, the conflict of interests between agriculture and water management leads to a value-means discrepancy. An effective resolution of the pollution problem is therefore highly dependent on an integration and a common strategy between agriculture and the environment. Furthermore, low capacities to invest in required water protection infrastructure and their operation hamper effective measure implementation required to eliminate nutrient pollution in the DRB. From this perspective, pollution happens more due to insufficient prevention measures rather than to deliberate political agendas of getting rid of excess nutrients.

Type of goods

The 'good' discussed above—in this case, water—is to a certain extent scarce, be it in quantity or quality. Appreciated as such by the conflicting parties, consensual disputes can further be distinguished into conflicts of interest about *relatively* assessed goods and conflicts of interest about *absolutely* assessed goods (Fearon, 1998: 296-297; Powell, 1991; Rittberger and Zürn, 1991: 168; Underdal, 2002: 17). Constituting a zero-sum game, relatively assessed goods are characterised by "that an actor's satisfaction from a given amount is dependent on the amount accruing to his competitors" (Hasenclever et al., 1996: 192). Hence, the value of the good 'water' "depends on the gains a competitor makes and the consequences this might have for the overall balance between these actors" (Schmeier, 2013: 34). As states directly compete for benefits, "[a] relatively-gains problem blocks mutually advantageous international cooperation" (Fearon, 1998: 296-297). Or, as Powell (1991: 1303) puts it, "[t]he more states care about relative gains, the more a gain for one state will tend to be seen as a loss by another and the more difficult (…) cooperation will be".

Applied to the context of international water law, the idea of relatively assessed goods complements the theory of absolute territorial sovereignty. This "early extreme" principle suggested by Utton (1973) is "often expounded to justify action by an upper riparian" (Baranyai, 2020: 31-32). According to this theory, an upstream state is "entitled to do as it chooses with waters within its boundaries, without regard to its coriparians" (Utton, 1973: 283). Relatively assessed goods are mainly found in water allocation problems, e.g. dams providing upstream countries with hydropower while restraining the water flowing downstream. A way to mitigate such absolute gains-problems can be found in RBOs establishing benefit-sharing systems to overcome unequally distributed benefits (Schmeier, 2013: 73). When, on the other hand, "an actor's enjoyment of its share neither increases nor decreases as a result of changes

in the quantity held by others", goods tend to be assessed absolutely (Hasenclever et al., 1996: 192). In international water law, the approach to assess goods relatively is akin to the theory of limited territorial sovereignty or integrity and to the community theory. In the former, "a state may make use of the waters flowing through its territory insofar as it does not interfere with their reasonable use by coriparians" (Utton, 1973: 283). The latter requires that the basin—seen as a unit—is jointly developed and managed; "benefits derived from cooperative development would be shared by the coriparians" (ibid.). Examples within the field of international watercourses, where goods for which values were attributed by one actor do not depend on the benefits of other actors, can mainly be found in the issue-area of navigation. Yet, also mutual benefits of infrastructure measures or the improvement of the river's ecological status acknowledge the possibility for win-win situations. Due to the riparian states' perception that a problem equally affects them and therefore equal benefits from a joint solution can be expected, this positive-sum game is considered a genuine driver for cooperation (Marty, 2001: 36). A basin-wide collective action problem such as nutrient pollution can thus be mediated and resolved more effectively if riparians contest goods perceived in absolute instead of in relative terms (Schmeier, 2013: 34-35 and 73).

According to their interests in the river and its manifold resources, all Danube riparians regard water and its quality as valuable goods. Most of these water resources use interests, e.g. for agricultural purposes, industrial use, or water supply, but also ecologically sound wildlife habitats, are highly dependent on a good water quality (ICPDR, 2015c: 1 and 97-107). Therefore, as outlined above, a consensus about the value of pollutant-free waters prevails among riparians and their relevant actors. Nonetheless, when looking at the bio-chemical parameters of spatially distributed nutrient influxes along the Danube, it appears that the single riparian states value the agreed-upon good differently. Germany as both the most upstream country and the Danube riparian with the highest N emissions per hectare is expected to assess the good water quality in relative rather than in absolute terms. Further downstream states such as Romania, which themselves contribute by far not as much to the overall nutrient pollution, might champion an absolute assessment. Thus, Germany seems prone to apply the absolute territorial sovereignty approach which is concomitant with a relative assessment of the good at hand. Due to its high economic activities, German nutrient influxes do "almost inevitably" occur (Grambow 2021; Melchner, 2021). Or, as an ICPDR representative put it:

> We do not want downstream countries being polluted because of heavily industrialised upstream countries. Yet this, of course, does not mean that Germany has to go back to

> less strong industrial levels but needs to implement effective pollution control based on the precautionary and solidarity principles. (Kovacs, 2021)

And a Romanian high government official acknowledged that "you simply cannot impose stricter rules on Germany or close factories in Germany only to decrease the amount of pollution coming from upstream". Jekel (2021), however, points out that Germany is by no means exploiting its strategic position at the expense of other countries. She acknowledged that "every riparian state has indeed own national interests which are tried to be enforced within a commission such as the ICPDR. But the principle of absolute territorial sovereignty is not applied anywhere in the basin". This assessment was approved by other interviewees. On the one hand, they stated that "for obvious reasons, whenever states interact with each other, political interests play a role" (Arzet, 2021). Yet, as the Bavarian Head of Division of National and International River Basin Management continued, "even though it is not Germany's general intention, we need to use the Danube for wastewater disposal. Besides technical necessities, it is just convenient; everything emitted into the river runs across the border sometimes and is gone" (ibid.). On the other hand, and against this background, a Romanian senior water management representative appreciated that "Germany is doing much more for water protection than other riparians". The country even supports the basin with technical and financial means for better research on and treatment of water pollution (Kovacs, 2021). Germany is thus keeping up with its long proclaimed high degree of engagement in improving the Danube's water quality throughout the basin (Holzwarth, 2005).

Against this background, the assumption that Germany assesses water quality in relative terms is therefore extremely unlikely. For countries further downstream, on the other hand, it is essential that the Danube waters are distributed equally among all riparians, both in quality and in quantity. Considering this absolute assessment of water and its quality, downstream countries shall not be restricted to use waters of only poor quality. Nevertheless, this seems to be the case, especially for the Southern Romanian Danube region. There, transboundary pollutants coming from upstream have detrimental effects on the aquatic environment. This, as a Romanian water governance official made clear, poses a real security threat to people and nature (see also Popovici, 2015: 26). Upstream and midstream countries can thus be expected to not wholly assess water quality as common good absolutely either. Even if unintentionally, they inflict harm to others through unsustainable pollution management. Hence, water quality seems to be assessed at different levels along the river. Regarding Germany, the water management sector is very active in terms of basin-wide water quality improvement. At the same time, its agriculture has one of the highest emission rates in the

basin. Efforts must still be made to satisfactorily align water policies with agricultural legislation. The powerful upstream state is therefore to be located somewhere in between the two poles of assessing a common good, yet closer to an absolute rather than a relative assessment.

Power and Cooperation: Important Problem-Solving Factors within the Danube River Basin

When considering the constellation of actors along international watercourses, the focus can be put on aspects located at the riparian level. Worth mentioning are domestic political considerations (Baker and Jehlička, 1998: 8-9; Elhance, 2000: 210; Hicks, 2005: 217-219; Kalbhenn, 2009: 6-7), the riparian's economic development (Bernauer, 1997: 172-174; Gille, 2007: 4-6), the degree of cultural similarities among countries sharing a river (Dinar, 2008: 33), as well as their respective agricultural development (for Romania see Gabanyi, 2003; Verdery, 2003). As shown above, these factors play a significant role in defining the nature, conduct and outcome of hydro-politics in transboundary catchments. However, and following up on Schmeier (2013: 35-40), this chapter focuses on three basin level variables: game structure, power distribution, and regional cooperation. This compact overview of upstream-downstream constellations allows an assessment of their relevance for international cooperation on the collective action problem of cross-border nutrient pollution in the DRB. Obviously, the basin level assessment is to some extent also dependent on factors concerning the single riparian states. The analysis therefore integrates relevant riparian level elements as well.

The previous analysis of the DRB's problem structure laid the foundation for discussing the constellation of actors along the river. This situation-related chapter reveals that despite own national interests in exploiting the Danube there is a reliable level of collaboration and coordination among riparians. Moreover, the distribution of 'traditional' power is less relevant than area-specific 'soft' powers. This enables also less developed countries to participate in policy making. Additionally, the administrative framework of the European Union acts as a key factor for levelling power asymmetries within the DRB. This appears highly beneficial for regional integration of the various Danube states. Collective action problems such as transboundary nutrient pollution can hence be managed more comprehensively.

Game structure

The first variable to explain river basin governance effectiveness is the underlying game structure**,** or strategic situation, in which riparian states interact. Generally, the degree of

cooperation depends on the constellation of actors within international regimes such as river basins. This situation structuralism can be divided into four ideal types of cooperation problems, "[e]ach (…) uniquely challang[ing] states considering cooperation" (Martin, 1992: 766): collaboration, coordination, suasion, and assurance (see also Hasenclever et al., 1996: 187-189). Regarding their individual prospects for successful cooperation, suasion structures are least, and assurance structures are most effectiveness-conducive. Collaboration structures are slightly less problematic than suasion games, though still less conducive than coordination structures (Schmeier, 2013: 35-36).

The main problem of *suasion games* is that they have a single equilibrium outcome. "[E]iner der Akteure [hat] die dominante Strategie, nicht zu kooperieren, und erreicht mit dieser Strategie ein Ergebnis, das ihn gegenüber den Konfliktpartnern deutlich begünstigt" (Zürn, 1992: 210). Under these highly adverse conditions, as Hasenclever et al. (1996: 188-189) argue, "[u]nrequited cooperation is the only stable outcome of the game". This induces the dissatisfied actor to either make threats (decreasing the utility of defection) or promises (increasing the utility of cooperation). Projected onto international watercourses, suasion game structures are found "in situations in which one riparian exploits the river and its resources in a unilateral way that is beneficial to this riparian (…) but causes costs to all other riparians in the watercourse" (Schmeier, 2013: 35). An example is found in an extremely polluting upstream country rendering waters utterly unusable for all countries further downstream.

Indeed, much of the pollutants in the Danube come from up- and midstream countries. Yet, as shown above, none of these states pursues a dominant strategy not to cooperate on tackling nutrient pollution. Rather, policies such as the EU WFD or the Danube Convention oblige and motivate both EU and non-EU riparians to take concrete measures. Regarding the most powerful and upstream country of Germany, strict rules as set for instance in the Fertiliser Ordinance are effective. First improvements in the agriculture sector led to an overall downward trend of nutrient emissions.

In *collaboration games* (e.g. the Prisoner's Dilemma), "actors (…) impose in the pursuit of their own private gains (…) costs on each other independently of each other's action" (Snidal, 1985: 926-927). In a river basin, this would mean that "in the pursuit of its national interest State A makes State B worse off regardless of what the latter does, and vice versa" (ibid.: 927). In consequence, suboptimal collective outcomes result from this unilateral be-

haviour. To promote cooperation, "mechanisms (…) must focus on *maintenance* of agreements" through which "solutions to collaboration problems will be centralized, creating a significant role for formal organizations" (Martin, 1992: 770; italics in original).

As seen above, "every riparian state has own national interests which are tried to be enforced within a commission such as the ICPDR" (Jekel, 2021). Regarding export-oriented Germany, for example, a high production rate is considered a major interest. This level of production goes far beyond the one needed to satisfy domestic demands. In agriculture, this almost inevitably leads to negative environmental externalities such as water pollution. An interviewee pointed out: "Initially, these issues were underestimated. For a long time, traditional policy in Europe and elsewhere prioritised a mere economic profitability for which we now pay a high price, at least as far as the environment is concerned" (Grambow, 2021). Due to the gravimetric nature of water, upstream pollutants affect the water quality in middle and lower parts of the Danube.[26] Germany's national (economic) interests hence impose to certain degrees costs on countries further downstream. For example, riparians affected by upstream pollution run the risk of failing country-specific WFD objectives which may result in compliance fines.[27] To avoid that Germany makes Romania worse off regarding water quality, cooperation mechanisms were established. Article 12 WFD, for example, addresses issues affecting a downstream country's water management which, however, cannot be resolved by that Member State. And the Danube Convention emphasises the 'polluter pays' principle and the precautionary principle as "basis for all measures aiming at the protection of the Danube River" (Art. 2.4). These measures "shall ensure (…) to prevent, control and reduce transboundary impact" (Art. 5.1 Danube Convention).[28] After all, the ICPDR as the

[26] Interestingly, interviewees had slightly different perceptions of pollution coming from upstream Germany and its effects on the river's lower stretches. Some interviewees, among others governmental and non-governmental representatives from Romania, acknowledged that "Germany transfers a lot downward" (Arzet, 2021; Ionescu, 2021), while some see Germany "rather not as one of the major polluters" (Jekel, 2021; Melchner, 2021). Still others argue that German inputs are in fact high. Yet due to dilution with water from clean tributaries, the actual effects are negligible already shortly after the German-Austrian border (Brandner, 2021; Grambow, 2021; Kovacs, 2021).

[27] Article 12 WFD (European Commission, 2000a), nevertheless, addresses such issues which have an impact on the management of a downstream country's waters but cannot be resolved by that Member State. The affected riparian "may report the issue to the Commission and any other Member State concerned and may make recommendations for the resolution of it".

[28] On the question of whether these principles are applied in the DRB, interviewees uttered some doubts. As a Romanian water resources management official put it, "the 'polluter pays' principle has never been applied to the river basin in general. If at all, then solely to the national level". And a non-governmental freshwater manager from WWF Romania reasoned that "they are only to some extent applied, at least it is considered in national legislation" (Ionescu, 2021). "Due to the complexity of problems and the human idleness, their implementation is in fact quite difficult. The precautionary principle is carried around like a monstrance but is left standing in the competition with other societal necessities" (Arzet, 2021).

Danube's river basin organisation was mandated to provide for such a collaborative structure which puts paid to exploitation at the cost of co-riparians. All interviewees confirmed that the ICPDR as the negotiation platform contributes considerably to a collaborative and cooperative spirit regarding the tackling of transborder nutrient pollution. "If there was no ICPDR, downstream countries would fight a losing battle concerning national and river basin issues" (Arzet, 2021).

Relatively conducive for successful cooperation within international regimes are *coordination games*. As outlined by Hasenclever et al. (1996: 188), "[t]his game has two possible equilibrium outcomes, one of which is preferred by each of the players". Since "neither player has an incentive to defect" from the equilibrium, and "the cooperative solution (…) once found (…) is self-enforcing, (…) coordination regimes can largely do without compliance mechanisms" (ibid.). Being more often prevalent in international lakes than in river basins, this game structure provides "strong incentives for cooperative water resources governance" (Schmeier, 2013: 36).

Each Danube riparian is to some extent defecting from the joint objective of basin-wide clean waters. The pursuit of own national interests often results in negative environmental externalities. However, all states constantly renew their commitment to the shared objective, e.g. through their willingness to implement local activities required by the DRBMP Joint Programme of Measures. Moreover, the JDS are perceived as "harmonisation events" (Arzet, 2021) and "identification events" (Jekel, 2021) which foster cooperation among all Danube countries. Coordinated by the ICPDR as the "role model river basin organisation characterised by a cooperative spirit" (Arzet, 2021), it is thus expected that self-enforcing cooperative solutions are easily to be found. Yet partly owing to prioritisation differences between agriculture and water management, considerable gaps between claims and actions exist in the DRB. This was emphasised by a Romanian government official with many years of experience in governing the basin. The chapter on conflicts about means and values is addressing this issue. A Bavarian water management administration representative summarised the trade-off between own national interests and commitments to a greater good: "Recognising the issue does not automatically mean that consequences follow on spot" (Arzet, 2021). International cooperation on collective action problems such as nutrient pollution requires a holistic approach. Not only does this involve the single country and their pledges to implement measures. It also demands the integration of all relevant socio-economic actors, i.e. industry, agriculture, environment and citizens (ibid.; Kovacs, 2021). From a Bavarian point

of view, foundations for a common agenda and successful coordination of measures are laid: "We recognise that good cooperation along the Danube is in our collective interest. We highly appreciate our colleagues and we thus considerably benefit from each other's knowledge and perspectives" (Grambow, 2021).

The fourth ideal type of cooperation problems is referred to as *assurance games*. Here, "the sole preferred outcome is mutual cooperation" (Martin, 1992: 780). The willingness to cooperate is shared by all parties, only joint strategies need to be agreed upon. The reason why the highly effectiveness-conducive assurance game is nevertheless considered posing a potential cooperation problem lies in two possible scenarios: first, "at least one actor erroneously fears that the other's preference ordering is similar to a Prisoner's Dilemma game and, thus, will defect rather than cooperate" (Hasenclever et al., 1996: 188). And second, "at least one actor doubts that the other can be trusted to act rationally on the given issue" (ibid.). Especially when security considerations are at stake, "it is not unreasonable for actors to play it safe and opt for defection" (ibid.). However, as cheating and defecting in a setting of cooperative spirit is both highly unlikely and unreasonable, "institutions have little role to play in assurance games; states will therefore not waste resources to construct them" (Martin, 1992: 780).

Though corresponding to most features of this game type, the DRB is not wholly based on assurance structures. The most obvious reason is that the ICPDR as governing river basin organisation had to be established. It not only manages and supervises the implementation of measures to comply with legal requirements. It is also the central body for balancing national interests among riparians. As outlined above, the willingness to cooperate on nutrient pollution is nevertheless shared by all parties. The absence of value conflicts clearly facilitates cooperation, but implementing joint strategies is more challenging ('conflict about means'). Some countries, partly driven by national security considerations, prefer to invest in sectors with immediate prospects for rapid growth rather than in water protection measures. By doing this, they—often unintentionally—cause harm to others further downstream. Hence, they defect from cooperation on clean waters. This irrational behaviour regarding pollution reduction may lead other Danube countries to mistrust. Exactly at this point, the spirit of assurance is about to vanish. Negotiation and coordination platforms such as the ICPDR are called into action. By "proactively working on fighting pollution" (Brandner, 2021), this organisation is regarded as absolutely crucial for the well-being of downstream states (Arzet, 2021).

Power distribution

River basins often consist of more than one riparian state. This makes power distribution a key situation structure variable for the effectiveness of organised watercourses dealing with collective action problems. According to the riparians' geographical location, a most basic distinction can be drawn between upstream and downstream countries. Additionally, their respective power resources are to be considered when assessing the distribution of power within such international regimes (Dinar, 2008: 19-20; LeMarquand, 1976: 887-888; Tir and Ackerman, 2009: 627). Depending on the location of a powerful riparian, the nature of conflict about certain issue areas is determined accordingly: assumed by realists, upstream states are reluctant to cooperate if they perceive no incentives to do so. Downstream riparians, on the other hand, are highly in favour of cooperation and joint governance since they depend on the upstream states' use and protection of the river (Dinar, 2009b; Tir and Ackerman, 2009: 627 and 635-636). However, this geographically determined power disparity can be turned upside down if the downstream riparian is the economically and politically most powerful state in the basin. This may have considerable effects on cooperation in the catchment (Elhance, 1999: 81). Inferring from that, "cooperation and the formation of international regimes depend on hegemony and its persistence" (Lowi, 1993: 5). The interest of the river's hegemon is thus considered a prerequisite for cooperation. Summarised by Bernauer and Kalbhenn (2010: 5808), the realist view on cooperation within a regime of hydro-hegemony is that "cooperation is more likely when the downstream country is the hegemon and less likely if the upstream country is the strongest riparian".

This perception, though, is dominated by the understanding of power in 'traditional', that is in military and economic terms. It suggests that an "upstream-downstream setting entices the upstream country to exploit its positional power and discriminate against downstream neighbors" (ibid.: 5803). Challenging this assessment by analysing various hydro-political areas, Dinar (2009b: 330) argues that "issue-specific power in asymmetric contexts highlights how otherwise weaker parties are able to extract concessions from more powerful states" (see also Thorhallsson and Wivel, 2006: 658). This bears the opportunity for cooperation which, however, is only successful in the long run if none of the states involved is extremely malign. Nonetheless, hegemonic upstream countries seem to decrease the likelihood for cooperation as their "geographical location provides them access to the benefits of water resources use without suffering from negative consequences" (Schmeier, 2013: 36). Hence, there are no obvious reasons for upstream hegemons to cease using the river for, e.g.,

pollution-intrusion purposes. A constellation of actors with the most powerful state being located upstream is thus expected to make effective cooperation on collective action problems unlikely.

Spatially, the uppermost country in the basin is Germany. The Danube states Romania, Bulgaria, Moldova and Ukraine are located most downstream, with major parts of the Delta being in Romania. This already constitutes a mere geographic power distribution. Germany, for example, could use its upstream position to regulate amounts of water flowing downstream, whereas Romania due to its access to the Black Sea is at a crucial position for navigation and trade. Regarding transboundary water pollution with Romania at the receiving ends, the effectiveness to resolve this issue does, however, not only depend on the actual location. Rather, the respective political and economic power of Danube states must be included in the assessment as well. In international catchments, as Tir and Ackerman (2009: 627) argue, power may be used to satisfy own national interests:

> Powerful states have the capacity to extract concessions from weaker countries (…). [A] preponderant state (…) can force a weaker state into signing a treaty that would allocate most of the benefits to the powerful state. The relative power distribution is thus preserved, or even enhanced in favor of the powerful state.

In terms of socio-economic development, Germany outweighs Romania by far—at least if expressed in Gross Domestic Product (GDP), military power, or population size.

Since the behaviour of states within international regimes is usually determined by their relative degree of power or weakness, a classification of states appears necessary. This will shed light on the underlying power dynamic between Germany and Romania as outermost Danube riparians. A first approach is to separate the two countries according to their (political) size. Keohane (1969: 296) suggests four types of states: "great", "secondary", "middle", and "small" powers. A 'secondary' power or state[29] is considered "that alone it can exercise some impact, although never in itself decisive, on that system" (ibid.). 'Small' powers or states, instead, are expected to "never, acting alone or in a small group, make a significant impact on the system" (ibid.). Similarly, and referring to the EU, Thorhallsson (2000: 1-7) assigns Germany to the "larger states" (comparable to 'secondary' powers) and Romania to the "small states" (comparable to 'small' powers).[30] However, this distinction is somewhat

[29] According to Katz (2018: 124), there are five "current global great powers": the United States, China, India, Russia, and Europe. From a global perspective, Germany therefore does not count to the category of great powers, but rather to the one of 'secondary' powers.

[30] Taking only Europe and the DRB, Germany is regarded as 'great power' (Katz, 2018: 129) which "can, alone, exercise a large, perhaps decisive, impact on the international system" (Keohane, 1969: 296).

short-sighted, especially when trying to draw a borderline between 'small states', 'middle powers' and 'micro states' (Neumann and Gstöhl, 2004: 6). Consequently, as Thorhallsson and Wivel (2006: 653) point out in the context of the EU, it is "not always clear-cut (…) whether an EU member state is 'big' or 'small'". To avoid an arbitrary classification of states, definitions going beyond traditional capability constituents such as GDP, population size or military expenditure are required. These parameters "tell us little of a state's ability to influence the environmental policy of the EU" (ibid.: 654). The authors therefore suggest a relational definition of small states which shifts the focus from the power that states possess to the actual influence they exercise (ibid.: 655). Accordingly, Knudsen (1996: 5) stresses that the term 'small state' may further be used, yet "[i]t is not the size of the unit, but the kind of relationship that is of interest here". The focus shall moreover be put on "the experience of power disparity and the manner of coping with it" (ibid.).

Romania is indeed in an overall weaker position than Germany regarding traditional power variables. That was articulated in many interviews, both from the German and the Romanian side. Nevertheless, the downstream state might still be more powerful in certain issue areas. Fishing or control over navigation access to the Black Sea, for example, "endows [Romania] with at least some bargaining leverage" (Tir and Ackerman, 2009: 635-636) for other areas such as access to upstream markets. This mutual dependency was also emphasised by a German interviewee who argued that a sound and well-prepared downstream water ecosystem is essential when it comes, for instance, to fish migration (Brandner, 2021). Overall, "[w]ether a state should be considered small may depend not only on its material resources, but also on its 'soft power'" (Thorhallsson and Wivel, 2006: 664).

Opposite to the above assumption for 'small' powers, Romania is thus not doomed to only play an inferior role against powerful upstream Germany. It rather takes an active role in policy making within the DRB. "The power to be able to change the system in a positive manner within the catchment is determined by the quality of country representatives in the ICPDR[31], the country's political will, as well as its visions and ideas" (Grambow, 2021). This power, as the Bavarian Director General for Water Management went on to explain, is "independent of the size of the riparian states" (ibid.). The German Head of Delegation to the ICPDR confirmed this assessment: "The times of German supremacy in the basin are

[31] Highlighted by the chair of the ICPDR's River Basin Management Expert Group, many small Danube riparians are represented by long-standing experts who contribute considerably to effective collaboration within the Commission (Korck, 2021).

definitely over. As EU Member States, downstream riparians have their own standing" (Jekel, 2021). As far as power asymmetries and hierarchies along the watercourse are concerned, a Romanian senior delegate to the ICPDR determined:

> As an EU Member State, we have the same rights and duties as Germany. Even though we are a small country that was accessing the EU, I would not say that we have ever been exploited by Germany. This is particularly true for the DRB and the ICPDR.

Regarding the overall effectiveness of the basin to deal with nutrient pollution as a collective action problem, the most powerful country—the 'hegemon'—is located most upstream. It is therefore assumed that Germany's verve to reduce pollutant influxes is not as strong as the desire for downstream riparians is. Nevertheless, the country substantially determines the degree to which cooperation on nutrient pollution reduction is effective. Even if the relatively small and weak downstream riparians relentlessly pushed for cooperation, Germany would still be at the controls—at least geographically. A representative from WWF[32] Romania hence stated that "in general, power is a driver of issues such as pollution. Those in power likely influence certain decisions to their own advantage. Power is important in this context" (Ionescu, 2021). Overall, "whenever there is a basin-wide issue, you can count on a strong opinion from Germany" (Kovacs, 2021).

Contrary to the expectation of being a malign upstream hegemon defecting from cooperation, Germany is highly engaged in the ICPDR. This was confirmed by all interviewees. Cooperation on pollution reduction seems to be pushed from upstream at least as much as it is demanded from downstream. In fact, cooperation with Germany encourages less developed countries to also establish well-equipped administrations to contribute to the common goal of clean Danube waters (Korck, 2021). Several respondents indicated that difficulties in eliminating cross-border water pollution altogether are ultimately not as much a matter of unfair inter-riparian power struggles as expected. Rather, the discrepancy between upstream and downstream countries in terms of economic and financial development influences the overall affordability and implementation of adequate measures. This was stressed by a Romanian government official and Arzet (2021). Comparing Germany and Romania, financial and political priorities are set differently regarding water management and economic growth. The high socio-economic status of Germany facilitates higher water protection standards and capacity building to effectively tackle nutrient pollution upstream. Importantly, Germany is

[32] Acronym for "World Wide Fund for Nature".

not proactively exploiting its powers to use the river's resources for its own benefits regardless of the consequences this would entail for downstream riparians.[33] Apart from appreciating Germany's cooperation-conducive role, a senior water management representative from Romania also acknowledged precisely these prevailing socio-economic disparities within the DRB: "We will probably not be able to implement stricter standards than Germany". Germany can thus be classified as benign upstream country with genuine interests to reduce pollution along the entire river.

Regional cooperation

Even though upstream-downstream-related power asymmetries might impose major obstacles for cooperation in certain issue areas, a high level of regional integration in a river basin can compensate for this geographic dilemma. Generally, political relations among states within international regimes can range from militarised conflict or war to cooperation or even to strong regional and supranational institutions. The overall relationship between riparians, be it friendship or hostility, undoubtedly determines the actors' effectiveness and willingness to deal with joint issues. This applies particularly to interest-driven negotiations about shared rivers. "[T]he friendlier the relationship, the less likely either side is to make extravagant demands that entail grave losses for the other, so cooperation should be easier because the two sides' initial demands should be relatively closer" (Brochmann and Hensel, 2011: 866). Especially when discussing the relationship between larger and smaller states, "the existence of multilateral frameworks of security co-operation (…) might be able to stabilise power disparities" (Knudsen, 1996: 15). This positively influences "the prospects for preserving the autonomy of the smaller state" (ibid.: 9). International or supranational institutions such as the United Nations (UN), the European Union or the NATO (North Atlantic Treaty Organization) already integrate countries under shared and agreed upon frameworks. This makes cooperation in issue areas such as international river basins more likely: "Countries which cooperate in general cooperate about water; countries which dispute in general, dispute over water" (Wolf et al., 2003: 43).

Regarding the DRB and its riparians, both members and non-members of the EU expressed their commitment to the Union's water policies, first and foremost to the WFD (ICPDR,

[33] "Germany has never articulated special interests in exploiting the Danube for wastewater discharge purposes", as Arzet (2021) pointed out. "But the Danube is nevertheless used by Germany as a medium to get rid of its wastewaters. In non-circular and highly productive economies, this is inevitably in the end" (ibid.).

2001: 10). Almost all relevant Danube countries are located within the EU's realm, and the requirements for managing the basin are mainly geared to the Union's highly ambitious provisions. Therefore, the unique core-periphery design of the European Union will be outlined now. A special focus is thereby put on the integrative capacities it possesses to re-allocate powers between small and large states. This methodological approach avails itself of the above power distribution analysis. Moreover, it synthesises findings to further understand the integration process within the DRB.

For the EU, regional integration and cooperation—particularly in economic terms—have ever been cornerstones of uniting highly varying regions. Yet as Mattli (1999: 37) states, "the implications of regional integration go beyond trade in goods, services, and factors". They even "entail the imposition of some common rules of conduct for participating countries and a set of reciprocal commitments and obligations" (ibid.). Apart from equally distributed duties and rights for Member States, the institutional framework of the EU "provides ample room for issue-linkages, considered as highly important for water resources governance" (Schmeier, 2013: 78). Such issue areas, e.g. the Internal Market, the EU Common Agricultural Policy (CAP), interregional cooperation, as well as environmental politics, demand cooperation among Member States. Moreover, institutionalised regional (economic) integration also allows small states the opportunity "to obtain benefits that are usually available only to large countries" (Thorhallsson and Wivel, 2006: 655). Nonetheless, European integration also bears some disadvantages for small states. Becoming evident primarily through the interplay of large and small states, "[t]he greatest challenge to small states in an enlarged Union is the continued pressure large states exert to change the EU institutional structure in their favour" (ibid.: 658). This could lead to a political environment where large states, which may find themselves ever more marginalised in an enlarged Union, "will increasingly negotiate the big issues outside the formal institutional procedures" (ibid.).

Obviously, odds for large states are better than for small states to influence both the integration process and the Union's decision making. The EU as a regional, supranational institution, however, is particularly conducive to equal participation. Besides specific institutional design features such as the veto power, the EU's unique core-periphery structure is also favourable to small European states. Some may see the Union as "instrument of secondary and minor states trying to balance the dominant state[s] by institutional means" (Pedersen, 2002: 684). Yet, its centre—the 'Franco-German coalition'—is characterised as "benign uni-

polarity" (Kupchan, 1998: 42-43). Fundamental to this hierarchical structure is the "preponderant geographic core" which "establishes a hub-spoke pattern of influence over a weaker periphery" (ibid.: 42). This allows a regional order to emerge "from consensual bargain between core and periphery, not from coercion" (ibid.). Consequently, the willingness of periphery countries to enter the core's zone of influence through EU accession grows. "[T]he core", as Kupchan (1998: 43) summarises, "exerts a powerful magnetic attraction over the periphery, creating an effective hub-spoke pattern of governance". Essential also to the DRB, the Franco-German core "engages in self-restraint and agrees to subject the exercise of its preponderant power to a set of rules and norms arrived at through multilateral negotiation" (ibid.: 42). By applying this kind of "power-sharing *vis-à-vis* smaller states" in the EU, long-term benefits regarding peace, stability and successful cooperation between states are intended by the region's great powers (Pedersen, 2002: 684; italics in original). Regional integration has thus been made possible primarily by the EU core countries' decision to subordinate some of their own strategic interests to a more balanced distribution of powers within the region. That is why Germany can be classified as a 'co-operative hegemon'[34]. Its genuine interest in a functioning regional structure is best expressed by its commitment to long-term regionalist policy strategies in various issue areas (ibid.: 683-695).

In line with this theory-based inference, several interviewees confirmed the importance of Germany as powerful yet benign upstream hegemon in the DRB. They also pointed out that regional integration through EU accession and the existence of the ICPDR had considerable positive impacts on cooperation-effectiveness among Danube riparians. Remarkably, also non-EU states appreciate this common institutionalised framework. According to an interviewee, they perceive the ICPDR as an "identification and motivation tool to collaborate with EU members" (Jekel, 2021). The integrative role of EU accession was emphasised by a Romanian water management official: "Only after 2004 and 2007, many eastern ICPDR countries considered environmental issues much, much more". Romania's EU accession and the application of the EU CAP "changed the country's attitude towards water protection and nutrient pollution in a positive way" (Ionescu, 2021). However, profound cooperation among the Danube states already started with the entry into force of the Danube Convention in 1994.

[34] As Pedersen (2002: 693) states, the strategy of co-operative hegemony is most likely to be adopted by "major powers, which possess great strength in terms of 'soft power'. Such powers are likely to be weak on military capability but strong in one or more of the areas of economics, technology, institution building, culture and ideology". This characterisation fits well with Germany. It substantiates the country's attitude towards co-operative hegemony within the EU and, consequently, also in the DRB.

Precisely these mutual political and diplomatic experiences gained in the field of water management facilitated Romania's pre-accession process. As the Head and Director General of the Bavarian Water Management and Soil Conservation Department accentuated:

> We have always sincerely advocated good quality of international water bodies during enlargement rounds, also in the DRB. We have even supported CEECs[35] through Twinning projects[36] and other forms of cooperation to build up water management infrastructure. (…) It has ever been a fruitful cooperation and an exchange of knowledge. (Grambow, 2021)

Especially in terms of transboundary nutrient pollution, regional integration in the basin is thus considered of "high psychological value for all Danube states" (Jekel, 2021). These findings support the assumption made by Schmeier (2013: 113): river basins are governed more effectively if both a benign upstream hegemon, a high level of cooperation of riparian states on issues other than water as well, and a high level of regional integration exist.

The EU Water Framework Directive: Addressing Problems and Integrating Actors along the Danube

Besides the two exogenous variables (structure of the problem and constellation of actors), this thesis discusses the legislative design within the DRB as key endogenous determinant for effective basin governance. Large parts of the Danube catchment are within the EU's realm. The EU WFD[37] therefore considerably influences actions and behaviour of Danube riparians. Apart from this major EU water policy, the DRB's own legislation, the 1994 Danube Convention, "forms the overall legal instrument for co-operation on transboundary water management in the Danube River Basin" (ICPDR, 2021f). Both water laws are based on two UN Conventions, the 1992 UNECE Water Convention (UNECE, 1992) and the 1997 UN Watercourses Convention (United Nations, 2014). Even though they "largely cover the same

---

35 Acronym for "Central and Eastern European Countries".

36 The Twinning programme was part of the technical assistance during the EU's pre-accession strategy. It "brings together administrations of a Beneficiary Country (…) with a Member State (…) in order to develop their institutional capacity" in terms of "developing the structures and systems, human resources and management skills needed to become EU Member State" (European Commission, 2006: 3). The single projects "are set up as instruments for targeted administrative co-operation" (ibid.). Between 1998 and 2005, 16 of the total 179 Twinning projects helped Romania to establish necessary infrastructure and "to build long-term relationships" with Member States such as Germany (ibid.: 3 and 9).

37 Until the 1990s, European law only tackled individual water issues. Due to this "fragmented" nature of Union water policy "in terms both of objectives and of means", pressure increased on policy makers to establish "a more global approach to water policy" (European Commission, 2021a). In 1995, the Commission came forward with a proposal of a single piece of framework legislation—the future Water Framework Directive—to resolve the problems identified. Entered into force in 2000, the WFD as part of EU secondary legislation is bound to the provisions and principles set up in the Union's environmental clause (European Commission, 2012: Art. 191 TFEU, ex 174 TEC).

subjects", the principles of today's water law "find their clearest legal expression in the UN Watercourses Convention" (Baranyai, 2020: 33). These principles which particularly respect issues of transboundary concern are also covered by the ICPDR (Schmeier, 2013: 87).

The focus of this chapter is put on the WFD as it comprehensively and accurately addresses problems and integrates actors within the Danube basin. In 2000, the ICPDR was nominated by its 14 contracting parties as "the platform for the implementation of all transboundary aspects of the EU Water Framework Directive" (ICPDR, 2021a). All contracting parties to the Danube Convention "agreed that implementation of the EU WFD was the ICPDR's highest priority" (Shepherd, 2014: 10). The Directive furthermore commits itself to contribute to the implementation of the above UN Conventions (European Commission, 2000a: Preamble 35 WFD).

Interviewees from all four groups assessed the Directive as a decisive tool for tackling cross-border nutrient pollution sustainably in the DRB. The policy considers the entire range of measures relevant to manage international watercourses. As it also explicitly promotes international cooperation, the WFD is seen as one of the best water laws worldwide. Yet as is the case with many politically enacted laws, also this important European water policy has its blind spots.

Addressing the problem of transboundary nutrient pollution

Fundamentally, the WFD is to comply with environmental principles set out in EU primary law: the principle of precaution and preventive action, the principle that environmental damage should as a priority be rectified at source, and the principle that the polluter should pay (European Commission, 2012: Art. 191 TFEU[38], ex Art. 174 TEC[39]). As far as the type of problem (transboundary nutrient pollution) is concerned, the WFD explicitly focuses on "achieving good ecological potential and good surface water chemical status" for all water bodies in the basin (Art. 4.1[40]). To reach the goal of "progressive reduction of emissions (…) to water" (Preamble 22), the policy sets up concrete strategies against water pollution (Art. 16). Regarding agricultural pollution caused by excess P and N, these strategies involve measures set out in the 1991 Nitrates Directive (European Council, 1991: Annex VI).

38 Acronym for "Treaty on the Functioning of the European Union".

39 Acronym for "Treaty Establishing the European Community".

40 Unless stated otherwise, all references in this chapter refer to the EU WFD (European Commission, 2000a).

The fact that the Danube countries nominated the ICPDR as platform for implementing the WFD shows that "[t]he successful implementation of the WFD is (…) clearly high on the political agendas of the countries of the Danube River Basin District" (ICPDR, 2021a). The achievement of the WFD's core objective—reaching a good water quality for the Danube—is at high politics for all riparians across the catchment. Required by the Directive, they commit themselves to manage the problem of transboundary water pollution collectively along a Joint Programm of Measures (Art. 11) and Management Plans[41] (Art. 13). Hence, Danube states not only agree about the value of water protection. The WFD also even tries to integrate basin-wide management procedures to settle conflicts about how to reach the Directive's targets ('conflict about means'). The policy's Preamble (para. 23) emphasises that "[c]ommon principles are needed in order to (…) contribute to the control of transboundary water problems". Thereby, it already insists on an absolute rather than a relative assessment of the Danube's water resources and its ecological quality. This is substantiated by the Directive's commitment to legally promote and enforce a key environmental principle laid out in the EU's founding treaty: a prudent and rational utilisation of natural resources (European Commission, 2012: Art. 191 TFEU, ex Art. 174 TEC).

Thus, unilateral upstream exploitation of the Danube in terms of absolute territorial sovereignty would violate core principles of international water law. Shares of taking advantage of the river for pollution purposes are nevertheless often unequally distributed among upstream and downstream countries. To avoid such conditions, the Commission "has indicated that it will first address the upstream countries when it comes to upholding the water directives" (van Rijswick, 2008: 54). This confirms the importance to assess the shared watercourse absolutely and to respect downstream interests just as much as those of upstream riparians. Overall, the WFD as Europe's central water legislation strongly incorporates nutrient pollution. It furthermore encourages countries in the DRB to set up effective, comprehensive, and integrative measures to combat transborder nutrient pollution. Previously "neglected cross-boundary and cross-media effects of water pollution [were] put into focus" (Lenschow, 2015: 336) in an "integrated" and "coordinated" (Preamble 9 and 35) manner. This legislative setup also strongly influenced the mindset and behaviour of German agri-

[41] The basin-wide management plan is regarded as a true driver for cooperation: "One of the key principles of the Water Framework Directive is that if you are in a transboundary river basin, you have to have a transboundary river basin management plan, and then you have to cooperate" (Kovacs, 2021).

culture. A Bavarian agriculture management administration official acknowledged that "especially since the WFD and the Nitrates Directive, the farmers' sensitivity to water protection has been growing" (Melchner, 2021).

Integrating the variety of actors within the DRB

Besides addressing the problem structure in the DRB, the WFD also explicitly takes the constellation of Danube countries into account. A remarkable feature of the Directive is that it recognises river basins as "ecological, hydrological and hydrogeological" units (Preamble 33). This hydro-political integration of riparians facilitates water management and the implementation of measures.[42] From the very day of coming into effect, the WFD thus tried to prevent the emergence of a suasion game structure among riparians. Instead, the policy calls for collaboration on measures and management plans regarding the fulfilment of its objectives. Successful joint activities result from this approach: major water quality surveys (especially the JDS), collaboration under the TransNational Monitoring Network (TNMN) on water pollution (ICPDR, 2021g), the establishment of comprehensive basin-wide management plans, or the introduction of MONERIS as nutrient modelling application. And ongoing projects under the EU-funded Danube Transnational Programme such as IDES[43] (Danube Transnational Programme, 2021) try to bridge the gap between agricultural practices and diffuse nutrient pollution. Some scholars argue that this integrative approach requires states to give up parts of their sovereignty for the sake of cooperatively improving the conditions of the whole basin. In spirit of the European integration promoted by the European Commission, the WFD thus "represents an important step toward a type of post-sovereign environmental governance" (Johnson, 2012: 85). Yet at the same time, it still considers the importance of the individual Member States on water policy (Grambow, 2021).

Characteristic for EU policies, the WFD is treating each Member State in the Danube on equal footing. Even non-EU countries are considered by the WFD. That is why both EU and non-EU riparians expressed their commitment to this crucial water law (ICPDR, 2001: 10). The same obligations and rights are effective for all countries, regardless of being located upstream or downstream. Hence, the distribution of classical power parameters and the existence of political hierarchies along the Danube are rendered irrelevant—at least as far as

[42] However, even before the WFD became effective for the DRB, the 1994 Danube Convention could have already integrated all relevant Danube countries under a shared legal framework.

[43] Acronym for "Improving water quality in the Danube river and its tributaries by integrative floodplain management based on Ecosystem Services".

law compliance is concerned. Power imbalances may nevertheless influence the willingness to cooperate on achieving basin-wide clean waters. Hegemonic upstream states could exploit their power against weaker downstream countries by discharging high amounts of nutrients into the shared river. This might pose major concerns for downstream countries in terms of fulfilling relevant water quality requirements. Therefore, the WFD includes an essential rule that is also found in other international water laws such as the UN Conventions:

> Where a Member State identifies an issue which has an impact on the management of its water but cannot be resolved by that Member State, it may report the issue to the Commission and any other Member State concerned and may make recommendation for the solution of it. (Art. 12 WFD)

This legal setup does not only show that the WFD is an "absolutely fantastic, well-substantiated policy" (Grambow, 2021). By "providing room for a new level of multilateral cooperation" (Jekel, 2021), the policy is even capable of integrating and protecting countries within river basins. Particularly in the early 2000s, the knowledge exchange and catching up with this EU legislation was "the real added value for the Danube basin", as Kovacs (2021) put it. He went on by emphasising that "when we started to implement the WFD, everyone was learning from the Danube case. Working together facilitated the national implementation of the WFD".

Room for improvement for an almost perfect legislation

Despite these manifold benefits the WFD brings to the states sharing the Danube basin, the Directive is not completely flawless. A major objection is that it provides too little time to entirely solve a problem such as nutrient pollution within a period of 15 years.[44] As Müller-Grabherr et al. (2014: 243) argue, the Directive falls short considering "the complexity of ecosystems or the interactions and trade-offs at different scales from sites to small catchment and up to the entire river basins". Some criticism is targeted on the fundamental "mismatch between the legal expectations of the Directive and the ecological timeframes required to facilitate an achievement of good ecological status" (Voulvoulis et al., 2017: 363). Josefsson (2012: 55) followed that "[t]he Directive, constructed on a flawed understanding of ecological time, gives EU Member states an insufficient timeframe for rehabilitating what will probably require decades or, more probably, centuries". This assessment of the WFD was confirmed by many interviewees and the ICPDR itself (ICPDR, 2015c: 117). As both the

[44] All objectives of the WFD were meant to be fulfilled until 2015. However, since many states are severely struggling to comply with all requirements, transitional periods until 2027 the latest were granted.

German Head of Delegation to the ICPDR and a senior ICPDR delegate from Romania pointed out, several reasons contribute to a general failure of Member States to meet the Directive's goals by 2027: "There is not enough time, money and staff, many water bodies are multiply polluted, and the ecological system does often not react to measures as intended" (Jekel, 2021). And a Romanian delegate to the ICPDR stated that "Romania struggles to afford the high investments needed". Interviewees also criticised the deployment of the 'one-out, all-out rule' regarding hazardous substances. This makes it difficult for Member States to entirely comply with the Directive's objectives within the foreseen timeframe (Brandner, 2021; Kovacs, 2021).

A second point of criticism concerns the effective and joint management throughout the basin. Though being instructed to actively cooperate, Member States are only obliged by the WFD to produce national action plans covering "those parts of the international river basin district falling within their territory" (Art. 13.2). The pressure of every single Member State to comply with the policy's objectives increases the risk that national measures for the implementation of the WFD will not harmonise adequately with the whole basin. The mere focus on domestic actions may thus be harmful for basin-wide cooperation. This, as Keessen et al. (2008: 41) infer, could particularly affect downstream Member States who "run the risk of the upstream Member States taking inadequate measures". Hence, riparians at the lower end of a river "will be faced with water which is so polluted that they are unable to achieve the WFD objectives downstream" (ibid.). Fortunately, the DRB is based on a convention that tries to prevent such incidents with transboundary impact (ICPDR, 1994: Art. 5 Danube Convention).

Overall, and notwithstanding these shortages, the WFD is seen as "groundbreaking policy" (Jekel, 2021) which "obliges Member States to equitably treat the common good water" (Brandner, 2021). In fact, all Danube states had "difficulties with adapting the requirements of the WFD", as Grambow (2021) pointed out. "Prior to the Directive we were simply not as good in terms of holistic water management as we are today" (ibid.). "But now", as the Bavarian Director General for Water Management continued, "all parties to the WFD are constantly reflecting and carrying out self-checks whether objectives are achieved" (ibid.). Even in Romania, where environmental considerations were prioritised low, "EU accession and taking on the WFD's requirements considerably changed domestic water legislation, that is clear" (Ionescu, 2021). "That politics eventually adopted the Directive against osten-

sible economic interests is a miracle. It was a true moment of happiness for Europe" (Grambow, 2021). Having this solid legislative framework, its huge potential should be further expanded to approach nutrient pollution from agriculture in an even more process-integrative manner. The two relevant policies in this regard are the EU CAP and the WFD. "They have the master plans: the Strategic Plans under the CAP and the River Basin Management Plans under the WFD. They should be aligned and jointly developed in good synergy now. This is the key" (Kovacs, 2021).[45]

Romania's Accession Negotiations with the EU: Implications for Transboundary Nutrient Pollution in the Danube

In previous chapters, three key determinants for effective governance in river basins were outlined and applied to the Danube: the nature of transboundary nutrient pollution as collective action problem, the constellation of EU and non-EU riparian states, and the WFD as central legislative framework within the basin. Now, the effects of accession negotiations between Romania and the EU on the issue of cross-border nutrient pollution are analysed. The first part starts with outlining the central principle that determined Romania's entire accession process—the principle of conditionality. Then, main steps and challenges, as well as relevant pre-accession instruments on the candidate's way towards the Union are discussed. After that, the second part of this chapter checks *Hypothesis 2* in very concrete terms. Documents outlining the negotiations on the two relevant *acquis* chapters, agriculture and environment, are analysed. To reflect upon the findings from policy research, results from in-depth interviews on hydro-politics and agriculture in the DRB are integrated. In fact, barely any respondent could have provided detailed information on water quality-related negotiations between EU core and periphery states. Yet, both Romanian and German experts usually rejected the hypothesis of a deal at the expense of the Lower Danube ecosystem straightforward.

Overall, the evaluation paints a clear picture: there was a strict form of conditionality imposed on Romania, and difficulties in complying with major parts of the *acquis* required the candidate to request exceptional transitory measures which demanded compensations in return. However, no evidence was found which points to concessions Romania had to make to the more powerful Germany in terms of transboundary nutrient pollution. This substantiates

[45] For further information on how to combine water management and agriculture, see ICPDR (2021e).

the findings derived from the preceding analysis of water pollution management along the Danube.

Romania's Accession Process: From Tough Conditionality to Environmental Capacity Building

The entry of Romania to the EU can hardly be discussed without taking the full picture of eastern enlargement into account. That is why most of the literature subsumes Romania's accession under the entire process of this 'fifth enlargement round'. It involved eight CEECs who entered the Union in 2004 and two (Romania and Bulgaria) who joined in 2007. The main reason for this gap of three years lies in the different speed of aligning domestic laws with EU standards. According to the EU's enlargement policy, Romania's way to membership was characterised by three major successive and partly overlapping stages: association agreement; pre-accession alignment based on accession partnership; finally, accession negotiations. The whole process of Romania being incorporated into the Union's realm therefore started not only with the application for accession in 1995. Rather, the time before the fall of the Iron Curtain and the critical period of transition thereafter must be considered too.

The principle of conditionality

Throughout the whole process of 'Europeanization'[46], the EU exerted pressure on Romania in terms of complying with the Union's *acquis*. This so-called accession conditionality is an integral part of enlargement. And enlargement itself is regarded as "the Union's most successful foreign policy instrument" (European Commission, 2003a: 5). During eastern enlargement, the EU tried to use the peculiar circumstances that CEECs desired it more to join the Union than the Union desired their entry. This asymmetrical relation was prevalent throughout Romania's entire accession process. Strategically using the incentive of membership to "induce or preserve specific policy-changes" in candidate countries, the EU established a well-functioning accession conditionality (Sedelmeier, 2015: 425). The ultimate reward of membership was tied to certain conditions, most importantly to full compliance with the *acquis* by the date of accession. Emphasised by Inglis (2010: 113), each candidate during eastern enlargement was "treated on an equal footing". And "the increasingly precise conditionality [was] tailored with the differentiating-yet-inclusive approach" (ibid.). Besides the mere compliance with the common legislative body, accession conditionality could also

[46] Schimmelfennig and Sedelmeier (2005: 7) define "Europeanization" as a process in which states adopt EU rules.

change the incentive structure for Romania. Member States had a highly effective means to influence policy change in the candidate country (Pridham, 2005: 25-62). This again was fuelled by the mostly unilateral desire of Romania's political elite to join the Union (Grabbe, 2006: 52). Additionally, since EU incentives were "sufficiently large and credible to outweigh domestic adjustment costs", conditionality worked well with Romania (Sedelmeier, 2015: 428). As Lavenex and Schimmelfennig (2011: 898) argue, "the credible prospect of membership holds the highest promise" for candidates. To demonstrate its seriousness about enlargement, the EU opened accession negotiations with Romania in 2000. This was crucial also for the Union, as its influence strongly depended on the credibility of conditionality (Schimmelfennig and Sedelmeier, 2005: 14). Especially when it came to adjustment to the *acquis*, acquiescing to the principle of conditionality turned out to be particularly helpful for either side (Sedelmeier, 2015: 428).

Already at the very beginning of Romania's 'way towards Europe', conditionality became effective. When from late 1988 Soviet control over CEECs quickly disintegrated and communist regimes gave way within months in 1989-1990, change was encouraged in Central and Eastern Europe by the EU. The Union's joint *Ostpolitik* was supported by Gorbachev's policy shift—*glasnost* and *perestroika*—in 1986 which intended to make Soviet Communism more efficient (Emmert and Petrovi, 2014: 1374). This allowed the European Union "to establish its twin-track policy and promote political and economic reform in Eastern Europe" (Torreblanca, 2001: 29). The then Soviet leader "recognised that the time had come for the EC [European Community] and the CMEA [Council for Mutual Economic Assistance, also COMECON] to normalise their relations" (ibid.). The EU jumped at the chance and started to offer the newly independent CEECs trade and cooperation agreements on a bilateral basis (Emmert and Petrovi, 2014: 1376). In a period of massive political change and economic restructuring, Western Europe commenced granting direct financial support through various programmes. This "policy of (…) conditionality" (Torreblanca, 2001: 31-32)[47] was to support post-cold-war Europe in their 'transitions' away from state socialism—the new vision: democratic political institutions and capitalist economies. Remarkably yet

[47] Primarily, assistance was granted through the PHARE (Poland and Hungary Assistance for Restructuring the Economies) programme established in 1989, much of whose investment was co-financed by other institutions such as the World Bank, the European Bank for Reconstruction and Development and the European Investment Bank (EIB). The PHARE programme was later expanded from Poland and Hungary to cover ten countries, among others Romania, of which all applied for EU membership. For a comprehensive assessment of the PHARE programme, including an overview of the total amount spent for pre-accession financial assistance, see Business and Strategy Europe (2015).

not surprisingly, this approach was not without second thoughts. By deploying huge amounts of money to support the transition in the East, the EU had established an "asymmetrical relationship, in which [it] set the conditions for assistance, and ultimately for accession" (Sedelmeier and Wallace, 2000: 427).

Securing an effective and sustainable reuniting of East and West required not only considerations on whether to plan for the accession of CEECs. It also necessitated ideas on how to integrate these countries which still fundamentally differed in cultural, economic and social terms from Western Europe. The EU consequently desisted from a policy of mere conditionality and soon favoured "a new policy of association" (Torreblanca, 2001: 47). However, this "veritable pre-accession strategy" was still considerably characterised by the principle of conditionality (Emmert and Petrovi, 2014: 1378).

Main steps and challenges on the way to accession

The association partnership with Romania was the first key legal instrument of the EU's new, "reinforced pre-accession strategy" (European Commission, 1997b: 60). In February 1993, the association agreement was signed. Shortly after, the 1993 European Council in Copenhagen "agreed that the associated countries in Central and Eastern Europe that so desire shall become members of the European Union" (European Council, 1993: 13). Romania, now recognised as a potential candidate, submitted its application for membership to the European Council in June 1995. Following the general endorsement of the possibility of enlargement, Romania as an associated country had to amend its domestic policies to comply with the 'Copenhagen criteria'. The candidate was to achieve "stability of institutions guaranteeing democracy, the rule of law, human rights and respect for and protection of minorities, the existence of a functioning market economy (…) and approximation of laws (…) to those applicable in the Community" (ibid.: 14-15). These criteria required political, economic, legal, and social investments and aimed for common standards in an enlarged Union.

Bound to their fulfilment, the formal enlargement procedure started with the 1997 *Commission Opinion on Romania's application for membership of the European Union* (European Commission, 1997c). Since it "formed the basis for the initial treatment of an application for accession", the Opinion was a cornerstone on the way to Romania's accession (Inglis, 2010: 103). It not only considerably influenced the Council who formally decided on opening accession negotiations with Romania but also required the candidate to prepare its negotiation

positions. In February 2000, negotiations between the EU and Romania were launched. Dependent on different policy areas, some 'easier' chapters of the *acquis* were opened earlier for negotiations than others. With closing the last 'difficult' *acquis* chapters, negotiations ended in December 2004. In 2005, the *Treaty of Accession* (European Union, 2005a) between Romania and the EU was signed. The way was paved for joining the Union in January 2007.

This "open access model" (Emmert and Petrovi, 2014: 1350) of taking in new countries to expand its realm is by no means an easy undertaking for the Union. In fact, "enlargement affects the EU's institutional structure, and often triggers changes in the rules governing politics and policy-making" (Sedelmeier, 2010: 402). The effects of expansion on supranational structures become particularly clear when considering redistributive policy areas that receive the most funding from the EU budget. A prime example of this is the CAP. Due to ever more increasing diversity among both Member States and candidate countries, the EU had to shift towards a more 'flexible integration'. This demand for structural and decision-making reforms consolidated, among others, in treaty provisions on closer cooperation (Laffan and Mazey, 2006: 33-34). Especially the extensive fifth enlargement round, the eastern enlargement, "ha[d] far-reaching effects on the institutional set-up and central policies of the EU and has triggered tough negotiations on budget and institutional reforms" (Schimmelfennig, 2006: 208). After all, eastern enlargement entailed substantial financial costs and risks for the Member States. It thus posed a real threat to European solidarity (Carius et al., 2000a: 10) which was decisive for the "long reluctance to acknowledge formally the possibility of an eastern enlargement" (Sedelmeier, 2010: 402-403).

Instruments for pre-accession assistance

Apart from the considerable effects eastern enlargement had on the EU's own political and economic foundation, "the accession countries, however, have arguably been affected even more strongly" (Schimmelfennig, 2006: 208). Regarding Romania's accession process, a regulatory alignment with the *acquis* was required by the EU. This not only prepared Romania for membership and engaged the candidate in restructuring its economy. Progress in compliance also reassured critics fearing that a premature entry would degrade common EU standards (Sedelmeier, 2015: 420). Hence, several legal-political instruments which were to substantiate the Copenhagen criteria have been designed to make the conditionality principle workable (Kochenov, 2008: 78). The Union's enlargement policy and reinforced pre-accession strategy were based on four interdependent pillars. General legal requirements have

been the foundation for relations between Romania and the EU. They were laid out in the Union's enlargement clause (European Union, 2012: Art. 49 TEU[48]) and in the association agreement. The pre-accession strategy as the second pillar is composed of association partnerships, Council decisions, the *Agenda 2000* (European Commission, 1997b and 1997d), and the 1997 Commission Opinion. Essentially, the Commission's *White Paper* (European Commission, 1995) represents the core of the pre-accession strategy. "Its purpose is to provide a guide to assist the associated countries in preparing themselves for operating under the requirements of the European Union's internal market" (ibid.: 2).

The remaining two pillars consisted of technical and financial instruments. They provided assistance throughout the entire pre-accession process, for example in aligning with the internal market or the environmental *acquis*. Technical assistance tools primarily intended to "make it easier for the accession countries to transpose European legislation into national law and to apply it effectively" (Carius et al., 2000b: 151). This happened through measures such as the environmental *acquis* guide (European Commission, 1997a), legal gap assessments, screening processes, the Commission's TAIEX[49] Office and the AC-IMPEL[50], as well as through Twinning projects. As the transposition of EU legislation into national law required large-scale policy and infrastructure transformations, the EU furthermore granted extensive and long-term financial aid to Romania. This happened mainly through the PHARE programme, by far the most essential financial instrument for accession. It was complemented by two other instruments (ISPA[51] and SAPARD[52]) for the period between 2000 and 2006. To guarantee that the money is well spent, Romania had to prepare a 'National Programme for the Adoption of the Acquis' (NPAA). This should "provide an overview of the range of short- and medium-term priorities that [Romania] sought to address linked to meeting the criteria for EU membership" (Business and Strategy Europe, 2015: 23). An important requirement to receive PHARE aid was the progress achieved in democratic transition. Owing to government-organised violent repression of post-election demonstrations in 1990, Romania was meanwhile suspended from these subsidies (Phinnemore,

48 Acronym for "Treaty on European Union".

49 Acronym for "Technical Assistance and Information Exchange".

50 Acronym for "Network for the Implementation and Enforcement of European Environmental Law in the Accession Countries".

51 Acronym for "Instrument for Structural Policies for Pre-Accession".

52 Acronym for "Special Accession Programme for Agricultural and Rural Development".

2001: 252; Vachudova, 2005: 100). This underpins the strict conditionality the EU was exerting on Romania from early on. The Union's main funding instrument for the environment was (and still is) the LIFE programme which was launched in 1992. After the first two phases, participation was opened to EU accession countries in 1999, and Romania was in fact the first to get involved (European Commission, 2018). The country benefitted from financial support for projects such as habitat restoration on Danube islands (European Commission, 2021b) or the introduction of new software for water quality monitoring (European Commission, 2021c).

The substantial foreign investments under these 'accession-driven' support mechanisms showed the EU's major interest in integrating Romania politically, economically and environmentally. This, however, was not only a unilateral benefit. On the contrary, the pre-accession influence tools, combined with the Copenhagen criteria, "represented an important instrument of dynamic steering of the pre-accession reforms" in Romania (Kochenov, 2008: 79). The level of pressure could thus have been readily adjusted according to the compliance progress with the *acquis*. This made an overall achievement of pre-accession compliance more likely. Kochenov (2008: 80) draws the conclusion that this "sophisticated system of reform promotion (…) allowed it to make practical use of the conditionality principle for the benefit of both the European Union and [Romania]".

Until Romania's accession in 2007, the association agreement provided the legal framework for relations between the candidate and the Union. Even with further steps towards accession, such as potential candidate status or pre-accession alignment, the association partnership remained the key legal instrument (Sedelmeier, 2015: 419). Hence, both profound political changes and Western-induced middle- and long-term reforms paved the way for the entry of, ultimately, eight CEECs to the EU. This enlarged the community to a 27 Member States Union in 2007.

Negotiating the Acquis*:*
No Concessions on Water Quality to the More Powerful EU Core

Against the background of the fundamentals of Romania's accession process, this part of the second chapter checks *Hypothesis 2*. It was assumed that during accession negotiations the candidate at Europe's periphery was forced to concessions on cross-border nutrient pollution by powerful core EU Germany. In return, Romania was granted exclusive accession ease for complying with challenging yet important Union policies. To prove this tendentious and

controversial hypothesis, subsequent analysis of accession negotiations between Romania and the EU follows two main steps: first, an overview of peculiarities and EU-dictated principles during negotiations with Romania is provided. Second, light on concrete subjects of negotiations regarding the *acquis* chapters 'agriculture' and 'environment' is shed. Therefore, official documents issued by the European Union are drawn upon as primary sources. A deal as assumed between Germany and Romania would of course have affected not only agricultural but also environmental legislation. The environment chapter was hence scrutinised for pertinent indicators. Findings suggest that no commitments were made by Romania to receive polluted waters from upstream in exchange for accession ease. A second emphasis is placed on agriculture. This sector is particularly important to both countries. Yet, Romania's slow progress in aligning its national agricultural law with EU legislation represented a serious threat to accession. The candidate consequently asked for transitory measures which were to facilitate its way to accession. Benefits such as selling agricultural products to other EU Member States without trade barriers were thus of major interest for Romania. On the other hand, also Germany relies on a strong agricultural sector to supply its population and livestock. As previously discussed, its detrimental impact on the environment cannot be denied. However, evaluations of negotiation documents indicate no exceptions whatsoever for the powerful upstream country to pollute further downstream countries.

Where appropriate, results from interviews are included in the analysis. In line with findings from policy research, experts confirmed that the EU was truly interested in environmental capacity building in Romania. This agenda would have been in stark contrast to the attempt of one single country, i.e., Germany, to derive from it. In fact, Romania was not only supported but also obliged to improve water quality standards according to the *acquis*. Sound water quality along the entire Danube has ever been a core interest of the EU and its (Danube) Member States. By no means was the candidate exploited as 'European peripheral landfill' for excess nutrients. This is opposite to the initial assumption. Germany as core Member State has not taken advantage of its power against the weaker candidate at the EU's periphery during sensitive accession negotiations. Apart from a few, all interviewees hence emphatically dismissed this provocative hypothesis. However, a Romanian non-governmental freshwater manager pointed out that there are indeed power asymmetries within the DRB that are relevant for pollution management (Ionescu, 2021). And informal deals are certainly not uncommon in such situations of international diplomacy (Arzet, 2021). Yet, this imbalance has never had negative effects on cooperation regarding collective action problems such as

nutrient pollution. Rather, power is used to support less developed countries in the basin through knowledge transfer and inspire them to enhance their water management sector. This was not only highlighted by German water management officials such as Grambow (2021), but also by a senior representative of the Romanian water management administration as well as by Kovacs (2021) as a politically independent member of the ICPDR Secretariat.

Overall, counterchecking the findings from official documents with insights from practitioners provide a differentiated and insightful view of the issue. Each Member State is obliged to comply with European legislation collected in the *acquis*. To substantiate this key principle, the EU links accession to a strict transposition of all *acquis* chapters. This principle of conditionality was also applied to agriculture and the environment during negotiations with Romania. Both the candidate country and Member States had no leeway to substantially derogate from EU legislation—especially not by forging a deal that deliberately violates core principles of European environmental law. With empirical confidence, the assumption of a deal on water quality between Germany and Romania during accession negotiations can therefore be rejected.

Clear principles for EU-Romanian accession negotiations

Characteristic of international negotiations, parties involved usually try to gain as many benefits for themselves as possible by leading the others to concessions. In a bargaining process, actors exchange information, threats, and promises to their own preferences. The outcome depends on the actors' relative bargaining power (Schimmelfennig and Sedelmeier, 2005: 10). As Lavenex and Schimmelfennig (2011: 892-893) argue, "bargaining power is a result of the asymmetrical distribution of the benefits of a specific agreement". From this, they infer that "those actors who are least in need of a specific agreement are best able to threaten the others with non-cooperation and thereby force them to make concession" (ibid.: 893).

Regarding eastern enlargement, both the EU and applicants were expected to benefit from accession. Yet as Moravcsik and Vachudova (2003: 46) point out, it was clear from the very beginning that "the applicants will benefit more and thus desire it more". Obviously, as they reason, this "asymmetry of interdependence and thus power" also characterised negotiations (ibid.). To still gain advantages, Romanian negotiators could have used relatively high bargaining chips as leverage when trying to make a deal or an agreement. In accordance with

the hypothesis, the Lower Danube ecosystem could have been deployed as such a bargaining chip.

In the context of EU accession negotiations, however, this procedure was somewhat different. Due to the Unions' conditionality principle and the very limited scope for bargaining over contents of the *acquis*, no typical negotiations took place. Nevertheless, candidate countries are always keen to get as many transitional periods as possible to soften tough accession conditions. To provisionally close chapters, Romania had to make "credible commitments concerning the alignment of legislation with the *acquis* and the administrative capacity to apply it properly" (European Commission, 2000b: 25). However, these commitments which were closely monitored by the Commission have been of unilateral nature—on the EU side, there have been "no reciprocal commitments" (Nikolova, 2006: 410). This substantiated both the power asymmetry during negotiations and the non-negotiability of the *acquis*. Moreover, Romanian negotiators always had to bear in mind that they must seek an outcome that all Member States need to accept. For only unanimity among them eventually permits entrance to the Union.

The principles of accession negotiations between the EU and Romania in the context of eastern enlargement have been laid out in the Commission's policy document *Agenda 2000* (European Commission, 1997b: 60-61). The stage of negotiations was preceded by a pre-negotiation phase. Before negotiations could be opened, not only political criteria ('Copenhagen criteria') had to be fulfilled but also some level of *acquis* compliance achieved. Furthermore, Romania had to pass a progress report on its economic situation. This "add-on country specific conditionality" was different to former enlargement rounds and "gave rise to concerns that the EU was not treating (…) Romania on an equal footing with other CEECs" (Nikolova, 2006: 399-400). Member States had to decide unanimously whether and when to open accession negotiations. This was an essential step on the way to Romania's accession since opening negotiations "indicated the willingness to offer Romania fully-fledged membership" (ibid.: 400). Gate-keeping the access to negotiations was and still is considered the EU's "most powerful conditionality tool" (Grabbe, 2001: 1018).

Despite not being identified as central actor for accession negotiations by the EU's enlargement clause (European Union, 2012: Art. 49 TEU), the Commission played a "very significant role" (Sedelmeier: 2015: 424) in all stages of the accession process and particularly

during negotiations.[53] De jure, the Council on behalf of its Member States had to decide about opening negotiations. Effectively, though, the Commission conducted a 'screening process' which investigated Romania in greater detail to "identify the main problem areas for subsequent negotiation" (European Commission, 1997b: 61). The resulting Commission Opinions on Romania's readiness to proceed from the pre-negotiation to the negotiation stage were hence a decisive influencing tool on the Council for opening negotiations. In its 1997 Opinion on Romania's application for EU membership, the Commission concludes that "negotiations (…) should be opened with Romania as soon as it has made sufficient progress in satisfying the conditions of membership defined by the European Council in Copenhagen" (European Commission, 1997c: 115). Apart from these Copenhagen political criteria, also some level of *acquis* compliance had to be achieved. Regarding the implementation of environmental standards, the Commission pointed out as early as 1997 that Romania "can[not] be expected to comply fully with the *acquis* in the near future" (European Commission, 1997b: 56). That is why the Commission did not assess Romania's preparedness as it was common in earlier enlargement rounds. Rather, regarding a progressive transposition and implementation of the environmental *acquis*, the country's "prospective" readiness was evaluated (European Commission, 1997c: 2). To nevertheless facilitate a successful accession, the EU came up with a reinforced pre-accession strategy. It was "designed to ensure that [Romania] take[s] on as much as possible of the *acquis* in advance of membership" (European Commission, 1997b: 60). Concomitant with this pre-accession support, accession negotiations were conducted to set adequate conditions for entering the Union.

Based on this initial screening procedure and Romania's subsequent negotiation positions, the phase of accession negotiations started in February 2000.[54] Their overall aim was to "define the terms and conditions" (European Commission, 1997b: 60) on which Romania accedes to the Union. To put it another way, the commitments made by Romania reflect the result of accession negotiations (ibid.). Usually, 'negotiations' suggests open bargaining. However, the outcome of EU accession negotiations was "largely pre-determined by (…) the applicants' adoption of the entire body of EU legislation and policies codified in the *acquis communautaire*" (Schimmelfennig, 2006: 218). In order to facilitate the administrative process of enlargement and particularly of negotiations, EU secondary legislation and

[53] The Commission has often been "able to broker compromises and identify solutions" when negotiations were about to seize up (Sedelmeier, 2015: 423).

[54] Negotiations on the environmental chapter were postponed to the first semester of 2002 since Romania still had to make considerable progress in environmental capacity building (UNECE, 2001: 21).

policies have been subdivided into 31 'chapters'. Each of these *acquis* chapters covered a specific policy-area, such as "Free movement of goods", "Agriculture" or "Environment".[55]

Since every member of the Union is legally bound to comply with the *acquis*, the "guiding principle" of accession negotiations is that "the *acquis* is not negotiable" (Sedelmeier, 2015: 423). Romania was therefore "expected to apply, implement and enforce the *acquis* upon accession" (European Commission, 1997b: 61). Thus, "[t]he only true negotiations concern the possibility and length of 'transition periods' during which the application of EU rules in the new member states is suspended after accession" (Schimmelfennig, 2006: 218). The insistence on *acquis* compliance rendered accession negotiations a "key mechanism for binding the EU and (…) Romania" (Nikolova, 2006: 394). Prior to accession, a tremendous amount of EU policies and regularities had to be transposed into national law.[56] Due to difficulties with fully aligning national law with all *acquis* chapters before accession, no enlargement round has ever gone without requesting and granting transitory arrangements. To avoid inflationary utilisation, the EU classified requests for transitional measures into three categories. Taking Romania, for example, requests were "acceptable" particularly in cost-intensive legislative areas such as the environment. Transition periods "linked to the extension of the single market" should be "few and short" (European Commission, 1999: 27; 2000b: 26-27). Longer phase-outs in this area are thus by and large classified "unacceptable". In other areas requests were "negotiable" as long as Romania could justify why a transitional period was necessary (ibid.).

Since the EU's accession strategy permits transition measures only "in duly justified cases" (European Commission, 1997b: 61), Romania requested transitional periods for *acquis* chapters that were particularly challenging to adopt. Regarding the environment, for instance, Romania asked for transitory exemptions for five water quality Directives (Fuerea et al., 2004: 70; European Union, 2005b: 166-171). Due to high financial and administrative investments needed to comply with EU standards, the Commission categorised these requests as 'acceptable'. Yet before negotiations started, the Commission (1997b: 49) made a clear statement: "a partial adoption of the *acquis*", and thus a derogation from the Union's legislative framework, has basically been "ruled out" by the European Council. Should Romania nevertheless gain any kind of exception from this premise, "it is clear that this would not be

55 A chapter-by-chapter description of the *acquis* can be found in the Commission's 1997 Opinion on Romania's application for EU membership (European Commission, 1997c).

56 In total, Romania had to align national law with some 80,000 pages of EU secondary legislation.

without compensation" (ibid.). The EU consequently insisted upon full *acquis* approximation at the time of accession. Pointed out by the Commission, these "exceptionally" granted transitional measures "shall be limited in time and scope, and accompanied by a plan with clearly defined stages for application of the *acquis*" (European Commission, 2000b: 26).[57] Furthermore, these measures need to fulfil central conditions: their potential transboundary impact must be limited, and they must not lead to significant distortions of competition (European Council, 2005: 18).

Accordingly, different objectives between the negotiation partners prevailed: Romania, despite having had only "little to bargain with because of the strong desire of their political elite to join [the Union]" (Grabbe, 2006: 52), tried to attenuate tough *acquis* conditionality by negotiating longer timeframes for compliance. The EU, on the other hand, expected candidates to fully comply with the *acquis*. Overall, the EU was able to offer Romania "a less generous deal" compared to former candidates (Nikolova, 2006: 394). This is mainly because Romania "feared postponement or even cancellation of membership" (ibid.). This illustrates why the term 'negotiations' is somewhat misleading in the context of EU enlargement.

The asymmetrical distribution of negotiation power was hence predetermined by a peculiar situation: the desire of CEECs to join the Union "was not matched by an equal willingness on the EU side to take them in" (Grabbe, 2006: 194). Negotiations were characterised by a 'take it or leave it' approach which should substantiate the importance of implementing the whole *acquis*. Nevertheless, fierce criticism of eastern enlargement remained.[58] To reassure doubters and to "guarantee a higher degree of consistency between the preparations for accession and the negotiation itself" (European Commission, 1997d: 2), the EU reinforced its pre-accession process. By providing considerable financial and technical support, the demand for transitional periods beyond accession was tried to be "avoided insofar as feasibly possible" (Inglis, 2010: 145). Granting too many or too extensive transition periods would have undermined the *acquis's* vigour and, as a result, the Union's credibility. Therefore, transitional arrangements had ever to be perceived as the exception rather than the rule dur-

[57] As Schimmelfennig (2006: 218) concludes, an overall of 322 transition periods were agreed on between the EU and CEECs, most of them in agriculture, taxation, and environmental policy.

[58] As Carius et al. (2000a: 10) argue, eastern enlargement due to its substantial financial costs and risks for the Member States posed a real threat to European solidarity. This considerably contributed to "the long reluctance to acknowledge formally the possibility of an eastern enlargement" (Sedelmeier, 2010: 402-403).

ing Romania's accession negotiations. In any case, the prevailing "asymmetry of interdependence allowed the EU to set the rules of the game in the accession conditionality" (Grabbe, 2006: 52). Yet as Grabbe (2001) extensively argues, this monopoly of conditionality was rarely used negatively by the EU. The two governing principles during negotiations, differentiation and catching up, supported this idea. They ensured that Romania was "assessed on its own merits" and that it could catch up to the other candidates whose negotiations started earlier (European Commission, 2000b: 25).

Negotiations on agriculture and environment: no harmful concessions in return for transitional periods

This chapter focuses on policies and communications documenting Romania's negotiation progress between 2000 and 2004. As mentioned above, the European Commission set up fundamental negotiation principles in its *Agenda 2000*. They were complemented and substantiated by the Commission's 1997 Opinion on Romania's application for membership. Based on these guidelines, negotiations started in 2000. Their yearly progress was recorded in the Commission's *Regular Reports.*[59] These screening documents were a good indicator to evaluate Romania's progress in adopting the *acquis*. They furthermore revealed if the candidate has taken on priorities that were emphasised in the Commission's 1997 Opinion. All reports from 1998 on "serve[d] as a basis for taking, in the Council context, the necessary decisions on the conduct of the accession negotiations" (European Council, 1998: para. 29). Following the same structure as the Opinion from 1997*,* they described relations between Romania and the Union. Moreover, they analysed the situation in respect of the political and economic conditions set by the European Council. And the question of Romania's capacity to adopt the obligations of membership, that is the *acquis,* was addressed (European Commission, 1998: 4-5). This transparent assessment should "ensure equal treatment for all the candidate countries" (ibid.: 5). Results of this continuous screening were reported to the European Council and served as the basis for decision making during negotiations. Commitments, requirements and transitory measures which were negotiated until 2004 were documented both in the Commission's *2005 Comprehensive Monitoring Report* (European Commission, 2005a) and the final *Treaty of Accession* (European Union, 2005a).

[59] See, for example, COM(2004) 657 final, "2004 Regular Report on Romania's progress towards accession" (European Commission, 2004).

During the time of negotiations, agriculture was an essential economic branch for Romania.[60] At the same time, however, it was also one of the most challenging sectors to align national law with European standards. As made clear by a late Regular Report, "[t]wo of the most difficult and longest-lasting agricultural reforms" have been land restitution and privatisation of state farms, which "almost reached completion" in 2004 (European Commission, 2004: 77). Overall, before negotiations on agriculture could be opened, "a major structural reform of the sector [was] needed" (European Commission, 2000c: 54). Therefore, this research puts a focus on progress made and challenges faced by Romania regarding this *acquis* chapter. Indications of whether the second hypothesis proves reliable were drawn from the nature and extent of transitional periods as means of accession ease granted to Romania.

Regarding the environment, implementation of standards was poor in Romania and all other CEECs before negotiations started. The Commission took into consideration that "none of the candidate countries can be expected to comply fully with the *acquis* in the near future" (European Commission, 1997b: 56). Environment therefore posed "a major challenge for enlargement" (ibid.: 56). Reasons for this were Romania's "present environmental problems and the need for massive investments" (ibid.). Especially when it comes to tackling water pollution, prospects for the candidate could only be improved "[i]n partnership with the Union" (ibid.). The Commission's prediction from 1997 was confirmed by the *2000 Regular Report*. It states that despite some progress "the status of approximation is still very low" (European Commission, 2000c: 85-86). Consequently, this more difficult chapter could be opened for negotiations only in 2002.

A first key finding of policy evaluation is that the implementation of crucial economic legislation (especially in the agricultural sector) was challenging for Romania. This posed a serious threat to being admitted to the Union. To exploit its agricultural potential, the candidate pursued a quick alignment of national legislation with the 'agriculture' and 'free movement of goods' *acquis*. After all, both *acquis* chapters could have been efficiently adopted. Romania had no need for transitory measures concerning free movement of goods, and

[60] Agriculture then employed more than one-third of the working population and contributes 20% of the Gross Value Added (European Commission, 1997c: 112). For agricultural figures see chapter 7 in each Regular Report.

barely any temporary derogations from the agriculture chapter were agreed. For non-compliance with respective legislation, Romania had to accept compensations such as less direct payments via the CAP regime.

A second result is that using the (aquatic) environment as a bargaining chip would have been inauthentic. Already before negotiations started, Romania suffered severe environmental problems—especially in terms of water pollution. This was mainly due to an overall low prioritisation of environmental concerns by the Romanian government (European Commission, 1997c: 89-91[61]; Ionescu, 2021). It is thus assessed highly unlikely that Romanian negotiators could have used the environmental sector as leverage to compensate for easier accession conditions. For such a bargaining chip (e.g. an intact water ecosystem) is only acknowledged by a negotiating partner if it does indeed exist and if it represents an apparent value for its holder.

To increase environmental awareness and to support capacity building in the water management sector, the EU set up a long-term and cost-intensive pre-accession programme. Emphasis was thereby also put on agri-environmental measures to establish environment-friendly agricultural practices. A deal made at the same time on water pollution at the expense of Romania would have undermined this agenda. In line with these findings, a senior member of the Romanian Director for Water Resources Management pointed out that "the rules of adhering to the *acquis* requirements were clear to everyone involved in negotiations. Acting against the commonly agreed agenda would have simply been impossible". And the Bavarian Director General for Water Management and Soil Protection stressed that "our support of CEECs showed that it was definitely more a mutual cooperation rather than any kind of exploitation to the advantage of Germany" (Grambow, 2021).

The Regular Reports of 2001-2004 confirm Romania's need to establish administrative and infrastructural capacities to combine agricultural and environmental concerns. Both sectors are important to tackle domestic water pollution. Caused by pollutants from agriculture, excess nutrient rates considerably accounted for poor Danube water quality (European Com-

[61] This led to severe environmental problems in Romania, with particular challenges in all key areas. Especially, the state of water resources raised many concerns for the Commission. Remarkably, as the 1997 Opinion points out, much of the water pollution in Romania is caused by nitrates resulting from intensive agriculture. Consequently, "[t]he serious pollution problems of the Danube originate to a significant extent in Romania" (European Commission, 1997c: 90). Adaptation to the *acquis* therefore required Romania "to place higher priority on environmental issues" (ibid.). That is, financial investments and administrative capacity-building had to take place, and directives had to be implemented (ibid.: 91).

mission, 1997c: 90). To manage this huge task of capacity building, Romania was technically and financially supported by the EU. While in 2000, "no part of the rural development *acquis* and in particular the agri-environmental measures has been implemented so far in Romania" (European Commission, 2000c: 48), the *2001 Regular Report* states that "some progress has been made" (European Commission, 2001: 54). In October 2000, the Romanian Government approved the 'Action Plan for Protection of Waters Against Pollution with Nitrates from Agricultural Sources' and set up a Commission for its enforcement. Besides establishing a framework for introducing the Code of Good Agricultural Practices, the Action Plan proposed the identification of vulnerable zones (Government of Romania, 2000; European Commission, 2001: 54). In the field of water quality, Romania also started to identify and select areas that are to be classified as sensitive areas regarding urban wastewater. This process, as the Commission stressed, "is of great importance given the costs that will be involved in proper implementation" (ibid.: 81). Remarkably, as one interviewee who was part of these negotiations emphasised, Romania could have achieved that not only Romanian territories but major upstream parts as well were declared sensitive or vulnerable zones. This shows that even relatively weak candidates are able to influence EU policy making as they prefer.

Moreover, and important for the context of the Danube, the candidate country has also adopted a regulation for the organisation and functioning of water basin committees in line with the requirements of the 2000 WFD (European Commission, 2001: 81). In 2002, the report records progress regarding Good Agricultural Practices for which a manual has been prepared (European Commission, 2002: 71). As mentioned in the environment chapter, Romania prepared an action plan for reducing pollution of groundwaters and the aquatic environment. The country also set norms regarding the discharge of wastewaters and several water quality standards, and committees responsible for water basin management commenced their activities (ibid.: 104). Whereas not mentioning any significant developments regarding agri-environmental measures (European Commission, 2003b: 64), the *2003 Regular Report* does document several laws which have been adopted. Among others, they are located in the field of pollution caused by nitrates (ibid.: 96). The Report furthermore mentions that a committee for the coordination and monitoring or the implementation of the WFD has been set up (ibid.).

Major progress could be made in 2004 in terms of administrative capacity building and preparations for the structuring of the post-2007 national agri-environment programme. The

number of staff has considerably been increased in key institutions involved in preparing accession in the agricultural field (European Commission, 2004: 74-75). Therefore, the Commission concluded at the end of negotiations: "Romania is meeting the majority of the commitments and requirements arising from the accession negotiations for this chapter" (ibid.: 79). This goes along with improvements made in the field of water quality since the 1997 Opinion. In 2004, legislation was adopted on an integrated monitoring system for nitrate pollution and on the approval of programmes for monitoring pollutants from agricultural sources (ibid.: 117-118). Also, a methodology was developed for the designation of vulnerable zones that drain into waters affected by nitrate pollution, such as the Danube river (ibid.: 118). Despite having made "good progress in aligning its legislation with the *acquis* in most environment sectors and in preparing for its implementation", the Report states that "full implementation still poses a major challenge" for Romania, "including in terms of investment" (ibid.: 120). This urged the would-be Member State to request transition periods for ten Directives and one Regulation, among others on urban wastewater treatment and integrated pollution prevention and control (European Union, 2005b: 166-171). Hence, negotiations on the environment chapter had to be continued until 14 December 2004 when all 31 chapters with Romania could have been finally closed (European Commission, 2004: 120; European Council, 2005: 5).

The 2005 *Report on the Results of the Negotiations on the Accession of Romania to the EU* (European Council, 2005) provides a list with all transitional arrangements granted to Romania for each chapter. In terms of free movement of goods (chapter 1), all measures that restrict trade were removed during negotiations. Taking over and implementing the *acquis* under this chapter did not necessitate any temporary derogation (ibid.: 5). It therefore enabled Romania to sell its agricultural products to every EU Member State as from the date of accession. The results of negotiating the agricultural chapter show that Romania will have taken over and implemented the majority of EU legislation as of the date of accession. Only in very few areas, transitional measures limited in time and scope were agreed upon. In the rural development area, "Romania will benefit from (…) [s]pecial support to semi-subsistence farmers undergoing restructuring" as well as from "[s]upport for meeting EU standards for (…) the environment" (ibid.: 10). As set out in the *Protocol concerning the conditions and arrangements for admission of Romania to the European Union*, financial contribution of the Community may amount up to 85% for agri-environment measures (European Union, 2005b: 200). For agricultural enterprises which have been granted a transitional period after

accession to meet the minimum standards regarding the environment, "[s]upport for investment to improve the processing and marketing of agricultural products" has been provided (European Union, 2005c: 373). This emphasises the genuine interest the EU had to establish an agricultural infrastructure that also takes environmental considerations into account. Exceptionally granted transitional periods and financial support for complying with the *acquis* went, as mentioned above, never without compensation. That is why the Commission decided that Romania had to accept receiving less direct payments via the EU CAP for a limited time compared to other Member States (European Council, 2005: 8). Additionally, for those livestock establishments which will not comply with EU standards, transitional arrangements have been agreed upon until the end of 2009. During this transitional period, "products from the establishments in transition must be specially marked and may not be marketed in any form in any other EU country" (ibid.: 10; European Union, 2005b: 149-150). That is why accession conditionality for Romania extraordinarily expanded even beyond the day of accession (Sedelmeier 2015, p. 425).

Regarding the environment chapter, preparations for membership presented three particular challenges—legal, administrative and financial. Especially the latter demanded several transitional measures which, "[g]iven the volume of the environment *acquis*", were, however, "exceptional" (European Council, 2005: 18). Their potential transboundary impact has furthermore been estimated limited and they were expected to not lead to significant distortions of competition. To ensure full implementation within the period of transition, "detailed legally binding intermediate targets" had to be established and achieved, "backed up by detailed financing strategies" (ibid.). In the environmental subchapter 'Water quality', Romania was granted a transitional period until 2018 to comply with the EU Urban Waste Water Treatment Directive[62] (European Council, 2005: 19). Regarding the quality of water intended for human consumption[63], transitional arrangements have been agreed for a limited number of parameters within Romania until the end of 2010 (ibid.). Additional transitory periods have been issued to align national law with the EU Integrated Pollution Prevention and Control Directive[64]. Specific installations will have to comply with 'Best Available Techniques' in Romania until 2015 (European Council, 2005: 21).

62 Council Directive 91/271/EEC (European Council, 1991).

63 See Council Directive 98/83/EC (European Council, 1998).

64 Council Directive 96/61/EC (European Council, 1996).

All these transitory measures granted during negotiations, and the compensations demanded from Romania in return, were manifested in the *Treaty of Accession* and its affiliated policies (European Union, 2005d). The 2005 *Protocol concerning the conditions and arrangements for admission of Romania to the European Union* lists permanent (Art. 16-19) and temporary (Art. 21-42) provisions (European Union, 2005b: 34-42). None of them aimed at burdening Romania's environment as a form of compensation in exchange for measures easing accession.[65] Consequently, the Commission concluded in its 2005 Opinion on the application for accession to the EU by Romania that "it is apparent that the provisions so agreed are fair and proper" (European Commission, 2005b: 3). The accession of Romania therefore "will enable it to take a fuller part in the development of international relations" and "will help to strengthen safeguards for peace and freedom in Europe" (ibid.: 4).

Conclusion

Cooperation on transboundary watercourses can be a major facilitator for bridging power disparities between states.[66] Regarding political factors of managing transboundary nutrient pollution in the DRB, it does not really matter whether to be located at the EU's core or periphery. The assessment of the nature of the problem as well as of political and socio-economic factors in the world's most diverse catchment revealed a strong inter-riparian consensus to improve the qualitative status of the Danube. This goal can only be achieved together. With ambitious and comprehensive policies such as the WFD, the European Union pushes towards sustainable management of this important and sensitive aquatic ecosystem. And the ICPDR, supported by its contracting parties, continuously promotes measures that perfectly complement EU requirements on pollution and basin governance. In combination, an international policy setting has been created that meets all requirements necessary for the long-term protection of one of Europe's most complex common-pool resources.

---

65 For specific permanent provisions regarding agriculture, see European Union (2005b: 95-96). And, according to Art. 20 of the Protocol, for transitional measures regarding the environment, see European Union (2005b: 157-188).

66 Besides the DRB, the International Sava River Basin Commission which was established in 2001 is another example for successfully and peacefully integrating European countries sharing a water body. Supported by the Stability Pact for South-Eastern Europe, four countries of the former Socialist Federal Republic of Yugoslavia (Bosnia and Herzegovina, today's Serbia, Slovenia and Croatia) "entered into a process of cooperation (…) on launching (…) joint activities in regard to the Sava River and its tributaries" (International Sava River Basin Commission, 2008).

Remarkably, this institutionalised framework renders power imbalances between the various Danube states almost negligible. Except for different national capacities to implement concrete measures, political and economic asymmetries hardly impede agreements on joint objectives. Nor do potent riparians such as Germany regard it in any way adequate to draw upon their 'traditional' powers to exploit weaker states in terms of cross-border nutrient transfer. At the example of Romania's EU accession negotiations, the collaborative spirit in the field of water protection was demonstrated. Instead of taking advantage of the lowermost Danube state at Europe's periphery, the Union and its Member States had considerable interests in supporting the candidate with building administrative and infrastructure capacities. The cost-intensive pre-accession process should ensure that Romania can keep up with high European environmental standards by the date of accession in 2007.

This thesis has deeply immersed itself in the spheres of international diplomacy and rules for negotiations in the context of EU enlargement. In retrospect, the initial and straightforward assumption of unfair concessions may seem rather naïve. However, starting with such a provocative hypothesis facilitated this thorough research process. In the end, power imbalances between Romania (the '*demandeur*') and Germany (the mighty core EU Member State), did not manifest unfair pollution management structures along the Danube. In fact, democratic processes, rule compliance, and capacity building worked and made an orderly accession of a once low developed peripheral country possible. With several other Danube riparians entering the Union in 2004 and 2007, basin management became more productive, more inclusive and, most important, quite successful.

The regional and legislative integration contributed substantially to major improvements in the field of water quality across the DRB. Only with the start of institutionalised cooperation in the basin, earlier omissions regarding water quality and the transfer of nutrients via the river could have been compensated. The Delta and the Black Sea were no longer considered Europe's waste sinks. The ICPDR, however, does not only address the still ongoing nutrient problem. Rather, and with a strong legislative tailwind from Brussels, the river basin organisation encourages action, provides clear objectives and checks the implementation of relevant measures. Yet still, the success of policies, strategies and action plans to curb emissions depends on an integrative approach that considers all relevant actors—sources of pollution included. Despite some promising progress and commitments made by German agriculture, far too often unsustainable end-of-pipe thinking prevails throughout the basin. This applies to other industries such as coal mining or transportation as well. Typical for this attitude is

that pollution sources and environmental consequences are perceived mostly decoupled from each other. Environment agencies must not remain the only sector that profoundly cares for clean waters. Only process-integrative management structures that draw attention also to contributors of water pollution can lead to good environmental and chemical conditions for all parts of the Danube ecosystem.

Restoring chemically and environmentally sound water conditions is the joint vision of Danube states. Supported by key legislative principles to which all riparians committed themselves, achieving this goal should be within reach. However, notwithstanding several decades of intensive and institutionalised collaboration, considerable parts of the Danube are still contaminated by nutrients. At worst, unmanageable quantities of N and P particles will again start to settle in the Delta and the Northwest Black Sea shelf. That is why the ICPDR still considers nutrient pollution a significant water management issue in the Danube catchment. Yet, no deliberate upstream 'agendas' are responsible for poor downstream water conditions. In fact, it is socio-economic asymmetries that almost inevitably lead to unequal emission rates and transboundary river pollution. Nonetheless, the EU assesses the single national parts within international catchments regarding law compliance. This can lead to unfair results: even though downstream riparians themselves do not contribute much to polluted waters, they generally fail to comply with objectives for many WFD substances. Instead of benefitting from their still relatively low influx rates, countries such as Romania must often bear the brunt of pollution coming from upstream. This clearly counteracts the principles of fairness, precaution, and that the polluter must pay. Strikingly, each of these maxims is inherent to the politics of both the ICPDR and the EU.

To avoid conditions where only the lowermost riparian is damaged by pollutive upstream activities, a strategy of fair, equal, and environmentally compatible contribution to the overall pollution is required. Yet as this thesis has shown, interrelations between agricultural intensity, domestic emission rates, and the extent to which transferred pollutants might harm riparians further downstream are highly complex. And the issue of power imbalances plays a role as well—even if not as expected. Wouldn't it be great if all these determinants for successful management of nutrient pollution could be reconciled in a way respecting both ecological boundaries and national interests?

Let's assume that there is a certain maximum concentration value for the mouth of the Danube into the Black Sea. Based on this, each country outlet along the river shall not go beyond this threshold. Taking Austria as an example, the country receives waters from

Germany which itself complies with the defined Black Sea target concentration. Austria directs its waters to the next country further downstream, still meeting the Black Sea limit value. Hungary then passes on its ecologically sound waters to Croatia and so forth until the Danube discharges into the Black Sea. This not only assures that no country receives excessively polluted waters. It also guarantees that no riparian pollutes others. For some Danube states, complying with the target concentration would certainly require considerable reductions in national emission rates. Others—without encouraging a max out—may still have some scope left. Overall, this nutrient pollution control regime would fill a missing gap: to date, no pollution limit exists for the Danube's Black Sea mouth. "This makes it difficult to set clear guidelines for specific local reduction with regard to marine pollution" (Jekel, 2021). Hence, discussions on fair burden sharing among DRB states in terms of nutrient pollution could be initiated by this approach. The integration of all relevant sectors and pathways would be required. And the Union's often highly praised environmental principles could finally exploit their full potential.

This strategy, if implemented successfully, may serve as a blueprint for the management of other common-pool resources. Coordinated by the ICPDR and supported by the EU the countries along the Danube should live up to their reputation as highly ambitious actors in pushing boundaries towards more comprehensively managed aquatic ecosystems. This holds especially true for the era of the Anthropocene. Resources such as the Earth's atmosphere, fishing grounds, pastures, or forests are increasingly subject to pollution, overuse, congestion, and potential destruction. Just like managing the DRB, governing these commons requires farsightedness, a firm grasp of the issue complexity, clearly defined boundaries, and equal integration of all stakeholders.

References

Primary documents

Arzet, K. (2021) Interview with Jonas Schmitt online via Zoom, 18 June.

Brandner, J. (2021) Interview with Jonas Schmitt at Wasserwirtschaftsamt Regensburg (Water Management Office Regensburg), 29 June.

Danube Transnational Programme (2021) *IDES: Improving water quality in the Danube river and its tributaries by integrative floodplain management based on Ecosystem Services*. Available at: http://www.interreg-danube.eu/approved-projects/ides. [Accessed 6 September 2021].

DüV (2017) *Verordnung über die Anwendung von Düngemitteln, Bodenhilfsstoffen, Kultursubstraten und Pflanzenhilfsmitteln nach den Grundsätzen der guten fachlichen Praxis beim Düngen (Düngeverordnung - DüV)* ("Düngeverordnung vom 26. Mai 2017 (BGBl. I S. 1305), die zuletzt durch Artikel 97 des Gesetzes vom 10. August 2021 (BGBl. I S. 3436) geändert worden ist"). Available at: https://www.gesetze-im-internet.de/d_v_2017/D%C3%BCV.pdf [Accessed 9 September 2021].

European Commission (1995) *White Paper: Preparation of the Associated Countries of Central and Eastern Europe for Integration into the Internal Market of the Union, 3 May 1995* (COM(95) 163 final). Available at: https://op.europa.eu/en/publication-detail/-/publication/56d29901-7861-448c-82d8-0d006ba61fc1 [Accessed 7 September 2021].

European Commission (1997a) *Guide to the Approximation of European Union Environmental Legislation*. Revised and Updated Version of SEC (97) 1608. Available at: https://ec.europa.eu/environment/archives/guide/contents.htm [Accessed 6 September 2021].

European Commission (1997b) *Agenda 2000: For a Stronger and Wider Union, 15 July 1997* (COM(97) 2000 final, Vol. I). Available at: https://op.europa.eu/de/publication-detail/-/publication/80958a30-795a-4152-99a5-cf86f455a211/language-en [Accessed 7 September 2021].

European Commission (1997c) *Commission Opinion on Romania's application for membership of the European Union, 15 July 1997* (COM(97) 2003 final). Available at: https://ec.europa.eu/commission/presscorner/detail/en/DOC_97_18 [Accessed 9 September 2021].

European Commission (1997d) *Agenda 2000: The Challenge of Enlargement, 15 July 1997* (COM(97) 2000 final, Vol. II). Available at: https://op.europa.eu/de/publication-detail/-/publication/80958a30-795a-4152-99a5-cf86f455a211/language-en [Accessed 7 September 2021].

European Commission (1998) *Regular Report from the Commission on Romania's progress towards accession, 17 December 1998* (COM(98) 702 final). Available at: http://aei.pitt.edu/44598/1/romania_1998.pdf [Accessed 8 September 2021].

European Commission (1999) *Reports on progress towards accession by each of the candidate countries, 13 October 1999*. Composite paper (COM(99) 500 final). Available at: http://aei.pitt.edu/44637/1/composite_1999.pdf [Accessed 7 September 2021].

European Commission (2000a) Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy. *OJ*, L327, 22 December, pp. 1-73.

European Commission (2000b) *Enlargement Strategy Paper: Report on progress towards accession by each of the candidate countries, 8 November 2000* (COM (2000) 700 final). Available at: http://aei.pitt.edu/44638/1/strategy_2000.pdf [Accessed 7 September 2021].

European Commission (2000c) *2000 Regular Report from the Commission on Romania's progress towards accession, 8 November 2000* (COM (2000) 710 final). Available at: http://aei.pitt.edu/44601/1/Romania_2000.pdf [Accessed 8 September 2021].

European Commission (2001) *2001 Regular Report on Romania's progress towards accession, 13 November 2001* (SEC(2001) 1753). Available at: http://aei.pitt.edu/44603/1/romania_2001.pdf [Accessed 8 September 2001].

European Commission (2002) *2002 Regular Report on Romania's progress towards accession, 9 October 2002* (COM(2002) 700 final). Available at: http://aei.pitt.edu/44604/1/romania_2002.pdf [Accessed 8 September 2021].

European Commission (2003a) *Wider Europe – Neighbourhood: A New Framework for Relations with our Eastern and Southeastern Neighbours, 11 March 2003*. Communication from the Commission to the Council and the European Parliament (COM(2003) 104 final). Available at: https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2003:0104:FIN:EN:PDF [Accessed 7 September 2021].

European Commission (2003b) *2003 Regular Report on Romania's progress towards accession, 5 November 2003* (SEC(2003) 1211 final). Available at: http://aei.pitt.edu/44606/1/romania_2003.pdf [Accessed 8 September 2021].

European Commission (2004) *2004 Regular Report on Romania's progress towards accession, 6 October 2004* (COM(2004) 657 final). Available at: https://www.europarl.europa.eu/registre/docs_autres_institutions/commission_europeenne/sec/2004/1200/COM_SEC(2004)1200_EN.pdf [Accessed 9 September 2021].

European Commission (2005a) *Romania: 2005 Comprehensive Monitoring Report, 25 October 2005* (COM (2005) 534 final). Available at: https://op.europa.eu/de/publication-detail/-/publication/af03e4fc-9a92-4494-98f6-906c99a81b4c [Accessed 8 September 2021].

European Commission (2005b) Commission opinion of 22 February 2005 on the applications for accession to the European Union by the Republic of Bulgaria and Romania. *OJ*, L157, 21 June, pp. 3-4.

European Commission (2006) *Twinning: A tested experience in a broader European context*. Available at: https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/archives/pdf/press_corner/publications/twinning_en.pdf [Accessed 6 September 2021].

European Commission (2012) Consolidated version of the Treaty on the Functioning of the European Union [TFEU]. *OJ*, C326, 26 October, pp. 47-390.

European Commission (2015a) *The Water Framework Directive and the Floods Directive: Actions towards the 'good status' of EU water and to reduce flood risks, 9 March 2015* (COM(2015) 120 final). Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52015DC0120&from=EN [Accessed 9 September 2021].

European Commission (2015b) *Report on the progress in implementation of the Water Framework Directive Programmes of Measures, 9 March 2015* (SWD(2015) 50 final). Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52015SC0050&from=EN [Accessed 9 September 2021].

European Commission (2018) *The LIFE Programme*. Available at: https://ec.europa.eu/environment/archives/life/about/index.htm [Accessed 7 September 2021].

European Commission (2019) *Environmental Implementation Review 2019: A Europe that protects its citizens and enhances their quality of life, 4 April 2019* (COM(2019) 149 final). Available at: https://ec.europa.eu/environment/eir/pdf/eir_2019.pdf [Accessed 9 September 2021].

European Commission (2021a) *Introduction to the EU Water Framework Directive*. Available at: https://ec.europa.eu/environment/water/water-framework/info/intro_en.htm [Accessed 10 September 2021].

European Commission (2021b) *Conservation, restoration and durable management in Small Island of Braila, Romania* (LIFE06 NAT/RO/000172). Available at: https://webgate.ec.europa.eu/life/publicWebsite/index.cfm?fuseaction=search.dspPage&n_proj_id=3110 [Accessed 7 September 2021].

European Commission (2021c) *Development of an Integrated Basin Management System in order to correlate water quality and quantity analysis with socio-economical analysis, using Open-GIS technology* (LIFE03/ ENV/RO/000539). Available at: https://webgate.ec.europa.eu/life/publicWebsite/project/details/2163 [Accessed 7 September 2021].

European Council (1991) Council Directive 91/271/EEC of 21 May 1991 concerning urban waste water treatment. *OJ*, L135/40, 30 May, pp. 40-52.

European Council (1991) Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources. *OJ*, L375, 12 December 1991, pp. 1-8.

European Council (1993) *European Council in Copenhagen, Conclusions of the Presidency, 21-22 June 1993* (SN 180/1/93 REV 1). Available at: https://www.consilium.europa.eu/media/21225/72921.pdf [Accessed 7 September 2021].

European Council (1996) Council Directive 96/61/EC of 24 September 1996 concerning integrated pollution prevention and control. *OJ*, L257, 10 October, pp. 26-40.

European Council (1998) Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption. *OJ*, L330, 5 December, pp. 32-54.

European Council (1998) *Luxembourg European Council, Presidency Conclusions*, 12 and 13 December 1997. Available at: https://www.europarl.europa.eu/summits/lux1_en.htm [Accessed 7 September 2021].

European Council (2005) *Report on the results of the negotiations on the accession of Bulgaria and Romania, 25 February 2005* (5859/05). Available at: https://data.consilium.europa.eu/doc/document/ST-5859-2005-INIT/en/pdf [Accessed 9 September 2021].

European Union (2005a) Treaty of Accession of the Republic of Bulgaria and Romania. *OJ*, L157, 21 June, pp. 11-27.

European Union (2005b) Protocol concerning the conditions and arrangements for admission of the Republic of Bulgaria and Romania to the European Union. *OJ*, L157, 21 June, pp. 29-202.

European Union (2005c) Act concerning the conditions of accession of the Republic of Bulgaria and Romania and the adjustments to the Treaties on which the European Union is founded. *OJ*, L157, 21 June, pp. 203-375.

European Union (2005d) Documents concerning the accession of the Republic of Bulgaria and Romania to the European Union. *OJ*, L157, 21 June, pp. 1-395.

European Union (2012) Consolidated version of the Treaty on European Union [TEU]. *OJ*, C326, 26 October, pp. 13-45.

Eurostat (2018) *Gross nitrogen balance on agricultural land, 2004-2015, kg N per ha UAA*. Available at: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=File:Gross_nitrogen_balance_on_agricultural_land,_2004-2015,_kg_N_per_ha_UAA.png. [Accessed 6 September 2021].

Government of Romania (Guvernul României) (2000) *Plan (A) 13/10/2000 for the protection of waters against nitrate pollution from agricultural sources (Plan de Actiune din 13 octombrie 2000 pentru protectia apelor împotriva poluarii cu nitrati proveniti din surse Agricole).* Available at: http://legislatie.just.ro/Public/DetaliiDocumentAfis/92202 [Accessed 8 September 2021].

Grambow, M. (2021) Interview with Jonas Schmitt at the Bavarian Ministry of the Environment and Consumer Production, 1 July.

ICPDR (1994) *Convention on Cooperation for the Protection and Sustainable Use of the Danube River (Danube River Protection Convention)*, 29 June 1994 in Sofia, Bulgaria.

ICPDR (2001) *Annual Report on Activities of the ICPDR in 2001*. Available at: https://www.icpdr.org/flowpaper/viewer/default/files/ar2001.pdf [Accessed 6 September 2021].

ICPDR (2002) *Joint Danube Survey 1*. Available at: https://www.icpdr.org/main/activities-projects/joint-danube-survey-1 [Accessed 6 September 2021].

ICPDR (2008) *Joint Danube Survey 2*. Available at: http://www.danubesurvey.org/jds2/ [Accessed 6 September 2021].

ICPDR (2009) *Danube River Basin Management Plan (2009)*. Available at: http://www.icpdr.org/main/activities-projects/danube-river-basin-management-plan-2009 [Accessed 6 September 2021].

ICPDR (2015a) *Map 1: DRBD Overview*. Available at: https://www.icpdr.org/flow-paper/viewer/default/files/nodes/documents/drbmp2015-map01-drbd-overview.pdf [Accessed 9 September 2021].

ICPDR (2015b) *Joint Danube Survey 3: A Comprehensive Analysis of Danube Water Quality*. Available at: http://www.danubesurvey.org/jds3/jds3-files/nodes/documents/jds3_final_scientific_report_1.pdf [Accessed 6 September 2021].

ICPDR (2015c) *Danube River Basin Management Plan - Update 2015.* Available at: https://www.icpdr.org/flowpaper/viewer/default/files/nodes/documents/drbmp-update2015.pdf [Accessed 6 September 2021].

ICPDR (2015d) *Danube River Basin Management Plan - Update 2015 (Annexes).* Available at: https://www.icpdr.org/flowpaper/viewer/default/files/nodes/documents/drbmp-update2015-annexes.pdf [Accessed 6 September 2021].

ICPDR (2021a) *About Us*. Available at: https://www.icpdr.org/main/icpdr/about-us [Accessed 6 September 2021].

ICPDR (2021b) *Eutrophication*. Available at: http://www.icpdr.org/main/issues/eutrophication [Accessed 6 September 2021].

ICPDR (2021c) *Joint Danube Survey 4 Scientific Report: A Shared Analysis of the Danube River*. Available at: http://www.danubesurvey.org/jds4/jds4-files/nodes/documents/jds4_scientific_report_20mb.pdf [Accessed 6 September 2021].

ICPDR (2021d) *Danube River Basin Management Plan: Part A – Basin-wide overview. Update 2021 (Draft).* Available at: https://www.icpdr.org/flowpaper/viewer/default/files/nodes/documents/ic231_drbmp_update_2021_draft_v10.pdf [Accessed 10 September 2021].

ICPDR (2021e) *The Nutrients and Drought Issue: Policy Paper on Sustainable Agriculture in the Danube River Basin*. Available at: https://www.icpdr.org/main/sites/default/files/nodes/documents/icpdr_policy_paper_on_sustainable_agriculture.pdf [Accessed 4 April 2022].

ICPDR (2021f) *Danube River Protection Convention*. Available at: https://www.icpdr.org/main/icpdr/danube-river-protection-convention [Accessed 6 September 2021].

ICPDR (2021g) *TNMN - TransNational Monitoring Network*. Available at: http://www.icpdr.org/main/activities-projects/tnmn-transnational-monitoring-network [Accessed 10 September 2021].

IGB (Leibniz-Institute of Freshwater Ecology and Inland Fisheries [IGB] in the Forschungsverbund Berlin e.V.) (2021) *MONERIS*. Available at: https://www.igb-berlin.de/en/moneris [Accessed 6 September 2021].

International Sava River Basin Commission (2008) *History*. Available at: https://www.savacommission.org/history [Accessed 18 September 2021].

Ionescu, C. (2021) Interview with Jonas Schmitt online via Zoom, 28 June.

Jekel, H. (2021) Interview with Jonas Schmitt via phone call, 28 May.

Korck, J. (2021) Interview with Jonas Schmitt at the Bavarian Ministry of the Environment and Consumer Protection, 1 July.

Kovacs, A. (2021) Interview with Jonas Schmitt via Zoom, 10 August.

Melchner, H. (2021) Interview with Jonas Schmitt at the Amt für Ernährung, Landwirtschaft und Forsten Regensburg (Office for Food, Agriculture and Forestry Regensburg), 22 July.

Pernpeintner, L. (2021) Interview with Jonas Schmitt at the Amt für Ernährung, Landwirtschaft und Forsten Regensburg (Office for Food, Agriculture and Forestry Regensburg), 22 July.

StMELF (Bayerisches Staatsministerium für Ernährung, Landwirtschaft und Forsten) and StMUV (Bayerisches Staatsministerium für Umwelt und Verbraucherschutz) (2020), *Cross Compliance 2021: Informationsbroschüre über die einzuhaltenden Verpflichtungen*. München: StMELF and StMUV.

StMUV (Bayerisches Staatsministerium für Umwelt und Verbraucherschutz) (2015) *Umsetzung der EG-Wasserrahmenrichtlinie: Bewirtschaftungsplan für den bayerischen Anteil am Flussgebiet Donau (Bewirtschaftungszeitraum 2016-2021)*. Available at: https://www.lfu.bayern.de/wasser/wrrl/bewirtschaftungsplaene_1621/doc/bewirtschaftungsplan_donau.pdf [Accessed 6 September 2021].

UNECE (1992) *Convention on the Protection and Use of Transboundary Watercourses and International Lakes* [UNECE Water Convention], 17 March 1992 in Helsinki.

UNECE (2001) *Environmental Performance Reviews: Romania.* Environmental Performance Reviews Series, No. 13. New York: United Nations Publication.

United Nations (2014) Convention on the Law of the Non-navigational Uses of International Watercourses 1997 [UN Watercourses Convention], adopted 21 May 1997 in New York, entered into force on 17 August 2014.

VERBI Software (2019) *MAXQDA 2020*. Computer program. Berlin: VERBI Software.

Secondary literature

Aubert, V. (1963) Competition and dissensus: two types of conflict and of conflict resolution. *Conflict Resolution*, 7(1), pp. 26-42.

Baker, S. and Jehlička, P. (1998) Dilemmas of transition: The environment, democracy and economic reform in East Central Europe - an introduction. *Environmental Politics*, 7(1), pp. 1-26.

Baranyai, G. (2020) *European Water Law and Hydropolitics: An inquiry into the Resilience of Transboundary Water Governance in the European Union*. Water Governance – Concepts, Methods, and Practice, Vol. 5. Cham, Switzerland: Springer Nature Switzerland AG.

Bernauer, T. (1997) Managing International Rivers. In: Young, O.R., ed. *Global Governance: Drawing Insights from the Environmental Experience*. Cambridge: The MIT Press, pp. 155-196.

Bernauer, T. and Kalbhenn, A. (2010) *The Politics of International Freshwater Resources*. Oxford Research Encyclopedia of International Studies. New York: Wiley.

Brochmann, M. and Hensel, P.R. (2011) The Effectiveness of Negotiations over International River Claims. *International Studies Quarterly*, 55(3), pp. 859-882.

Brock, L. (1992) Security through Defending the Environment. An Illusion? In: Boulding, E., ed. *New Agendas for Peace Research*. Boulder: Lynne Rienner, pp. 79-102.

Business and Strategy Europe (2015) *Evaluation of PHARE financial assistance to Bulgaria, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia, Slovenia*. Final Evaluation Report, issued on 19/01/2015. Available at: https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/pdf/financial_assistance/phare/evaluation/2015/20150806-phare-ex-post-evaluation-final-report.pdf [Accessed 12 September 2021].

Carius, A., von Homeyer, I. and Bär, S. (2000b) The Eastern Enlargement of the European Union and Environmental Policy: Challenges, Expectations, Speeds and Flexibility. In: Holzinger, K. and Knoepfel, P., eds. *Environmental Policy in a European Union of Variable Geometry? The Challenge of the Next Enlargement.* Oekologie & Gesellschaft, Vol. 13. Basel: Helbing & Lichtenhahn, pp. 141-180.

Carius, A., von Homeyer, I., Bär, S. and Kraemer, R.A. (2000a) *Die umweltpolitische Dimension der Osterweiterung der Europäischen Union*. Materialien zur Umweltforschung, Vol. 34. Stuttgart: Metzler-Poeschel.

Deudney, D. (1991) Muddled Thinking. *Bulletin of the Atomic Scientists*, 47(3), pp. 22-28.

Dinar, S. (2008) *International Water Treaties: Negotiation and Cooperation Along Transboundary Rivers*. Abingdon: Routledge.

Dinar, S. (2009a) Scarcity and Cooperation Along International Rivers. *Global Environmental Politics*, 9(1), pp. 109-135.

Dinar, S. (2009b) Power Asymmetry and Negotiations in International River Basins. *International Negotiations*, 14, pp. 329-360.

Efinger, M., Zürn, M. (1990) Explaining Conflict Management in East-West Relations: A Quantitative Test of Problem-Structural Typologies. In: Rittberger, V., ed. *International Regimes in East-West Politics*. London: Pinter, pp. 64-89.

Elhance, A.P. (1999) *Hydropolitics in the Third World: Conflict and Cooperation in International River Basins*. Washington, D.C.: United States Institute of Peace Press.

Elhance, A.P. (2000) Hydropolitics: Grounds for Despair, Reasons for Hope. *International Negotiations*, 5, pp. 201-222.

Emmert, F. and Petrovi, S. (2014) The Past, Present, and Future of EU Enlargement. *Fordham International Law*, 37(5), pp. 1349-1419.

Fearon, J.D. (1998) Bargaining, Enforcement, and International Cooperation. *International Organization*, 52(2), pp. 269-305.

Ferrier, R.C. and Jenkins, A., eds. (2021) *Handbook of Catchment Management*. 2nd edn. Hoboken, NJ: Wiley-Blackwell.

Gabanyi, A.U. (2003) *Die Landwirtschaft im Prozeß der EU-Integration Rumäniens*. SWP-Studie, S 38 (Stiftung Wissenschaft und Politik: Deutsches Institut für Internationale Politik und Sicherheit). Berlin: Stiftung Wissenschaft und Politik.

Galatchi, L.-D. and Tudor, M. (2006) Europe as a Source of Pollution – The Main Factor for the Eutrophication of the Danube Delta and Black Sea. In: Simeonov, L. and Chirila, E., eds. *Chemicals as International and Accidental Global Environmental Threats*. NATO Security through Science Series, Vol. C (Environmental Security). Dordrecht: Springer, pp. 57-63.

Gherasim, C. (2021) *After China ban, Romania hit by illegal waste imports*. Available at: https://euobserver.com/news/151622 [Accessed 28 August 2021].

Gille, Z. (2007) *From the Cult of Waste to the Trash Heap of History: The Politics of Waste in Socialist and Postsocialist Hungary*. Bloomington: Indiana University Press.

Giordano, M.A. (2003) Managing the Quality of International Rivers: Global Principles and Basin Practice. *Natural Resources Journal*, 43(1), pp. 111-136.

Gleick, P.H. (1993) Water and Conflict: Water Resources and International Security. *International Security*, 18(1), pp. 79-112.

Grabbe, H. (2001) How does Europeanisation affect CEE governance? Conditionality, diffusion and diversity. *Journal of European Public Policy*, 8(4), pp. 1013-1031.

Grabbe, H. (2006) *The EU's Transformative Power: Europeanization through Conditionality in Central and Eastern Europe*. Palgrave Studies in European Union Politics. Basingstoke: Palgrave Macmillan.

Hasenclever, A., Mayer, P. and Rittberger, V. (1996) Interests, Power, Knowledge: The Study of International Regimes. *Mershon International Studies Review*, 40(2), pp. 177-228.

Hensel, P.R., McLaughlin Mitchell, S. and Sowers II, T.E. (2006) Conflict management of riparian disputes. *Political Geography*, 25, pp. 383-411.

Hicks, B. (2005) Setting Agendas and Shaping Activism: EU Influence on Central and Eastern European Environmental Movements. In: Carmin, J. and VanDeveer, S.D., eds. *EU Enlargement and the Environment: Institutional change and environmental policy*

in Central and Eastern Europe. Environmental Politics/Routledge Research in Environmental Politics. Abingdon: Routledge, pp. 216-233.

Holzwarth, F. (2005) Right from the source. Interview with Fritz Holzwarth, Head of the German Delegation to the ICPDR with the magazine "Danube Watch". In: *Danube Watch*, 1/2005. Available at: http://www.icpdr.org/icpdr/static/dw2005_1/dw0105p10.htm. [Accessed 6 September 2021].

Inglis, K. (2010) *Evolving Practice in EU Enlargement: With Case Studies in Agri-Food and Environment Law*. Studies in EU External Relations, Vol. 4. Leiden, The Netherlands: Brill.

Johnson, C. (2012) Toward post-sovereign environmental governance? Politics, scale, and EU Water Framework Directive. *Water Alternatives*, 5(1), pp. 83-97.

Josefsson, H. (2012) Achieving Ecological Objectives. *Laws*, 1, pp. 39-63.

Kalbhenn, A. (2009) *A River Runs Through It: Democracy, International Interlinkages and Cooperation over Shared Resources*. National Center of Competence in Research (NCCR), Working Paper No. 35, Zurich.

Katz, M.N. (2018) Great Powers in the Twenty-first Century. *Horizons: Journal of International Relations and Sustainable Development*, 10, pp. 122-133.

Keessen, A.M., van Kempen, J. and van Rijswick, H.F.M.W. (2008) Transboundary River Basin Management in Europe: Legal Instruments to Comply with European Water Management Obligations in Case of Transboundary Water Pollution and Floods. *Utrecht Law Review*, 4(3), pp. 35-56.

Keohane, R.O. (1969) Lilliputians' Dilemmas: Small States in International Politics. *International Organization*, 23(2), pp. 291-310.

Knudsen, O.F. (1996) Analysing Small-State Security: The Role of External Factors. In: Bauwens, W., Clesse, A. and Knudsen, O.F., eds. *Small States and the Security Challenge in the New Europe*. Brassey's Atlantic Commentaries, Vol. 8. Sterling, VA: Potomac Books, pp. 3-20.

Kochenov, D. (2008) *EU Enlargement and the Failure of Conditionality: Pre-accession Conditionality in the Fields of Democracy and the Rule of Law*. The Netherlands: Kluwer Law International.

Kovacs, A., Zavadsky, I. (2021) Success and sustainability of nutrient pollution reduction in the Danube River Basin: recovery and future protection of the Black Sea Northwest shelf. *Water International*, 46(2), pp. 176-194.

Kupchan, C.A. (1998) After Pax Americana: Benign Power, Regional Integration, and the Sources of a Stable Multipolarity. *International Security*, 23(2), pp. 40-79.

Laffan, B. and Mazey, S. (2006) European integration: The European Union – Reaching an equilibrium? In: Richardson, J., ed. *European Union: Power and Policy-Making*, 3rd edn. Abingdon: Routledge, pp. 31-54.

Lavenex, S. and Schimmelfennig, F. (2011) EU democracy promotion in the neighbourhood: from leverage to governance? *Democratization*, 18(4), pp. 885-909.

LeMarquand, D. (1976) Politics of International River Basin Cooperation and Management. *Natural Resources Journal*, 16(4), pp. 883-901.

Lenschow, A. (2015) Environmental Policy: Contending Dynamics of Policy Change. In: Wallace, H., Pollack, M.A. and Young, A.R., eds. *Policy-Making in the European Union*. 7th edn. The New European Union Series. Oxford: Oxford University Press, pp. 319-343.

Linnerooth, J. (1990) The Danube River Basin: Negotiating Settlements to Transboundary Environmental Issues. *Natural Resources Journal*, 30(3), pp. 629-660.

Liska, I. (2015) Managing an International River Basin Towards Water Quality Protection: The Danube Case. In: Liska, I., ed. (2015) *The Danube River Basin*. The Handbook of Environmental Chemistry, Vol. 39. Berlin: Springer-Verlag, pp. 1-21.

Lowi, M.R. (1993) *Water and power: The politics of a scarce resource in the Jordan River basin*. Updated edition 2003. Cambridge: Cambridge University Press.

Malagó, A., Bouraoui, F., Vigiak, O., Grizzetti, B. and Pastori, M. (2017) Modelling water and nutrient fluxes in the Danube River Basin with SWAT. *Science of the Total Environment*, 603-604, pp. 196-218.

Margesson, R. (1997) Reducing conflict over the Danube Waters: equitable utilization and sustainable development. *Natural Resources Forum*, 21(1), pp. 23-38.

Martin, L.L. (1992) Interests, Power, and Multilateralism. *International Organization*, 46(4), pp. 765-792.

Marty, F. (2001) *Managing International Rivers: Problems, Politics and Institutions. European university studies*, Series XXXI, Vol. 421. Bern: Peter Lang.

Mattli, W. (1999) *The Logic of Regional Integration: Europe and Beyond*. Cambridge: Cambridge University Press.

Müller-Grabherr, D., Florin, M.V., Harris, B., Crilly, D., Gugic, G., Vegter, J., Slob, A., Borowski, I. and Brils, J. (2014) Integrated River Basin Management and Risk Governance. In: Brils, J., Brack, W., Müller-Grabherr, D., Négrel, P. and Vermaat, J.E., eds. *Risk-Informed Management of European River Basins*. The Handbook of Environmental Chemistry, Vol. 29. Berlin: Springer-Verlag, pp. 241-264.

Neumann, I. and Gstöhl, S. (2004) *Lilliputians in Gulliver's world: Small States in International Relations*. Centre for Small State Studies Working Paper, Reykjavik.

Nikolova, P. (2006) *Negotiating for EU Membership? The Case of Bulgaria and Romania*. Croatian Yearbook of European Law and Policy, 2(2), pp. 393-412.

Ostrom, E. (1990) *Governing the Commons: The Evolution of Institutions for Collective Action*. The Political Economy of Institutions and Decisions. Cambridge: Cambridge University Press.

Pedersen, T. (2002) Cooperative hegemony: power, ideas and institutions in regional integration. *Review of International Studies*, 28, pp. 677-696.

Popovici, M. (2015) Nutrient Management in the Danube River Basin. In: Liska, I., ed. *The Danube River Basin*. The Handbook of Environmental Chemistry, Vol. 39. Berlin: Springer-Verlag, pp. 23-38.

Powell, R. (1991) Absolute and Relative Gains in International Relations Theory. *The American Political Science Review*, 85(4), pp. 1303-1320.

Pridham, G. (2005) *Designing Democracy: EU Enlargement and Regime Change in Post-Communist Europe*. Basingstoke: Palgrave Macmillan.

Rieu-Clarke, A. (2006) An Overview of Stakeholder Participation Within the Danube Basin: What Current Practice and Future Challenges? In: Earle, A. and Malzbender, D., eds. *Stakeholder Participation in Transboundary Water Management – Selected Case Studies*. Inwent Capacity Development Programme: IMWRM in Shared River Basins in the SADC Region. Cape Town, South Africa, pp. 81-95.

Rittberger, V. and Zürn, M. (1991) Findings from the Study of "East-West Regimes". *Cooperation and Conflict*, 16, pp. 165-183.

Schimmelfennig, F. (2006) The process of enlargement: Problems, interests, and norms. In: Richardson, J., ed. *European Union: Power and policy-making*. 3rd edn. pp. 207-224.

Schimmelfennig, F. and Sedelmeier, U. (2005) Introduction: Conceptualizing the Europeanization of Central and Eastern Europe. In: Schimmelfennig, F. and Sedelmeier, U., eds. *The Europeanization of Central and Eastern Europe*. Cornell Studies in Political Economy. Ithaka, NY: Cornell University Press, pp. 1-28.

Schmeier, S. (2013) *Governing International Watercourses: River Basin Organizations and the Sustainable Governance of Internationally Shared Rivers and Lakes*. Earth Scan Studies in Water Resource Management. Abingdon: Routledge.

Scott, E. (2021) *Is Romania Europe's New Dumping Ground*. Available at: https://www.tyreandrubberrecycling.com/latest-news/posts/2021/may/romania-europes-waste-dump/ [Accessed 28 August 2021].

Sedelmeier, U. (2010) Enlargement: From Rules for Accession to a Policy Towards Europe. In: Wallace, H., Pollack, M.A. and Young, A.R., eds. Policy-Making in the European Union. 6th edn. The New European Union Series. Oxford: Oxford University Press, pp. 401-429.

Sedelmeier, U. (2015) Enlargement: Constituent policy and tool for external governance. In: Wallace, H., Pollack, M.A. and Young, A.R., eds. *Policy-Making in the European Union*, 7th edn. The New European Union Series. Oxford: Oxford University Press, pp.407-435.

Sedelmeier, U. and Wallace, H. (2000) Eastern enlargement: strategy or second thoughts? In: Wallace, H. and Wallace, W., eds. *Policy-Making in the European Union,* 4th edn. The new European Series. Oxford: Oxford University Press, pp. 427-460.

Shepherd, K. (2014) Targets for all Danube countries to meet: implementing EU legislation. *Danube Watch*, 1/2014, pp. 10-11. Available at: https://www.icpdr.org/flowpaper/viewer/default/files/nodes/documents/dw2014_1.pdf [Accessed 20 September 2021].

Snidal, D. (1985) Coordination versus Prisoners' Dilemma: Implications for International Cooperation and Regimes. *The American Political Science Review*, 79(4), pp. 923-942.

Stefano, L.D., Duncan, J.A., Dinar, S., Stahl, K., Strzepek, K. and Wolf, A. (2012) Climate change and the institutional resilience of international river basins. *Journal of Peace Research*, 49, pp. 193 - 209.

Stefano, L.D., Edwards, P., de Silva, L. and Wolf, A.T. (2010) Tracking cooperation and conflict in international basins: historic and recent trends. *Water Policy*, 12, pp. 871-884.

Thorhallsson, B. (2000) *The Role of Small States in the European Union*. Aldershot: Ashgate.

Thorhallsson, B. and Wivel, A. (2006) Small States in the European Union: What Do We Know and What Would We Like to Know? *Cambridge Review of International Affairs*, 19(4), pp. 651-668.

Tir, J. and Ackerman, J.T. (2009) Politics of Formalized River Cooperation. *Journal of Peace Research*, 46(5), pp. 623-640.

Torreblanca, J. (2001) *The Reuniting of Europe: Promises, Negotiations, and Compromises*. Aldershot: Ashgate.

Underdal, A. (2002) One Question, Two Answers. In: Miles, E.L., Underdal, A., Andresen, S., Wettestad, J., Skærseth, J.B. and Carlin, E.M., eds. *Environmental Regime Effectiveness: Confronting Theory with Evidence*. Cambridge: The MIT Press, pp. 3-46.

Utton, A.E. (1973) International Water Quality Law. *Natural Resources Journal*, 13(2), pp. 282-314.

van Rijswick, H.F.M.W. (2008) *Moving Water and the Law: On the Distribution of Water Rights and Water Duties within River Basins in European and Dutch Water Law*. Inaugural address, Utrecht University.

Verdery, K. (2003) *The Vanishing Hectare: Property and Value in Postsocialist Transylvania*. Culture Society after Socialism. Ithaka, NY: Cornell University Press.

Vinten, A. (2021) Diffuse Pollution Management. In: Ferrier, R.C. and Jenkins, A., eds. *Handbook of Catchment Management*. 2nd edn. Hoboken, NJ: Wiley-Blackwell, pp. 153-182.

Voulvoulis, N., Arpon, K.D. and Giakoumis, T. (2017) The EU Water Framework Directive: From great expectations to problems with implementation. *Science of the Total Environment*, 575, pp. 358-366.

Weller, P. (2010) The Danube River – The Most International River Basin. In: Ferrier, R.C. and Jenkins, A., eds. *Handbook of Catchment Management*. Hoboken, NJ: Wiley, pp. 287-302.

Wolf, A.T., Shira, B.Y. and Giordano, M. (2003) International waters: identifying basins at risk. *Water Policy*, 5, pp. 29-60.

Zürn, M. (1992) *Interessen und Institutionen in der internationalen Politik: Grundlegung und Anwendungen des situationsstrukturellen Ansatzes*. Opladen: Leske + Budrich.

Appendix: List of Interviews

Arzet, K. (2021) Head of the National and International River Basin Management Division in the Bavarian Ministry of the Environment and Consumer Protection. Video call interview, 18 June.

Brandner, J. (2021) Head of the Water Supervision Department at Wasserwirtschaftsamt Regensburg (Water Management Office Regensburg). Personal interview, 29 June, Regensburg, Germany.

Grambow, M. (2021) Head and Director General of the Water Management and Soil Conservation Department in the Bavarian Ministry of the Environment and Consumer Protection. Personal interview, 1 July, Munich, Germany.

Ionescu, C. (2021) Freshwater project manager at WWF Romania. Video call interview, 28 June.

Jekel, H. (2021) Head of Division "Cooperation in International River Basins, Water Management Conventions, International Water Protection Law" in the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety. German Head of Delegation to the ICPDR. Phone call interview, 28 May.

Korck, J. (2021) Senior civil servant of the National and International River Basin Management Division in the Bavarian Ministry of the Environment and Consumer Protection. Chair of the ICPDR River Basin Management Expert Group. Personal interview, 1 July, Munich, Germany.

Kovacs, A. (2021) Technical expert for pollution control of the ICPDR Permanent Secretariat. Video call interview, 10 August.

Melchner, H. (2021) Head of the Amt für Ernährung, Landwirtschaft und Forsten Regensburg (Office for Food, Agriculture and Forestry Regensburg). Personal interview, 22 July, Regensburg, Germany.

Pernpeintner, L. (2021) Nutrient and soil expert of the Amt für Ernährung, Landwirtschaft und Forsten Regensburg (Office for Food, Agriculture and Forestry Regensburg). Personal interview 22 July, Regensburg, Germany.

Representative of the Romanian Directorate for Water Resources Management in the Romanian Ministry of Environment, Water and Forests.
Video call interview, 4 June 2021.

Eidesstattliche Erklärung

Hiermit versichere ich, dass ich die Arbeit selbstständig verfasst und keine anderen Hilfsmittel als die angegebenen dazu verwendet habe. Alle Stellen in der Arbeit, die anderen Werken dem Wortlaut oder dem Sinn nach entnommen sind, wurden unter Angabe der Quelle als Entlehnung kenntlich gemacht. Die Versicherung der selbstständigen Anfertigung bezieht sich auch auf die eingebundenen Tabellen, Zeichnungen, Kartenskizzen und bildliche Darstellungen. Ferner versichere ich, dass die Arbeit noch nicht an anderer Stelle (auch nicht Auszüge) als wissenschaftliche Arbeit eingereicht wurde.

Regensburg, 20. September 2021

[Ort, Datum] Jonas Schmitt