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## **Legal Aspects of Transboundary River Pollution in the Carpathian Basin**

*a case study of the Hungarian approach to protect the Tisza and the Rába rivers*

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## I. INTRODUCTION

Transboundary water pollution is a vital problem in most of the world's river basins. Long rivers such as the Danube flow across two or more countries, linking them strongly together.<sup>1</sup> As a consequence, the water of these rivers becomes a shared resource of riparian countries from which they all want to benefit, but their position to access this shared resource is not equal. Downstream countries are in a disadvantaged position, as their access to clean water largely depends on the behaviour of upstream countries.

The graveness of the situation lies in the particular importance of clean water. Clean water provides many services, some of which are essential for life, such as drinking water.<sup>2</sup> The biggest challenge riparian countries face is managing the common water resources equitably and sustainably, taking into account the interests of all riparian states involved.<sup>3</sup> The problems to be solved are plenty, including water quantity issues (such as flood risks or water scarcity due to droughts) on the one hand and water quality issues (arising from various sources of pollution) on the other hand.<sup>4</sup>

This study will address the water quality problems of transboundary water management from a legal perspective and will take the point of view of a downstream country, namely Hungary, to present how exposed such a country is to the behaviour of its upstream neighbours and how it can protect its waters from pollution by legal means.

Accordingly, the study will seek an answer to the following research question: ***To what extent do international law and European law<sup>5</sup> contribute to the protection of the rivers of Hungary from transboundary pollution caused by industrial activities?***

Even though the problem of transboundary river pollution is serious everywhere, this study will take a local focus and examine the topic from the perspective of Hungary. This local approach allows the study to take into account the local characteristics and analyze the issue in greater depth. This however does not mean that the findings of the research cannot be applied to other river basins. On the contrary, one can find other river basins with the exact same problems - and a very similar legal situation. For example, the position of the Netherlands in the Rhine basin shows several similarities with Hungary's situation (both in geographical and legal position) resulting from the fact that both countries (and most of their polluting fellow-riparian states) are bound by the regulation of the European Union and they both ratified the relevant international conventions.

The reasons behind the choice to investigate the problem from Hungary's perspective are twofold.

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<sup>1</sup> According to the World Water Assessment Program there are 263 international basins, two third of which covers the territory of more than two countries. [www.drinking-water.org](http://www.drinking-water.org) Introduction > Sources > Shared Resources.

<sup>2</sup> [www.drinking-water.org](http://www.drinking-water.org).

<sup>3</sup> Ministerial Declaration, International Conference on Freshwater (2001); See also: Agenda 21 Chapter 18.4.

<sup>4</sup> [www.ec.europa.eu/environment/water](http://www.ec.europa.eu/environment/water).

<sup>5</sup> When this study uses the term European law, it means the law of the European Community.

- Firstly, its geographical location make it a perfect example of how much a downstream country can be exposed to the behaviour of the upstream riparian states.
- Secondly, in the last few years Hungary has unfortunately suffered a lot from the pollution of two of its main rivers by upper riparian states, offering a great opportunity to view the problem through tangible examples. The first one is the accidental cyanide spill to the Tisza river from a Romanian gold mine in 2000, the second one is the continuous pollution of the river Rába with hazardous substances by Austrian leather factories.

The scope of the study will be limited to pollution caused by industrial installations to rivers directly. Problems related to e.g. pollutants seeping into groundwaters as a result of waste disposal on land are outside of the scope of the study. Pollution from industrial installations can be classified into two categories. The first category is pollution which takes place continuously, from the ordinary operation of the installations, for example through releasing waste water into the rivers (as happened with the Rába). The second category is the extraordinary pollution of waters as a consequence of accidents, when high concentrations of pollutants (often hazardous substances) are released into the water in a short period of time (as happened with the Tisza).<sup>6</sup>

To answer the research question, and to put the Rába and the Tisza cases in perspective, the following sub-questions will be answered:

- *What are the international and European legal requirements relevant to the protection of the quality of waters, and what is their significance for the cited cases of the Rába and the Tisza?*
- *To what extent do Danubian countries cooperate to protect the rivers in the river basin?*
- *What is the significance of the river basin approach for the protection of rivers in Hungary?*
- *How can a downstream country such as Hungary find remedy if cooperation fails and pollution originating in another country cause damage in its territory?*

Keeping with the logic of the sub-questions, the study will first explain the notion of sustainable development and sustainable use of water, then set out the essence of a river basin concept, and continue with a brief description of geographical aspects of the region, and will present the two example cases. (Chapter II).

The study will then analyse the relevant international and European legal instruments, to establish the current standards riparian states have to meet, and to examine whether these standards are respected by the riparian states. Subsequently, it will take a local perspective and review what the legal steps are that Hungary has taken, or still has to take, in order to fulfill its international obligations. This legal analysis will be carried out on two levels (Chapter III):

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<sup>6</sup> Faragó, Kocsis-Kupper (2000) p. 6.

- First, the legal instruments of international law will be analysed, focusing partly on the international legal principles (both substantive and procedural) that are or maybe considered as customary international law, and partly on conventional law.
- Second, the relevant legal instruments of the European Union will be analysed, whereby special attention will be paid to the Water Framework Directive<sup>7</sup> which has established a framework for an integrated water management in Europe.<sup>8</sup>

Following this, the actual cooperation between the riparian states in the Danube river basin to implement their legal obligations, and their efforts to cooperate in protecting the rivers even without a legal obligation will be studied (Chapter IV).

In Chapter III and IV the study will address the river basin approach and discuss to what extent it is reflected by the studied legal instruments, and how it promotes the cooperation by riparian states.

Subsequently, the study will concentrate on the negative side of the question: what if riparian countries do not comply with the legal requirements and pollution takes place, and how can a downstream country (in this case Hungary) find remedy following such pollution? To this end the study will analyze what kind of damage can be caused to a downstream country by transboundary industrial pollution, which can be held accountable for the damage, what kind of remedy can be found, and what are the procedural implications of seeking for remedy (Chapter V). These questions will be examined in two different relations. Firstly, the state versus state relation will show how Hungary can stand against polluting upstream states. Secondly, the state versus polluting company relation will be studied with the help of international private law. In this section, special attention will be paid to the ongoing case before the County Court of Budapest on the cyanide pollution of the river Tisza between the Republic of Hungary and the polluting mining company. The study will only deal with the claims of the state itself; it will not discuss how private persons can find remedy.

Finally, the study will conclude by answering the research question based on its findings.

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<sup>7</sup> Water Framework Directive 2000/60/EC.

<sup>8</sup> [www.europa.eu.int](http://www.europa.eu.int) > European Commission > Environment > Water > Water Framework Directive.

## II. THE PROBLEM OF TRANSBOUNDARY RIVER POLLUTION

### II.1. The notion of sustainable development

#### A new approach

When discussing transboundary river pollution, it is inevitable to introduce the concept of sustainable development, which became almost universally recognised during the last few decades.<sup>9</sup>

The novelty of the sustainable development approach compared to previous approaches aiming to protect the environment, is that it places the environment in a wider concept. It recognizes that the reason natural resources are under increasing pressure around the world is that while humans strive to achieve economic growth and improve the quality of life, they use natural resources to an extent which exceeds the carrying capacity of the Earth.<sup>10</sup> This does not mean that sustainable development condemns development as such. On the contrary, it acknowledges that economic and social development are vital to improve the quality of life,<sup>11</sup> but stresses that the environment should not be sacrificed for this development.

Consequently, sustainable development is based on three pillars: the economy, the society and the environment. The challenge of international policy making is to find the right balance between these elements. Clearly, transboundary industrial river pollution can disturb this balance, as it degrades the quality of the rivers causing harm to the environment of multiple countries. To what extent this is acceptable in the interest of the economic development depends on many factors, and has to be determined by the policy makers.

#### The way to its prevalence

Sustainable development is still a relatively new concept. It emerged in the second half of the 20<sup>th</sup> century. In 1972, realising that urgent action was needed, the UN General Assembly convened the Stockholm Conference on the Human Environment. The conference resulted *inter alia* in the adoption of the Stockholm Declaration of Principles (Stockholm Declaration), which contained guiding principles on the protection of the environment.<sup>12</sup> The Stockholm Declaration on the one hand drew upon the already existing principles of international law, such as the no harm principle, but on the other hand also comprised new elements pointing towards sustainable development. For example, it proclaimed that water as a natural resource of the Earth must be safeguarded through careful planning and management for

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<sup>9</sup> Rieu-Clarke (2005) p. 2.

<sup>10</sup> *Ibid* p. 3.

<sup>11</sup> Stockholm Declaration (1972), Principle 8.

<sup>12</sup> Other outcomes of the conference were the UN Environmental Programme, the adoption of an Action Plan for the development of environmental policy and an Environmental Fund. See Birnie and Boyle (2009) p. 48-49.

present and future generations.<sup>13</sup> It also recognized that economic and social development is essential for improving the quality of life of people.<sup>14</sup>

The notion of sustainable development was defined by the Brundtland Report of the World Commission on Environment and Development in 1987 as a development that “*meets the needs of the present without compromising the ability of future generations to meet their own needs*”.<sup>15</sup>

The next main step towards introducing the concept of sustainable development to international law was the Earth Summit held in December 1992 in Rio de Janeiro, which aimed to discuss the main problems of environmental protection and economic development. It led – among other important agreements<sup>16</sup> – to the adoption of *Agenda 21*, an action plan to achieve sustainable development in the 21<sup>st</sup> century and the Rio Declaration on Environment and Development (Rio Declaration), which contained principles on achieving sustainable development in the future.

Agenda 21 promotes the integrated management of water resources, because water is a natural resource on the one hand but a social and economic good on the other, constituting an integral part of the ecosystem. It also recognises that the quality and the quantity of the water determines its utilization, therefore water resources have to be protected. To reach these targets, management measures should be planned and implemented on a catchment basin or sub-basin level.<sup>17</sup>

Today, the concept of sustainable development is widely accepted and constitutes a central issue on virtually all policy agendas.

## **II.2. Sustainable use of water**

Water, one of the most precious natural resources on Earth is under pressure, among others due to the discharge of pollutants resulting from human activities. This pollution poses a serious threat to water as a natural resource, often rendering it insufficient for satisfying human and environmental needs. This necessitates endeavours towards sustainable development.

Industries are a major source of river pollution. According to the UNESCO, the industrial sector worldwide produces 300-500 million tons of waste each year, which after certain treatment is released into the natural water system,<sup>18</sup> severely negatively impacting on economy, society and ecology.

The significance of the problem of transboundary river pollution comes from the importance of clean water. Clean water is an essential element of life, for humans and all other living

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<sup>13</sup> Stockholm Declaration (1972) Principle 2.

<sup>14</sup> Stockholm Declaration Principle 1, 8.

<sup>15</sup> World Commission on Environment and Development (1987) paragraph 43 (World Commission on Environment and Development: Our Common Future (Oxford University Press).

<sup>16</sup> The Earth Summit also adopted the Statement of Forest Principles, the United Nations Framework Convention on Climate Change and the United Nations Convention on Biological Diversity.

<sup>17</sup> Agenda 21. Chapter 18. 8-9.

<sup>18</sup> [www.unesco.org/water/iyfw2/water\\_use.shtml](http://www.unesco.org/water/iyfw2/water_use.shtml).



organisms in the ecosystem. It is not substitutable, as there is no other substance which could maintain life and replace water when it is not available anymore. Every human needs clean and fresh water, not only for drinking, but also for cooking and sanitation. Further, certain production processes also depend on clean water. Agricultural food production for instance uses water for the irrigation of agricultural crops and watering of live stocks. The quality of water in these cases can have significant effects on human health.<sup>19</sup> The economy of riparian countries often largely depends on clean water as it is used for irrigation of agricultural crops, feeding farm animals, fishing, attracting tourists etc. Pollution of the rivers can cause serious harm in such economies resulting in a decrease in income. The social side of this problem is increasing poverty in the affected regions.<sup>20</sup> An even more important social impact can be the damage caused to the health of people.<sup>21</sup> Moreover, pollution can have serious degrading impact on the environment (both on flora and fauna).

In order to ensure that clean water is sufficiently available for the present and future generations, water resources must be used sustainably. Sustainable use implies that the natural resource is used in a way which reduces neither quantity nor quality. In the case of water, this means that the exploitation of the resource should not result in water scarcity on the one hand, and it should not threaten the environment or the quality of human life by degrading its quality on the other hand.<sup>22</sup> This latter element will be discussed in this study.

Keeping waters clean is by no means easy, because even though water resources are renewable, this recharge is not immediate. Waters in riverbeds renew in general every 16 days, whereas the renewal of groundwater can take hundreds of thousands of years. Therefore sustainable use of waters involves such human uses which do not endanger the natural renewal of the resource.<sup>23</sup>

### **II.3. River Basin Concept**

Transboundary river pollution is a complex issue because rivers do not stand on their own but constitute a part of a bigger system, the so-called river basin.

A river basin can be defined as an interconnected system of rivers which flow towards one single outlet.<sup>24</sup> This interconnectiveness means that any interaction with one element of the system will have an impact on the whole system. The interactions can be either natural or human induced.<sup>25</sup> An example of natural interaction is when climate conditions (thawing snow or high precipitation) in one region of the basin cause the increase of water load of the rivers of that region. The whole river-system in the basin has to adjust to this change in conditions by increasing its rate of flow in order to drain the water towards the outlet of the

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<sup>19</sup> World Water Day, (2007) p.10.

<sup>20</sup> The two cases presented by the study (see section II.5 and II.6. of this study) will bring examples for such negative socio-economic consequences. See also: Vári *et al.* (2003) p. 33.

<sup>21</sup> [www.who.int](http://www.who.int) > Programmes and projects > Water Sanitation and Health (WSH) > industrial pollution.

<sup>22</sup> Natural Resources Strategy (2003) Section 3.2. Policy responses.

<sup>23</sup> Alistair S. Rieu-Clarke (2004) p. 559.

<sup>24</sup> Teclaff (1967) p. 14.

Alistair S. Rieu-Clarke (2004) p. 560.

<sup>25</sup> Teclaff (1996) p. 360.

river basin.<sup>26</sup> Human induced interactions have similar effects. Industrial pollution is a good example, as the release of pollutants into any river of the system will have a negative impact on the water quality of the whole system downstream.

This interconnectiveness requires an approach which deals with the river basin as a whole instead of with the rivers individually. Managing the entire river basin as one unit often requires international cooperation, as many of the river basins cover the territory of more countries. Upstream and downstream countries therefore have to strive to align their interests and manage their waters in an integrated way. The river basin approach covers both the quantitative and qualitative management of the river basin. This study however focuses only on the qualitative aspects.

A good example for such management is the cooperation of the riparian countries in the Danube basin under the 2004 Danube Protection Convention where – as will be discussed later – the riparian states have to prepare comprehensive river basin management plans for the whole basin in order to achieve good water quality required by European law.<sup>27</sup>

The river basin approach is widely accepted in international and European law, which is reflected by the relevant legal instruments examined by this study as well. Nevertheless, the terminology used by these instruments show certain differences. The 1997 UN Convention on the Law of Non-Navigational Uses of International Watercourses uses the term ‘*watercourse*’ defined as “*a system of surface waters and ground waters constituting by virtue of their physical relationship a unitary whole and normally flowing into a common terminus.*”<sup>28</sup> The definition of the watercourse is thus very similar to the definition of the river basin. The 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes uses the term watercourse in its title and preamble but does not define it. Meanwhile the 2004 Danube Protection Convention uses both the terms ‘river basin’ and ‘catchment area’. The catchment area of the Danube is defined as “*the hydrological river basin as far as it is shared by the Contracting Parties*”.<sup>29</sup> Thus the ‘river basin’ is a scientific term, while the ‘catchment area’ is its legal equivalent reduced to the territory of the contracting parties.

#### **II.4. Description of the region**

The Republic of Hungary is situated in Central Europe and has a land area of 93,000 square kilometers. Its neighbours are Austria, Slovenia, Croatia, Serbia, Romania, Ukraine, and Slovakia. Austria, Slovenia, Slovakia and Romania, just like Hungary are members of the European Union.<sup>30</sup>

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<sup>26</sup> *Ibid.*

<sup>27</sup> [www.icpdr.org](http://www.icpdr.org) > Issues > River Basin Management.

<sup>28</sup> Article 1.1.

<sup>29</sup> Article 1b.

<sup>30</sup> Slovenia, Slovakia and Hungary became members on 1 May 2004, whereas Romania joined the EU on 1 January 2007.

[www.europa.eu](http://www.europa.eu) > The EU at a glance > The history of the European Union > 2000 - today, A decade of further expansion.

Hungary is surrounded by high mountain ranges, the Carpathes on the North and North East and the Alps on the West. The low lying area surrounded by these mountain ranges is called the Carpathian or Pannonian Basin. Hungary's entire territory lies within this basin, with more than two thirds of its land lying lower than 200m elevation.<sup>31</sup>

The low-lying nature of Hungary determines the hydrography of the country. Being situated in a basin results in a centripetal water system, meaning that plenty of rivers cross Hungary's territory, most of them springing in the high mountains of the neighbouring countries or even further away.<sup>32</sup> 96% of Hungary's surface waters spring outside the country.<sup>33</sup> The major transboundary rivers crossing Hungary are the Danube, the Tisza, the Dráva and the Rába, all of which have several tributaries.

The Danube is Europe's second longest river with a total length of 2850 km.<sup>34</sup> It springs in the Black Forest in Germany, and after flowing through Austria, Slovakia, Hungary, Croatia, Serbia, it forms the border of Romania and Bulgaria, then it turns North to Romania, and it eventually reaches the Black Sea through a Romanian Ukrainian delta.<sup>35</sup>

The river has numerous tributaries, together constituting the Danube river basin which covers a total area of 801,463 km<sup>2</sup>. Beside the riparian countries, the river basin covers part of the territory of Poland, the Czech Republic, Switzerland, Italy, Slovenia, Bosnia Herzegovina, Montenegro, Albania, Macedonia, Moldova, making it the world's most international river basin.<sup>36</sup>



**Figure 1 – The major rivers of Hungary**

The Tisza river is 966 km long, with 75% of its length lying in Hungary, making it the second longest river of country, and it is also the longest tributary of the Danube.<sup>37</sup>

The Rába river is 322 km long, springs in Styria, Austria and enters Hungary in the southwest, after which it turns to the North and reaches the Danube at Győr.<sup>38</sup>

<sup>31</sup> [www.fsz.bme.hu/mtsz/szakmai/tvok05.htm](http://www.fsz.bme.hu/mtsz/szakmai/tvok05.htm).

<sup>32</sup> Balogh (1997) p.15-20.

<sup>33</sup> [www.kvvm.hu](http://www.kvvm.hu) > vízügy > folyóinkkal való gazdálkodás.

<sup>34</sup> The largest river is the Volga with a total length of 3700 km. See: [www.worldatlas.com](http://www.worldatlas.com).

<sup>35</sup> [www.worldatlas.com/webimage/countrys/euriv.htm](http://www.worldatlas.com/webimage/countrys/euriv.htm), [www.learn.hu/waters/kulso\\_oldalak/danube2.htm](http://www.learn.hu/waters/kulso_oldalak/danube2.htm).

<sup>36</sup> [www.icpdr.org](http://www.icpdr.org) > River Basin > MAP 1.

<sup>37</sup> Dévai *et al.* (2005) p.349; [www.icpdr.org](http://www.icpdr.org) > River Basin > Tisza Basin.

<sup>38</sup> [www.kislexikon.hu](http://www.kislexikon.hu) > Rába.

## II.5. Cyanide spill in the Tisza region

### The accident

In January 2000, the Somes and Tisza rivers experienced the largest environmental disaster in Europe since the Chernobyl accident in 1986.<sup>39</sup> The tailings dams of the Aurul gold mine in Baia Mare, Romania, under severe weather conditions spilled 100,000 cubic meters of water heavily contaminated with cyanide, zinc, copper and other heavy metals into the Lapus river, a tributary of the Somes river.<sup>40</sup> The day following the spill, the cyanide concentration in the Hungarian part of the Somes river was 32.6 mg/litre, which is 300 times higher than the acceptable limit.

The pollution followed the natural way of drainage and emptied first into the Tisza river, then into the Danube and eventually into the Black Sea.

The western-central part of Romania is rich in mineral resources, such as gold.<sup>41</sup> The technology of gold mining uses cyanide-leaching technology to extract the gold particles from low-grade ore.<sup>42</sup> The slurry of most of the left over materials (called tailings) including cyanide and other toxic substances is pumped for storage into a tailings pond, surrounded by dams built out of the solid materials that remain after the extraction. It is an economic but not a safe way of storing the toxic materials.<sup>43</sup>



Figure 2 - The route of the pollution

A working group set up by the United Nations, and the Baia Mare Task Force established by the European Union, later concluded that the spill was caused by poor design and construction of the dams, the inadequate operation, monitoring and maintenance of the dams, and bad weather conditions.<sup>44</sup>

The Baia Mare gold mine was operated by Aurul SA, a joint venture between the Romanian State Mining Agency (Remin SA) (50%), the Australian company Esmeralda Exploitation (45%), and a number of local Romanian companies and individuals (5%).<sup>45</sup>

<sup>39</sup> REC Bulletin (2000) p.16,18; Hudson (2001) p. 374.

<sup>40</sup> REC (2000) p. 3.

<sup>41</sup> [www.infomine.com/countries/romania.asp](http://www.infomine.com/countries/romania.asp) > Romania at glance; REC Bulletin (2000) p. 18.

<sup>42</sup> Cyanide is one of the materials most dangerous to living, because it easily compounds with all heavy metals.

<sup>43</sup> Hudson (2001) p. 369-371.

<sup>44</sup> UNEP/OCHA Report p. 47; Baia Mare Task Force Report (2000) p. 12.

<sup>45</sup> *Ibid* p. 18.

## **The damage**

The pollution affected approximately 2000 kilometers of the Danube river basin and caused enormous environmental damage.<sup>46</sup> Swift intervention by the authorities helped avoid human victims, but the rivers' ecosystems were seriously damaged.

### Ecological impacts

The most visible and immediate consequence of the accident was the enormous loss of wildlife. In the Somes and in the upper Tisza all plankton was wiped out as the pollution passed by, while in the lower reaches 30-60% of plankton did not survive.<sup>47</sup> Fish populations suffered severely, as 100 metric tons of dead fish was cleaned out of the Tisza river (certain native endangered species such as the Danube salmon were eliminated by the spill and never recovered).<sup>48</sup> Birds and mammals drinking from the water or feeding on the polluted fish also fell victim to the catastrophe, although their natural ability to sense the cyanide in the water and the fact that parts of the rivers affected were frozen at the time helped avoid more damage.<sup>49</sup>

The natural recovery process began swiftly. Plankton, molluscs, benthic organisms, and finally fish, gradually returned with the help of the tributary rivers that were not affected, followed by birds and mammals.<sup>50</sup> Today, nine years after the accident, although the Somes and Tisza rivers largely appear to have recovered, it is clear that the spill has caused irreversible or enduring damages. The final loss of endangered species from the rivers, and the bioaccumulation of heavy metals in the ecosystem (transfer between organisms by feeding or procreation) are the two main, still remaining environmental consequences of the spill.

### Economic impacts

The accident caused serious economic loss in Hungary. The most significant damage was done to the fisheries sector: commercial fishing, the most important source of income for the region, was virtually impossible in the year of the spill, and the quality and quantity of fish in later years was severely affected in the following years.<sup>51</sup>

The tourism sector (mainly fishing and canoeing) also suffered. In the years following the accident, many tourists stayed away, resulting in major loss of income for those involved in the tourism sector.<sup>52</sup>

In all, the direct economic damage including the early response actions, the losses for the fisheries sector and the tourism sector, and the costs of marketing aimed at mitigating the

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<sup>46</sup> Hudson (2001) p. 367.; REC Bulletin (2000).

<sup>47</sup> Baia Mare Task Force Report (2000) p. 13.

<sup>48</sup> Schwabach (2002) p. 141; Baia Mare Task Force Report (2000) p. 14.

<sup>49</sup> *Ibid.*

<sup>50</sup> *Ibid* p. 13-15.

<sup>51</sup> Baia Mare Task Force Report (2000) p. 16; Prommer-Skwarek (2001) p. 9.

<sup>52</sup> Váry *et al.* (2003) p. 35.

damage is estimated to be between 11,4 million and 15 million US Dollar, excluding the damage caused by potential investments not realised as a result of the accident.<sup>53</sup>

### Social impacts

The economic losses in the region triggered social problems. The area, always one of the least developed parts of the country, saw unemployment rates rise even further.<sup>54</sup>

Furthermore, the spill constituted an emotional loss for the Hungarians, as the Tisza river has always constituted a significant part of Hungarian culture, its beauty inspiring many poets and writers during the centuries.<sup>55</sup> The emotions were illustrated for example by the black flags displayed on city halls, the widely publicised public funeral of the river, and a friendly football game between Hungary and Australia where the spectators threw dead fish onto the field.<sup>56</sup>

### **The Baia Borsa accident**

In March 2000, just a few weeks after Baia Mare, in Baia Borsa (Romania) 20,000 tonnes of mud contaminated with heavy metals spilled into the Viseu river, another tributary of the Tisza, causing further ecological damage and hindering the regeneration of the Tisza.<sup>57</sup>

## **II.6. Foaming of the Rába river**

### **The pollution**

The Rába river is one of the most natural and free-flowing rivers in Hungary, providing habitat for many varieties of flora and fauna. More than half of its Hungarian reach is preserved in its natural state. The upper Rába region until Sárvár attracts many tourists who visit the region for recreation, fishing or white-water canoeing.<sup>58</sup>

In November 2001, foam from an unidentified origin appeared on the water. From January 2002, the foam became an everyday phenomenon, with pauses during the Christmas and summer holidays, triggering many debates on what the possible cause of the pollution. In 2003, environmental authorities found that the pollution was caused by a chemical called naphthalene-1.5-disulphonate, used for the processing of animal furs in nearby Austrian leather factories.<sup>59</sup>

The pollution caused the foaming of the river for seven years until in 2008 two of the three polluting factories started to build a filtering system which could prevent the pollutants from entering the Rába.<sup>60</sup>

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<sup>53</sup> *Ibid.*

<sup>54</sup> Prommer-Skwarek (2001) p. 28; Vári *et al.* (2003) p. 33.

<sup>55</sup> Miro Kiss (2000).

<sup>56</sup> REC Bulletin p. 20.

<sup>57</sup> *Ibid* p. 22-23.

<sup>58</sup> [www.kerekerdo.org](http://www.kerekerdo.org) > természetvédelem > A Rába-mente természeti értékei; Olajos (2008).

<sup>59</sup> *Ibid.*

<sup>60</sup> [www.delmagyar.hu](http://www.delmagyar.hu) > Belföld - Magyarország hírei > Még mindig sok szennyező anyag kerül a Rábába a bőrgyárakból.

## **The damage**

### Ecological impacts

The chemical used in Austria (naphthalene-1,5-disulphonate) is not naturally present in natural waters. It is uncertain whether it poses risks to human health, and appears to threaten fish populations only if a high concentration is present in the water.<sup>61</sup> Algae and smaller animals in the bottom of the food chain, however, can perish from the pollution, and did so on this occasion, resulting in the loss of food for fish and birds, forcing them to migrate or threatening their survival.<sup>62</sup>

### Economic impacts

Economic damage from the pollution was serious, as the pollution started in 2001 and only stopped recently after the installation of new filtering devices. The biggest losses, as in the case of the cyanide spill in Baia Mare, are suffered by fisheries sector and the tourism sector. Ecotourism, angling and water sports provided an important income in the region, but fell away almost completely as a result of the pollution.<sup>63</sup>

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<sup>61</sup> Czigler (2007) p. 5.

<sup>62</sup> [www.szentgotthard.hu](http://www.szentgotthard.hu) > Ehető a Rába hala.

<sup>63</sup> Environment Committee Meeting 2-3 May 2007, No PE 386.518.

### III. LEGAL PROTECTION REGIME

The fact that the serious pollution of the Tisza and the Rába rivers could take place highlights the problem of transboundary river pollution and raises the question how such events could happen. Is there a lack of sufficient legal protection of transboundary waters which could prevent the pollution? As both pollution events were a result of economic development which resulted in harm to economy, society and environment (the three pillars of sustainable development), from a sustainable development point of view, this question could be formulated as whether law can preserve the fragile balance between these three pillars or to what extent could law implement the concept of sustainable development.

To find an answer to these questions, this chapter will examine the legal requirements of international and European law relevant to transboundary industrial river pollution and it will present how these rules can be applied in the example cases. By pointing out how Hungary could rely on the various rules of International and European law in the Tisza and the Rába cases, this study only intends to cast light on the applicability of the rules and by no means it aims at drawing conclusions regarding the responsibility of Romania and Austria, since that would be the task of the competent international tribunal if the involved parties would start a procedure.

#### III.1. International law

In reviewing international law, the study will rely on the sources of international law defined by Article 38 (1) of the Statute of the International Court of Justice (ICJ): conventional law, customary international law, general principles of law, judicial decisions and the teachings of the most highly qualified publicists. However, the sources will not be analyzed individually, as this would result in unnecessary repetition. Rather, first the rules and principles reflected by customary international law will be reviewed with a glance at the case law of international tribunals.

Following this, the relevant multilateral and bilateral treaties will be examined. The analysis will focus on five key elements: (i) parties and legal status, (ii) objective of the treaty, (iii) general principles, (iv) provisions for prevention and (v) the applicability of these provisions in the example cases.

The conventions that will be reviewed are the following:

- 1997 UN Convention on the Law of Non-Navigational Uses of International Watercourses (UN Watercourses Convention);
- 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention) and its 1999 Protocol on Water and Health;
- 1992 UNECE<sup>64</sup> Convention on the Transboundary Effects of Industrial Accidents (Industrial Accidents Convention);

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<sup>64</sup> United Nations Economic Commission for Europe.



- 1991 Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention);
- 1998 UNECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention);
- 1994 Danube Protection Convention;
- 1956 Treaty between the Republic of Hungary and Austria on the water management of the border region; and
- 1996 Treaty between the Republic of Hungary and Romania on Understanding, Cooperation and Good Neighbourliness.

International environmental law is still a relatively new and developing branch of law which is guided by many principles. These principles developed in customary international law, were laid down in treaty provisions, came to be regarded as general principles of international law by the ICJ, or were formulated by soft law instruments. Often their formulation in one source was followed by their reiteration in others.<sup>65</sup> The legal status of the principles depends on which of these sources reflect them. To avoid repetition these principles will not be discussed in a separate section but together with the source of law they emerged in.

For the purpose of this study, sustainable development will not be treated as a legal principle as it is in fact a goal that many of the principles aim to promote, but not a legal principle in itself as it lacks any normative character.<sup>66</sup>

### **III.1.1. Customary international law**

The term 'customary international law' refers to those rules which evolved from reasonably consistent practice of states coupled with 'opinio juris', meaning that the states recognise the rule as a law binding upon them, thus they accept the obligation to follow the practice.<sup>67</sup>

Many principles of international environmental law are by now part of customary international law, while the status of others is still debated. The principles which can help protect the rivers in an international river basin from industrial pollution are the 'no harm' principle, the 'equitable utilization' principle, the 'precautionary' principle and certain procedural principles.

#### **The no harm principle**

It is well-established in international environmental law that states have a sovereign right to exploit their natural resources. This right is limited, however, by the duty not to cause harm to (the environment of) other states. This no harm principle was first formulated by the arbitral tribunal of the Trail Smelter case on transboundary air pollution, which concluded that "*no state has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another*".<sup>68</sup>

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<sup>65</sup> Hudson (2001) p. 383.

<sup>66</sup> Rieu-Clarke (2005) p. 56-57.

<sup>67</sup> Dixon (2007) p. 30-37.

<sup>68</sup> Trail Smelter case (1941).

This principle was also endorsed by the ICJ, *inter alia* in its judgement in the Corfu Channel case<sup>69</sup> and in its advisory opinion on the Legality of the Threat or the Use of Nuclear Weapons<sup>70</sup> in which it considered the principle part of customary international law.<sup>71</sup>

In 1972 the no harm rule was formulated somewhat differently by the Stockholm Declaration. Principle 21 requires states “*to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction*”. This formulation, as opposed to the one in the Trail Smelter arbitration, not only requires the reparation of transboundary damages, but also imposes the duty on states to prevent damage.<sup>72</sup> This preventive approach was followed by many treaties and Principle 2 of the Rio Declaration.<sup>73</sup>

Since the no harm rule is part of customary international law, it poses the obligation on every state to prevent transboundary damage even without a concrete treaty obligation. This is not an absolute obligation, but a due diligence obligation, the extent of which differs depending on the risk the activity poses on the environment. In case of industrial activities, stronger due diligence obligations apply, requiring states to take wider preventive measures. According to the 2001 ILC Draft Articles on Prevention of Transboundary Harm from Hazardous Activities such preventive measures would include the prior authorization of the activity based on prior risk assessment, notifying the potentially affected states of risks, and exchange available information on the activity with concerned states.<sup>74</sup> Accordingly, it could be argued that Romania was in breach of its obligation not to cause transboundary harm when it gave permission for the operation of the goldmine but failed to implement appropriate preventative measures. Similarly, Austria may have violated the no harm rule for giving factories permission to discharge pollutants which caused significant harm in the territory of Hungary.

### **Equitable utilization**

The principle of equitable utilization, as interpreted by the International Law Commission (ILC) with regard to sources of water recognizes that “*each state has an equal right to an equitable share of the uses and benefits of the stream*”.<sup>75</sup> This requires weighing the different interests of the riparian states against each other and taking into consideration all relevant factors.<sup>76</sup> The principle emerged as early as 1929 in a judgement of the Permanent Court of International Justice (PCIJ) in the River Oder case, which concerned navigational rights on a transboundary river. The PCIJ found that “*[the] community of interest in a navigable river becomes the basis of a common legal right, the essential features of which are the perfect equality of all riparian States in the use of the whole course of the river and the exclusion of any preferential privilege of any one riparian in relation to others*”.<sup>77</sup> In the following decades,

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<sup>69</sup> Corfu Channel case (1949) paragraph 22.

<sup>70</sup> Nuclear Weapons case (1996) paragraph 30.

<sup>71</sup> Birnie and Boyle (2009) p. 143.

<sup>72</sup> *Ibid* p. 111.

<sup>73</sup> Convention on Biological Diversity, Article 3; Convention of Climate Change, Preamble.

<sup>74</sup> See 2001 ILC Draft Articles on Prevention of Transboundary Harm from Hazardous Activities Article 3, 6, 7, 12.

<sup>75</sup> Helal (2007) p. 345.

<sup>76</sup> Birnie and Boyle (2009) p. 202.

<sup>77</sup> River Oder case (1929) p. 27.

the principle was referred to by the ICJ on several occasions, the most relevant judgement of the ICJ being the dispute between Hungary and Slovakia about the building of the Gabčíkovo-Nagymaros dam. In its judgement, the ICJ referred to proportionality as a principle which had been strengthened by the modern development of international law and held that Slovakia had deprived Hungary of its “*right to an equitable and reasonable share of the natural resources of the Danube*” by unilaterally appropriating 80-90% of the water.<sup>78</sup> The international tribunals case law shows that the equitable utilization principle is strongly supported by state practice, and is now part of customary international law.

Even though the principle mainly deals with water quality, it does have relevance for the example cases. In both the Rába and the Tisza cases, Hungary’s right to its equitable share of the uses and benefits of the water flow was prejudiced by the pollution as its access to clean water from the affected rivers was limited, with the negative social, economic and environmental consequences that have been set out before as a result.

### **Precautionary principle**

The precautionary principle aims to increase environmental protection by calling for risk assessments and implementation of measures to prevent environmental harm in case of scientific uncertainty. When there is a chance that a human activity can cause serious or irreversible harm, and there are reasonable grounds for concern, preventive measures have to be taken to eliminate the risk. Principle 15 of the Rio Declaration states “*where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation*”<sup>79</sup>. The precautionary principle differs from the no harm principle in that it aims to prevent *uncertain* harm as opposed to *certain* harm. Further, the no harm principle already applies when the harm is 'significant', whereas the precautionary principle refers to 'serious damage'. A further difference is that while the no harm principle applies for transboundary harm, the precautionary principle has a wider scope as it is applicable in general for human activities.<sup>80</sup>

The precautionary principle is referred to in several treaties<sup>81</sup> and some argue that it constitutes part of customary international law.<sup>82</sup>

The implementation of the precautionary principle is especially important in preventing industrial accidents such as the Baia Mare cyanide spill where the probability of an accident was not adequately foreseeable,<sup>83</sup> but is also relevant in the Rába case where harm could have been avoided if appropriate filtering systems had been used.<sup>84</sup> Precautionary measures can include application of the best available technology, carrying out of environmental impact assessments, monitoring of the activity, prepare contingency plans, etc. If the view that the precautionary principle is a part of customary international law is accepted, the principle

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<sup>78</sup> Gabčíkovo-Nagymaros case (1997) paragraph 85.

<sup>79</sup> Rio Declaration (1992), Principle 15.

<sup>80</sup> Birnie and Boyle (2009) p. 136-137.

<sup>81</sup> For example: 1992 United Nations Framework Convention on Climate, 1992 Convention on Biological Diversity; Watercourses Convention. See also Rieue-Clarke (2005) p. 70-71.

<sup>82</sup> Rieue-Clarke (2005) p. 70-71, p. 73.

<sup>83</sup> Trouwborst (2006) p. 7; Faragó, Kocsis-Krupper (2000) p. 55.

<sup>84</sup> The foaming of the river Rába is predicted to stop when the factories will start using a new filtering system.

should be applied by states even in the absence of a concrete treaty obligation. Accordingly, the omission of precautionary measures can be a breach of international law.

### **Procedural principles**

Besides the substantive principles, international law also provides procedural principles for the protection for transboundary waters, which focus on the means which can help to reach the outcomes promoted by the aforementioned substantive principles.<sup>85</sup> Such procedural principles are the duty to cooperate, the duty to assess risks, the duty to notify and inform of risks, the duty to consult and the duty to notify and assist in case of emergencies. The principles are formulated by the Rio Principles but can also be found in several treaties and are accepted as customary international law.<sup>86</sup>

Procedural principles are often referred to by international tribunals. An early example is the case of Lac Lanoux, which was about diverting water by France from the lake by a hydroelectric dam which resulted in less water flow of a river in Spain originating from the lake.<sup>87</sup> The Arbitral Tribunal stated that genuine negotiations and consultations are required to find a reasonable solution for both parties and that no state can decide on its own whether its planned project on an international watercourse would affect another state. Only the other state can judge its own interests, and therefore has to be informed on the proposal.

In the Gabčíkovo-Nagymaros case the ICJ obliged the parties to conduct meaningful negotiations in order to find a solution.<sup>88</sup> In its judgement, it also called for the continuous assessment of the environmental risks of the project.<sup>89</sup> The institutionalized form of this obligation is the environmental impact assessment which has to be carried out in case the proposed project is likely to have significant adverse effects on the environment.<sup>90</sup> The function of such an assessment is to help the decision of the competent authority on the permission of the project by disclosing the possible environmental risks.<sup>91</sup>

The implementation of procedural principles can play a vital role both in preventing pollution and responding to once it happened. As part of customary international law, states are bind by these duties but as they are all referred to by conventional law, their concrete applicability to the example cases will be discussed in the section on conventional law.

### **III.1.2. Conventional law - global treaties**

#### **UN Watercourses Convention**

The Watercourses Convention was adopted by the UN General Assembly in 1997. It has a global scope addressing watercourse states all over the world. The convention is not in force

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<sup>85</sup> Nanda and Pring (2003) p. 17.

<sup>86</sup> Birnie and Boyle (2009) p. 175-180, Nanda and Pring (2003) p. 17.

<sup>87</sup> Lac Lanoux case (1957).

<sup>88</sup> Gabčíkovo-Nagymaros case (1997) paragraph 141.

<sup>89</sup> *Ibid* paragraph 112, 141.

<sup>90</sup> Rio Declaration (1992) Principle 27.

<sup>91</sup> Wood (2002) p.1.

yet because even though over a hundred states voted for its adoption,<sup>92</sup> in the last eleven years only sixteen states have deposited an instrument of ratification, accession, approval or acceptance (thirty-five are required). Hungary approved the Watercourses Convention in January 2000.<sup>93</sup>

The two main principles laid down by the convention are the equitable and reasonable utilization of international watercourses and the no harm principle.<sup>94</sup> To facilitate the interpretation of the equitable utilization principle, it lists the relevant factors to be taken into account when using an international watercourse, such as the transboundary effect of the use of a watercourse.<sup>95</sup>

The no harm principle, contained in Article 7, poses an obligation on states to “*take all appropriate measures to prevent the causing of significant harm to other watercourse States*”.<sup>96</sup> Not to cause harm is not an absolute obligation but a due diligence obligation, the extent of which depends on the type of the activity. The more hazardous an activity is, the higher the requirements are for the preventive measures.<sup>97</sup> Further, Article 7 paragraph 2 states that if significant harm has been caused, the polluter state has to mitigate the harm with due regard for the provisions on equitable and reasonable utilization. This can be seen as a manifestation of another general principle of international law: the 'polluter pays' principle.<sup>98</sup> However, the provision formulates the duty to mitigate and eliminate the harm and compensate the victim state only as a due diligence obligation.

The convention lays down important procedural principles, such as the general duty for states to cooperate in order to achieve the optimal utilization and the protection of the watercourse, the duty to exchange information on the watercourse and the notification of other states on planned measures with possible adverse effect.<sup>99</sup>

Part IV of the convention contains several obligations regarding the protection, preservation and management of the international watercourses, strengthening Article 5 paragraph 2 which requires that the utilization of the watercourse has to ensure adequate protection.

The convention applies the river basin approach, as it recognizes that international watercourse have to be managed as a whole. Furthermore, even though the focus of the convention is more on equitable and reasonable use of the watercourse than on transboundary pollution as such, it does contain the general obligation not to cause harm

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<sup>92</sup> Salman (2007) p. 7.

<sup>93</sup> <http://treaties.un.org> > Status of Treaties > Environment > Convention on the Law of the Non-Navigational Uses of International Watercourses.

<sup>94</sup> Birnie and Boyle (2009) p. 551.; Bourne (1997) p. 218.

<sup>95</sup> Article 6.

<sup>96</sup> Article 7.

<sup>97</sup> Keessen *et al.* (2008) p. 38.

<sup>98</sup> The polluter pays principle means that the polluter should bear the costs of the pollution. It first emerged in the 1972 OECD Guiding Principles Concerning International Economic Aspects of Environmental Policies where it was defined as an economic means of allocating the cost of the pollution. The polluter pays principle has two aspects. On the one hand it involves the internalization of costs, on the other hand it also requires that the person responsible for the pollution should pay for the actual damage. Principle 16 of the Rio Declaration follows a similar approach.

<sup>99</sup> Articles 8-9, 11-19.

and reflects many procedural principals of customary international law. Further, it requires the transboundary effects of the use of a watercourse to be taken into account, which also covers uses causing transboundary pollution. Consequently, if the convention does enter into force, it could be applied to transboundary pollution cases.

Therefore, assuming the convention enters into force and the Danube river basin countries ratify it, in case of transboundary pollution similar to the Baia Mare accident or the foaming of the Rába, Hungary as a downstream country could benefit from its provisions limiting the right of its upstream neighbours to use the water of rivers running to Hungary. Such provisions are the no harm rule in Article 7 and the provisions on cooperation, providing information and notification on planned measures with possible adverse affects in the subsequent Articles. If Romania were to plan on opening a new gold mine – as it does in Rosia Montana – it would have to conduct negotiations with potentially affected countries on the possible effects. In case of an accident similar to the cyanide spill in Baia Mare, the convention could provide help by requiring immediate notification of the potentially affected states, as it requires measures aiming to mitigate the effects of the accident and demands the development of contingency plans. Furthermore, in both cases Hungary could refer to the rather general provisions of Part IV on the protection, preservation and management or it could enter into watercourse agreements with its neighbours to specify the general obligations.

### ***III.1.3. Conventional law - UNECE framework Conventions for the protection of the environment***

Governments within the UNECE developed a coherent legal framework to protect the environment and promote sustainable development in the pan-European region. This framework includes the UNECE Water Convention, the Convention on the Transboundary Effects of Industrial Accidents, the Espoo Convention and the Aarhus Convention.<sup>100</sup> These multilateral agreements complement each other facilitating to reach their common goals.

#### **UNECE Water Convention**

The UNECE Water Convention was adopted in 1992 in Helsinki and entered into force in 1996. Contrary to the UN Watercourses Convention, it does not have a global scope but addresses the countries in the pan-European region.

The primary purpose of the preparation of the convention was to create a legal framework for transboundary water management in Europe, where treatment of watercourses was based on several non-binding international instruments and bilateral and multilateral agreements with rather varying underlying principles.<sup>101</sup> States recognised that the adoption of common rules and principles could strengthen the cooperation of European countries in ensuring the sustainable use of international waters.<sup>102</sup>

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<sup>100</sup> [www.unece.org/env/teia/intro.htm](http://www.unece.org/env/teia/intro.htm). The framework also includes the 1979 Convention on Long-range Transboundary Air Pollution and its protocols but it has no relevance to the topic of this study.

<sup>101</sup> Bernardini (2008) p. 2.

<sup>102</sup> *Ibid*; Faragó, Kocsis-Kupper (2000) p. 27.

Similar to the UN Watercourses Convention, the UNECE Water Convention is a framework convention, containing basic general provisions which have to be specified by agreements concluded among the riparian states of a certain catchment area, taking into account the local characteristics.<sup>103</sup> Despite its general nature, the convention contains more detailed rules than the UN Watercourses Convention, which is probably the result of its more narrow territorial scope covering mainly developed countries and countries in transition, allowing the convention to create a more advanced water management regime.<sup>104</sup>

Under the convention, entering into bilateral and multilateral agreements is not a possibility but an obligation for riparian countries, which also have to adapt their existing agreements to the convention by eliminating inconsistencies.<sup>105</sup> In this, the convention establishes much stricter standards than the UN Watercourses Convention which does not affect existing agreements of the parties.<sup>106</sup>

The convention distinguishes between provisions relating to all parties and provisions applying to only riparian countries. The former group contains general obligations to combat transboundary pollution and guiding principles to be followed.

The general obligations include the no harm rule as a due diligence obligation but also indicates what kind of measures are required to fulfill the duty.<sup>107</sup> The convention also calls for the equitable and reasonable utilization of water, not as a guiding principle but as a due diligence obligation of parties necessary to prevent, control and reduce transboundary pollution.<sup>108</sup> The convention, in Article 2, specifically refers to the precautionary principle, the polluter pays principle, the intergenerational equity principle<sup>109</sup> and the cooperation principle.

The provisions for riparian states contain rules on cooperation, and call for *inter alia* joint monitoring and assessment and the exchange of information between the riparian states.<sup>110</sup>

For the example cases, the following applies: the convention had at the time of the polluting events already been ratified by Hungary, Austria and Romania. Therefore, the convention can be referred to by Hungary for the disputes.

In the Rába case, Austria arguably did not act with due diligence in preventing pollution causing transboundary impact because it failed to regulate and control properly the activities of the leather factories. Also, it might be held responsible for not meeting the requirements that the waste-water discharge of hazardous substances should be based on the best

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<sup>103</sup> Article 2 paragraph 6.

<sup>104</sup> Wouters and Vinogradov (2003) p. 60.

<sup>105</sup> Article 9 paragraph 1; Tanzi (2000) p. 42.

<sup>106</sup> UN Watercourses Convention Article 3 paragraph 1.

<sup>107</sup> Measures include e.g. low- and non-waste technology, limiting waste water discharges with best available technology, carrying out environmental impact assessments, or developing a sustainable water-resource management based on the ecosystems approach, minimizing risks of accidental pollution. Tanzi (2000) p. 15.

<sup>108</sup> Article 1. paragraph 1.2. c).

<sup>109</sup> The intergenerational equity principle creates a link between present and future generations and requires that the present generation uses the natural resources in a way which will allow future generations to benefit from these resources the same way as present generations do.

<sup>110</sup> Articles 9-16.

available technology (although Hungary would need to show that naphthalene-1.5-disulphonate is a hazardous substance as meant in Article 1 of the convention).

In the Tisza case, Romania failed its obligations to prevent pollution causing transboundary impact and to minimise the risk of accidental pollution by allowing an inappropriately designed installation to operate, instead of adopting higher technological standards.<sup>111</sup>

In both cases, Hungary can recall the intergenerational equity principle and remind the polluting countries that their failure to adequately implement this principle could cause or has caused irreversible environmental damage, such as the perishing of certain species of fish from the Tisza river and the accumulation of heavy metals in the sediment. Especially in the Baia Mare accident it is certain that the river will be passed on to a future generation in a much worse condition than it was inherited by the polluting generation.

Hungary could further refer to the environmental principles laid down by the convention and argue that in both cases the polluter should compensate it for the damage. The determination whether this responsibility should be borne by the polluting company, or by the state where it operates, is a question of public and civil liability. Chapter V will address this in more detail.

### **Protocol on Water and Health**

In 1999, the Parties to the UNECE Water Convention adopted the Protocol on Water and Health to the convention. It aims to reduce water related diseases by improving water management, and entered into force in 2005.<sup>112</sup>

The protocol stipulates the integration principle<sup>113</sup> and follows the river basin approach, calling for integrated management of waters in catchment areas which should integrate economic and social interests into policy making.<sup>114</sup> For example, reducing transboundary pollution to a level which allows clean drinking water and sanitation for everyone, would positively impact the economy. The protocol further refers to many of both the substantial and the procedural principles of environmental law.

The protocol is concerned about any change in the quality of the water with significant transboundary adverse effects on human health or on the environment of a downstream country. In order to eliminate such effects, Parties have to establish national or local targets for *inter alia* the quality of drinking water, the reduction of water-born diseases, and waste water discharges, and have to prepare water management plans not only in a national but also in a transboundary context based on the catchment areas.<sup>115</sup>

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<sup>111</sup> Baia Mare Task Force Report (2000) p. 30.; REC (2001) p. 25.

<sup>112</sup> [www.unece.org](http://www.unece.org) > Environmental Policy > Conventions > Water > Status of Ratifications.

<sup>113</sup> The principle of integration of environment and development expressed in Article 5.j reflects the concept of sustainable development, embracing both economic and social development, meaning that all the three pillars of sustainable development have to be incorporated into environmental policies. The principle was also acknowledged by the ICJ in the Gabčíkovo-Nagymaros case: “[The] need to reconcile economic development with the protection of the environment is aptly expressed in the concept of sustainable development.” Gabčíkovo-Nagymaros case (1997) paragraph 140.

<sup>114</sup> [www.unece.org](http://www.unece.org) > Environmental Policy > Conventions > Water > Protocol on Water and Health.

<sup>115</sup> Article 6 paragraphs 2 and 5.b.



Although the protocol cannot be applied to the example cases (Austria has not yet ratified it, and it entered into force after the Baia Mare accident) it may help prevent similar pollutions in the future by promoting effective and sustainable water management.

### **UNECE Convention on the Transboundary Effects of Industrial Accidents**

The Convention on the Transboundary Effects of Industrial Accidents was adopted in 1992 in Helsinki and entered into force on 19 April 2000.<sup>116</sup> Its main objective is to decrease the severity and the frequency of industrial accidents with a transboundary effect and develop effective response measures. Consequently, it promotes measures to prevent the accidents, be prepared for them and respond to them if they happen. Like the UNECE Water Convention does, it aims to achieve its goal through international cooperation.

In its preamble, the convention refers to the polluter pays principle as a general principle of international law and to the principles of good-neighbourliness, reciprocity, non-discrimination and good faith as its underlining principles.

To stimulate prevention, the convention requires the Parties to identify and prepare a list of their hazardous operations, inform the other Parties about them and consult the ones which could be affected by these operations.<sup>117</sup> Prevention also includes the analysis of past accidents to be able to learn from them.<sup>118</sup>

Articles 8 through 11 of the convention require Parties to prepare contingency plans for hazardous operations to ensure preparedness, imposes the obligation on Parties to inform and involve the local residents into the decision making on prevention and preparedness, and calls on Parties to cooperate and help each other in case of accidents and set up notification systems.

The convention was not in force in time of the Baia Mare spill and Romania ratified it only in 2003, therefore it could not be recalled in a legal dispute. However, if a similar accident were to take place now, the provisions of the convention could be applied as its scope covers “*the prevention of, preparedness for and response to industrial accidents capable of causing transboundary effects, including the effects of such accidents caused by natural disasters*”.<sup>119</sup> The convention does not apply to dam failures in general, but it contains an exception clause according to which the scope of the convention does cover dam failures, if the failure causes the industrial accident, meaning that a similar spill to the one in Baia Mare would fall under the scope of the convention.<sup>120</sup>

### **Espoo Convention**

The Espoo Convention, adopted in 1991 and entered into force in 1997, recognizes that the most effective way to prevent transboundary impacts of human activities is for possible environmental effects of an activity to be assessed in the planning phase.<sup>121</sup> The convention

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<sup>116</sup> [www.unece.org](http://www.unece.org) > Environmental Policy > Conventions > Industrial Accidents.

<sup>117</sup> Article 4 paragraphs 1-2.

<sup>118</sup> [www.unece.org](http://www.unece.org) > Environmental Policy > Conventions > Industrial Accidents.

<sup>119</sup> Article 2 paragraph 1.

<sup>120</sup> Article 2 paragraph 2.c.

<sup>121</sup> Faragó, Kocsis-Krupper (2000) p. 37.

is the first multilateral legal instrument creating a basis for environmental impact assessment (EIA) procedures.<sup>122</sup>

Even though it does not refer to any principle of international law explicitly, the concept of environmental impact assessments is based on the precautionary and the prevention of environmental harm principles.<sup>123</sup>

The convention imposes three major obligations on Parties. Firstly, they have to implement the convention into national law by establishing an EIA procedure in which the public is involved, and which requires the preparation of certain prescribed EIA documentation<sup>124</sup>. Secondly, Parties have to ensure that the EIA procedure is conducted before an activity is permitted and thirdly, the potentially affected countries have to be notified about the planned activity.<sup>125</sup>

The EIA procedure has to be carried out only if the proposed activity is listed in Appendix I to the Espoo Convention and is likely to cause significant transboundary impact, or if it is not listed in Appendix I but the concerned Parties agree that the proposed activity is still likely to cause significant transboundary impact.<sup>126</sup>

The significance of the convention is that it provides the opportunity for the affected country to participate in the EIA procedure and by this means promotes its interests already in the planning phase of the project. If the affected Party wishes to participate in the EIA procedure, it has to be furnished with the EIA documentation, based on which a consultation is conducted between the country of origin and the affected Party.<sup>127</sup> The consultation involves the discussion of possible alternatives, including the option not to implement the proposed project.<sup>128</sup> The Party of origin has the obligation to base the final decision on the outcome of the EIA procedure and inform the affected Party on its reasoning.<sup>129</sup>

Even though the convention entered into force in 1997, Romania became a Party to it only two months after the Baia Mare accident. Hungary and Austria already ratified the convention before it entered into force.<sup>130</sup>

Mining activities as at Baia Mare fall within the scope of the convention as it is listed in Appendix I. So, if Romania had been Party to the convention, it would have breached its obligation to “*take appropriate and effective measures to prevent, reduce and control significant adverse transboundary effects from the proposed project*” and to establish adequate environmental impact assessment procedures.<sup>131</sup> Even though an environmental

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<sup>122</sup> Bosnjakovic (1998) p. 56.

<sup>123</sup> *Ibid.*, p. 55.

<sup>124</sup> Appendix II.

<sup>125</sup> Article 2 paragraphs 2-4.

<sup>126</sup> Article 2 paragraphs 3, 5.

<sup>127</sup> Article 4 paragraph 2.

<sup>128</sup> Article 5.

<sup>129</sup> Article 7 paragraph 2.

<sup>130</sup> [www.unece.org](http://www.unece.org) > Environmental Policy > Conventions > Environmental Impact Assessment > Status of Ratifications.

<sup>131</sup> Article 2 paragraphs 1-2.

impact assessment for the site was carried out, it was found flawed by the Baia Mare Task Force because it did not take into account possible bad weather conditions.<sup>132</sup>

For future projects, Romania will have to comply with the convention, so Hungary as a potentially affected country could participate in EIA procedures and ensure all relevant factors are taken into consideration. This appears to be taking place: recently, Hungary entered into such EIA procedure, which was undertaken for a new gold mine in Rosia Montana, initiated in 2004. This project would use the same cyanide based procedure to extract gold and silver as the Baia Mare mine, but on a much larger scale. The new mine would have a tailings pond forty times bigger than the one in Baia Mare.<sup>133</sup> In accordance with the convention, Hungary provided detailed remarks on the prepared documentation in 2006. It raised serious objections, as the assessment in its view underestimated environmental risks and costs of prevention, and lacked the proposal of alternatives. In general, the procedure received strong opposition in Romania from public and civil organizations. Currently it is suspended.<sup>134</sup>

### **Aarhus Convention**

Sustainable development is only achievable if all stakeholders work together to realise it. This recognition led to the adoption of the Aarhus Convention in 1998, which entered into force only three years later in 2001.<sup>135</sup>

The convention is based on three pillars: access to information, public participation in decision making, and access to justice.

The first pillar obliges public authorities to provide environmental information on request. The second pillar guarantees that in the decision making process public opinion will be taken into account. The third pillar provides the opportunity to the public to access to justice in case an information request was not adequately dealt with or environmental law was breached.<sup>136</sup>

The convention was ratified by Hungary in 2001, by Austria in 2005 and by Romania in July 2000. Therefore, in the case of the cyanide spill there were no legal obligations of Romania or Hungary arising from the convention. In the future however, the convention can help avoid similar accidents by ensuring the transparency of decision making.<sup>137</sup> In this sense, the provisions of the convention can serve as an effective support for the provisions of the Espoo Convention on public participation in the EIA process. For example, in the Rosia Montana project a well-informed public could more effectively put pressure on decision makers, forcing for instance the application of better technology.

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<sup>132</sup> Baia Mare Task Force Report (2000) p. 9.; REC (2001) p. 28.

<sup>133</sup> [www.hegyigyula.hu](http://www.hegyigyula.hu) > Publications > Prevent an ecological catastrophe - Stop the cyanide gold mining investment in Romania! 20-09-2006.

<sup>134</sup> Please see [www.kvvm.hu](http://www.kvvm.hu) and <http://rosiamontana.org> for further details.

<sup>135</sup> [www.unece.org](http://www.unece.org) > Environmental Policy > Conventions > Public Participation.

<sup>136</sup> Article 9 paragraphs 1-3.

<sup>137</sup> REC (2001) p. 29.

## Danube River Protection Convention

As Hungary lies entirely in the Danube river basin, and both the Tisza and the Rába rivers are tributaries of the river Danube, the Danube River Protection Convention must also be analysed. It was adopted in Sofia in 1994 and entered into force four years later. Its territorial scope is limited to the Danube catchment area and it applies to Danubian countries with more than 2000km<sup>2</sup> share of that area.<sup>138</sup> Currently all fourteen riparian states fulfilling this condition are party to the convention, as are the European Community and some nearby cooperating countries.<sup>139</sup>

The convention is one of the multilateral legal instruments which elaborate on the general provisions of the UNECE Water Convention regarding a sub-region.<sup>140</sup> Accordingly, its main objective is to develop a sustainable and equitable water management by the means of cooperation among the riparian states.<sup>141</sup>

Water management should be based on the concept of sustainable development, meaning that the development in the region should maintain the quality of life and the access to natural resources and it should protect the environment from enduring damage by taking a preventive approach.<sup>142</sup> Besides integrating the three pillars of sustainable development into water management, riparian states are also required to incorporate the precautionary and the polluter pays principles into their measures.<sup>143</sup>

To facilitate the cooperation between the Danubian states and the harmonised implementation of measures, the convention calls for the establishment of the International Commission, which is a transnational body in which all Parties are represented. The Commission has competence among others to prepare proposals and recommendations for the Parties, to determine the information the countries have to exchange with each other, to regulate the procedure of research programmes and to develop procedures for mutual assistance. To assist it, the Parties must submit reports with required information.<sup>144</sup>

To achieve equitable and sustainable use of the Danube, the convention prescribes several measures to prevent, control and reduce transboundary harm, such as measures to improve the water quality, to develop monitoring programmes, and to exchange information.<sup>145</sup>

Hungary, Austria and Romania all ratified the convention in 1998, therefore they were bound by its regulation at the time of the pollution of the Tisza and the Rába rivers.

Firstly, with regard to Romania, it is arguable that it failed to minimize the risks of accidental pollution, because as the Baia Mare Task Force Report states the EIA of the project was

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<sup>138</sup> Article 1.a.

<sup>139</sup> Parties are: Austria, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Germany, Hungary, Moldova, Montenegro, Romania, Slovakia, Slovenia, Serbia, Ukraine and the European Union. Cooperating countries: Italy, Switzerland, Poland, Albania and the Former Yugoslav Republic of Macedonia. See: [www.ipcdr.org](http://www.ipcdr.org) > About us > Contracting Parties.

<sup>140</sup> Bernardini (2008) p. 2.

<sup>141</sup> Article 2.

<sup>142</sup> Article 2 paragraph 5.

<sup>143</sup> Article 2 paragraph 4.

<sup>144</sup> Articles 10, 12, 15, 17 and 18.

<sup>145</sup> Part II.

flawed and the design and monitoring requirements were inadequate, although the term “minimize” is not determined by the convention, therefore its exact meaning is debatable.<sup>146</sup> Secondly, Romania arguably breached its obligation to ensure that permits for industrial installations require the application of the best available techniques.<sup>147</sup> Thirdly, it is debatable whether the Romanian authorities adequately monitored whether the installation operated in line with its permits. It has to be noted that Romania did fulfill its obligation to establish its share of the Danube Accident Emergency Warning System, although it is debatable how effective it was in responding to the accident.<sup>148</sup>

As for Austria, it is arguable that the precautionary principle was not adequately applied, as the factories were not obliged to use special filtering devices as best available technology.

### **III.1.4. Conventional law - Bilateral agreements**

#### **Treaty between the Republic of Hungary and Austria on the water management of the border region**

This treaty was signed in 1956 and has been in force since 1959. The scope of the treaty covers every kind of water management issue, and does not only focus on pollution control. Nevertheless, it states as a general obligation that the Parties should impose obligation on new installations to install appropriate filtering devices.<sup>149</sup> The treaty calls for the establishment of the Hungarian-Austrian Water Management Committee, which has been managing the work of the two countries for fifty years. The role of the committee in bilateral cooperation will be discussed in Chapter IV.

#### **Treaty between the Republic of Hungary and Romania on Understanding, Cooperation and Good Neighbourliness**

This treaty was adopted in 1996 and creates a framework for the cooperation of the two countries in security issues, under which the Parties committed themselves to cooperate in order to prevent, reduce and eliminate transboundary pollution and immediately inform each other on accidents threatening to result in environmental catastrophes and on extraordinary measures taken in response to such accidents.<sup>150</sup>

There is no ground on which Romania could be charged with violating this obligation, as its share of the Danube Accident Emergency Warning System has been established and the authorities of the two countries seemed to cooperate very well on a personal level over telephone.<sup>151</sup> As a result of the accident in 2003 the two countries, to further strengthen their cooperation, adopted a treaty on cooperation and mutual assistance in case of catastrophes

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<sup>146</sup> Baia Mare Task Force Report (2000) p. 10; REC (2001) p. 26.

<sup>147</sup> Article 7 paragraph 5.c; Baia Mare Task Force Report (2000) p. 30.

<sup>148</sup> REC (2001) p. 26; Baia Mare Task Force Report (2000) p. 19-20.

<sup>149</sup> Article 1 paragraph 7.

<sup>150</sup> Article 10; REC (2001) p. 26.

<sup>151</sup> Baia Mare Task Force Report (2000) p. 19.

which contains detailed rules on how the cooperation should be carried out and promotes the adoption of effective response measures in case of a catastrophe.<sup>152</sup>

### **III.1.5. Findings**

As the review shows, international law does provide a degree of protection for lower riparian countries. The most important fundamental principles related to environmental protection are part of customary international law and are also incorporated in the relevant treaties together with the concept of sustainable development. The UNECE framework treaties form the core of the regulation by creating a legal framework for river basin management. These conventions complement each other and even though their framework character does not allow them to contain detailed requirements on water quality, they promote river basin management by requiring the parties to cooperate with each other in pollution prevention and control and by calling for the conduct of regional agreements and national implementation measures. Such a regional agreement is the Danube Protection Convention which contain more specific rules on river basin management in the Danube basin.

### **III.2. European law**

The review of international legal instruments in relation to the environment showed that international law often relies on general rules and principles, and gives discretion to the states to adopt more detailed and precise rules to comply with them. The reason behind this relative generalization is that the complexity of environmental problems and the continuous development of technology and science to tackle them, coupled with the different circumstances of the countries, require a flexible legal regime, since it would be rather difficult to renegotiate the treaties regularly.<sup>153</sup>

The European Community (EC), compared to other institutions in international law, has the advantage that it has the competence to adopt legislation on environmental issues by qualified majority (as opposed to unanimity), which helped the EC to develop a comprehensive and rather detailed environmental legislation.<sup>154</sup>

The high level of protection for and improvement of the quality of the environment is one of the common policy aims of the EC.<sup>155</sup> In the course of developing an environmental policy, the EC adopted wide-ranging legislation covering environmental protection as a main objective.<sup>156</sup> The protection of the environment is not only the ultimate target of every environmental policy but it also has to be integrated into the definition and implementation of other Community policies; therefore it permeates the whole legislation.<sup>157</sup>

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<sup>152</sup> Published in Hungary by Act 81 in 2004.

<sup>153</sup> Birnie and Boyle (2009) p. 11.

<sup>154</sup> The European Community is the first pillar of the European Union. EC Treaty Article 175; Birnie and Boyle (2009) p. 11.

<sup>155</sup> Directive 2006/11/EC of the European Parliament and of the Council of 15 February 2006 on pollution caused by certain dangerous substances discharged into the aquatic environment of the Community Article 2.

<sup>156</sup> EC Treaty Article 174.1.

<sup>157</sup> EC Treaty Article 6.

Environmental matters are usually regulated by directives, which bind Member States to achieve their ends but leave choices for them regarding the form and the methods they use to reach the target.<sup>158</sup> Directives therefore can serve as effective means to harmonize national laws while still preserving the necessary flexibility.

In this section, the most relevant sectoral and horizontal directives of the EC concerning transboundary river pollution will be reviewed, first focusing on the Water Framework Directive (WFD) which is the centerpiece of the water legislation, providing the framework for integrated water management for river basins and pollution prevention and control.<sup>159</sup> In connection with the WFD, the 2008/1/EC Integrated Pollution Prevention Directive (IPPC Directive), the 2006/11/EC New Dangerous Substances Directive, the 2008/105/EC Environmental Quality Standards Directive (EQS Directive) and the Flood Protection Directive (2007/60/EC) will be analysed, as they elaborate on and complement the pollution prevention provisions of the WFD.<sup>160</sup>

Following this, the waste legislation will be reviewed, as transboundary river pollution is often caused by waste water discharged to the water.

Finally, the 96/82/EC Directive on the control of major-accident hazards involving dangerous substances (Seveso II Directive), the 85/337/EEC Directive on environmental impact assessment (EIA Directive) and the 2001/42/EC Directive on strategic environmental assessment (SEA Directive) will be reviewed, as they are the major legal instruments for the prevention of environmental catastrophes with transboundary effects.<sup>161</sup>

In each case, the relevancy of the reviewed directives in the example cases will be pointed out and where a directive is not applicable due to the fact that Romania joined the EU only in 2007, the potential future significance of the directive will be indicated.

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<sup>158</sup> Directive 2006/11/EC of the European Parliament and of the Council of 15 February 2006 on pollution caused by certain dangerous substances discharged into the aquatic environment of the Community; Craig and De Búrca (2004) p. 85.

<sup>159</sup> 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.

<sup>160</sup> Directive 2008/1/EC of the European Parliament and of the Council of 15 January 2008 concerning integrated pollution prevention and control;  
Directive 2006/11/EC of the European Parliament and of the Council of 15 February 2006 on pollution caused by certain dangerous substances discharged into the aquatic environment of the Community;  
Directive 2008/105/EC of the European Parliament and of the Council of 16 December 2008 on environmental quality standards in the field of water policy, amending and subsequently repealing Council Directives 82/176/EEC, 83/513/EEC, 84/156/EEC, 84/491/EEC, 86/280/EEC and amending Directive 2000/60/EC of the European Parliament and of the Council.

<sup>161</sup> Council Directive 96/82/EC of 9 December 1996 on the control of major-accident hazards involving dangerous substances;  
Council Directive 85/337/EEC of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment  
Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment.

### **III.2.1. Water legislation - the WFD**

The WFD was adopted in 2000 with the aim to put an end to the fragmented regulation in the field of water law, and to create a more effective and more coherent framework for water protection.<sup>162</sup> The directive endeavours to improve the quality of both surface and ground waters in the European Union, by decreasing the pollution of its water resources. For the purpose of this study, in the following, the WFD's aspects relevant to industrial pollution of transboundary rivers (surface waters) will be discussed. The pollution of ground waters, coastal and transitional waters will be disregarded, as well as pollution from sources other than industrial.

The WFD envisages multiple goals, including (i) the accomplishment of the good surface status of waters, (ii) the introduction of a combined approach of emission limit values and environmental quality standards, and (iii) the institution of a system of river basin management to create a framework for cooperation between Member States, which is essential in case of transboundary rivers.

To reach the ultimate goal of improving water quality, the directive identifies tasks which have to be carried out by the institutions of the Community and at the same time it imposes obligations on Member States to implement certain measures necessary to accomplish the overall goal.

#### **Target: good status of surface waters by 2015**

As a prerequisite of accomplishing sustainable use of waters on the long run, the directive requires Member States to implement the necessary measures to achieve the good status of their surface waters by 2015.<sup>163</sup>

When defining what constitutes a 'good' status of surface waters, the WFD takes a holistic approach and requires the simultaneous achievement of both good ecological and good chemical status.<sup>164</sup> The use of this double requirement is another expression of the recognition that the integration of the interests of the ecosystem into management plans is indispensable in order to accomplish sustainable development.

#### Good ecological status

The term 'ecological status' is defined as „*an expression of the quality of the structure and functioning of aquatic ecosystems associated with surface waters*“.<sup>165</sup> Annex V contains detailed provisions on how to classify the status of waters into the categories „high“ „good“, „moderate“ or „bad“. These provisions include the description of the biological, hydro-morphological and physico-chemical quality elements of rivers belonging to these categories.<sup>166</sup>

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<sup>162</sup> Grimeaud (2004) p. 29.; Preamble paragraph 18.

<sup>163</sup> Article 4.1.a)ii); Article 4.1.b)ii).

<sup>164</sup> Grimeaud (2004) p. 30.

<sup>165</sup> Article 2.21.

<sup>166</sup> Annex V, Article 1.2.1.



### Good chemical status

Regarding the chemical status of waters, Member States have to make sure that they meet the environmental quality standards established by the Community. As a prerequisite to ensuring the compliance of the Member States, the Community had to carry out two important tasks. Firstly, it had to identify the pollutants presenting danger to the aquatic environment of the Member States, and secondly, it had to review the existing legislation and create new laws establishing quality standards for substances requiring Community action.

To fulfill the first task, Article 16.1 of the WFD calls on the European Parliament and the European Council to identify as 'priority substances' those pollutants, which require swift action based on the risks they impose on the aquatic environment. Once these pollutants were identified, the Commission had to propose measures aiming to progressively reduce their level in water resources.<sup>167</sup> Those priority substances which are so dangerous that the cessation of their discharge is needed, have to be identified as 'hazardous priority substances' (the identification of polluting substances as priority substances or as hazardous priority substances was completed by the Decision 2455/2001/EC,<sup>168</sup> which list has been revised by the EQS Directive (2008/105/EC).

Once priority substances were identified, the old regulation had to be reviewed and new legislation had to be adopted while creating a transitional period for the shift. As a result, the EQS Directive established new quality standards for priority substances, including hazardous substances and repealed the old directives in two steps. First it took out their annexes setting up quality standards, then, with effect from 22 December 2012, it repealed them completely.<sup>169</sup> This transitional period helps Member States to adapt to the new regulation.

### Exemptions

The effectiveness of the WFD is somewhat undermined by the possible exemptions. Firstly, artificial and heavily modified bodies are exempted from the general obligation to reach good water status by 2015.<sup>170</sup> Secondly, Member States can also rely on Article 4.4 and extend the deadline if the body of water in question needs such a large scale improvement that it cannot be realized by 2015. Thirdly, there is also a possibility to lower the environmental objectives for specific bodies of water which are so affected by human activity, that their improvement would be infeasible or disproportionately expensive.<sup>171</sup> Furthermore, in case of force majeure such as natural disasters or accidents, the temporary deterioration of the water body does not constitute a breach of the directive.<sup>172</sup> Finally, under certain conditions, Member States can be exempted from their obligations if their failure to reach good water status is the result of new modifications to the physical characteristics of a surface water body or a new

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<sup>167</sup> Article 16.2.

<sup>168</sup> Decision 2455/2001/EC of the European Parliament and of the Council of 20 November 2001, establishing the list of priority substances in the field of water policy and amending Directive 2000/60/EC.

<sup>169</sup> 2008/105/EC Article 12.

<sup>170</sup> Article 4.5.

<sup>171</sup> *Ibid.*

<sup>172</sup> Article 4.6.

sustainable human development.<sup>173</sup> In the two latter cases Member States have to implement measures to prevent the deterioration of the water bodies.<sup>174</sup>

### **Combined approach**

Whether Member States will be able to accomplish the good status of their rivers by 2015 highly depends on the amount and types of pollutants discharged into them. In order to prevent pollution from deteriorating the quality of the water, the directive chose to use a combination of environmental quality standards and emission controls. The difference between the two instruments is that environmental quality standards control the level of pollutants in the water, while emission controls limit the emission of certain pollutants from a point source. Emission controls include „*controls requiring a specific emission limitation, for instance emission limit value, or otherwise specifying limits or conditions on the effects, nature or other characteristics of an emission or operating conditions which affect emissions*“.<sup>175</sup>

The combined approach of the WFD calls on Member States to first ensure that the emission requirements set out in the relevant Community legislation are met, but states that if a more stringent environmental quality objective or standard exists in Community legislation, the Member States have to apply stricter emission controls.<sup>176</sup> This combined approach is expected to result in more effective pollution prevention, as the utilization of only emission controls would have the disadvantage that they limit the pollution from individual installations, allowing for an extensive pollution from many different sources.<sup>177</sup> Similarly, relying only on environmental quality standards would not be satisfactory either, because it could lead to „a license to pollute“ up to the allowed level determined by the standard.<sup>178</sup> The combined approach used by the WFD is underpinned by the precautionary and the prevention principles and creates a result-oriented system, where the emission limits always have to be adjusted to stricter water quality requirements.<sup>179</sup>

### Emission control

Pollution prevention by the means of emission control is the basic element of the combined approach. The WFD, being a framework directive, does not contain any emission limits itself but in Article 10.2 it refers to other directives regulating the emissions regarding certain substances or certain polluting sectors.<sup>180</sup>

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<sup>173</sup> Article 4.7.

<sup>174</sup> Article 4.1.i).

<sup>175</sup> Article 2. 41.

<sup>176</sup> Article 10; Reichert (2005) p. 456.

<sup>177</sup> Adshead (2004) p. 8.

<sup>178</sup> Communication from the Commission to the Council and the European Parliament, European Community Water Policy, Com (96) 59 final, p. 13.

<sup>179</sup> Reichert (2005) p. 456.

<sup>180</sup> Regarding emission limits for substances, Article 10.2 refers to Annex IX, which lists the directives regulating the emission of certain substances.

Concerning transboundary river pollution by industrial installations, the New Dangerous Substance Discharges Directive (2006/11/EC), and the New IPPC Directive (2008/1/EC) are the most relevant and will therefore be reviewed.

#### *New Dangerous Substances Directive (2006/11/EC)*

As a part of the new legislative framework envisioned by the WFD, the old Dangerous Substances Directive (76/464/EEC) has been replaced by the New Dangerous Substances Directive, meanwhile the daughter directives of the old directive establishing emission limit values for certain substances were repealed by Article 22 of the WFD and will cease to have effect by 2013.

The main purpose of the New Dangerous Substances Directive is to identify those substances which have deleterious effect on the environment. To this end, the directive divides polluting substances into two categories based on the risks they pose to the aquatic environment. List I contains substances which are toxic, persistent or have the ability to bioaccumulate, therefore their emission should be ceased, whereas List II includes less dangerous substances, the discharge of which has to be reduced.<sup>181</sup> The directive requires prior authorization for the emission of both kinds of pollutants and in case of List I substances, the permit can be issued only for a limited period. The directive contains requirements regarding the content of the permits, for instance that it has to establish emission standards.<sup>182</sup> Further, programmes have to be developed in the Member States on how to reduce pollution from List II substances and deadlines have to be set for their implementation.<sup>183</sup>

Relevance for transboundary river pollution:

The dangerous substances directives are not applicable to the concrete case of the Baia Mare cyanide spill, because Romania was not a Member State of the EU at the time. However, it is interesting to examine what the relevance of the new directive would be in case of a similar accident taking place today. Since many gold mines still use the same leaching technique as the one used in Baia Mare, if the tailing dams of one of these gold mines would be to fail, rivers could be contaminated again with zinc, lead and cyanide. All of these substances are on List II of the new directive, therefore their emission has to be authorized by the competent authority and the permit has to lay down emission standards.

In the case of the Rába pollution, theoretically both the old and the new dangerous substances directive could be relevant since the pollution took place during a long period. To be able to establish whether the directives are indeed relevant, it has to be examined whether naphthalene-1.5-disulphonate, the polluting substance released from the leather factories, is identified as a dangerous substance or not. The Annex of the old directive and Annex I of the new directive contain the lists of dangerous substances. Naphthalene-1.5-disulphonate as such appears neither on List I, nor on List II and it does not belong to any

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<sup>181</sup> Preamble paragraphs 6-7.

<sup>182</sup> Article 4-6. Emission standards determine the maximum concentration and the maximum quantity of a substance permissible in a discharge (Article 5.1).

<sup>183</sup> Article 6.

groups of pollutants on List II either,<sup>184</sup> as it is a surfactant generally used during the tanning process in leather factories. Its use as a surfactant is probably the main cause of the foam on the surface of the Rába as well. Consequently, the regulation of its emission does not fall under the scope of either of the directives, meaning that there is no legal obligation based on the directives to limit the emission of naphthalene-1.5-disulphonate to the Rába.

Nevertheless, the New Dangerous Substances Directive can contribute greatly to the protection of the rivers against pollution from other industries and it can even have relevance concerning the tanning industry, as leather factories use several chemicals besides naphthalene-1.5-disulphonate, for instance biocides which are included in List II.<sup>185</sup>

#### *IPPC Directive (2008/1/EC)*

The IPPC Directive was adopted in 1996 (96/61/EC) and was amended several times, which necessitated its codification under a new directive (2008/1/EC). The IPPC Directive creates a framework for integrated pollution prevention and control arising from certain industrial activities listed in Annex I.<sup>186</sup> The novelty of the directive is that it aims to prevent the shift of pollution of different elements of the environment by requiring that the permit granting the operation of the installation should lay down protection measures for air, water and land.<sup>187</sup>

The permits have to establish emission limit values for pollutants which are likely to be discharged by the installation.<sup>188</sup> Annex III lists those main pollutants which have to be particularly taken into account. The emission limit values have to be based on the best available techniques (BAT) defined by Article 2.12.<sup>189</sup> When determining what the best available technique is regarding a certain operation, the authorities have to take into account the considerations listed in Annex IV and the BAT reference documents (BREF) prepared by the IPPC Bureau of the Institute for Prospective Technological Studies, an institute of the European Commission's Joint Research Center.<sup>190</sup> The BREF documents contain techniques to take into consideration when determining the BAT.<sup>191</sup>

The directive follows the approach of the WFD when it considers BAT as a minimum level, which has to be complemented with additional measures, if there is a stricter environmental quality standard in place.<sup>192</sup>

Additionally, the permits have to contain measures to minimize transboundary pollution and the potentially affected Member State has to be involved in the decision making and provided with the necessary information.<sup>193</sup>

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<sup>184</sup> BREF document for the Management of Tailings and Waste-Rock in Mining Activity (2004). Table 3.34.

<sup>185</sup> BREF document for the Management of Tailings and Waste-Rock in Mining Activity (2004), p. i).

<sup>186</sup> Article 1.

<sup>187</sup> Preamble paragraphs 8-9, Article 9.

<sup>188</sup> Article 9.3.

<sup>189</sup> Article 2.11 defines the term as „*the most effective and advanced stage in the development of activities and their methods of operation which indicate the practical suitability of particular techniques for providing in principle the basis for emission limit values designed to prevent and, where that is not practicable, generally to reduce emissions and the impact on the environment as a whole*”.

<sup>190</sup> <http://eippcb.jrc.es/>.

<sup>191</sup> <http://eippcb.jrc.es/reference/>.

<sup>192</sup> Article 10.

Besides the emission limits determined by the authorities, the directive calls on the Council and the European Parliament to set up Community emission limit values for certain installations listed in Annex I and for the substances listed in Annex III as a minimum level of protection.<sup>194</sup> In the absence of such legislation, the emission limit values of already existing Community legislation should serve as a minimum standard. Of course the operation permits can determine stricter standards if necessary.

Relevance for transboundary pollution:

Installations similar to the Baia Mare mine and the Austrian leather factories fall under the scope of the IPPC directive.<sup>195</sup> Unfortunately though, in the concrete cases the applicability of the directive is rather limited because Romania was not yet a Member State at the time of the spill, therefore it was not bound by the directive.<sup>196</sup>

Furthermore, the requirements of the directive were to be applied from 30 October 1999 only by new installations, whereas already operating installations had an eight year transition period during which they could keep operating under their existing permits.<sup>197</sup> With regard to the Rába case, this suggests that the permits of the polluting Austrian leather factories had to be in line with the IPPC directive only from 30 October 2007, seven years after the foaming of the river started.

In the future however, the directive is expected to strongly contribute to the prevention and the control of transboundary river pollution. Firstly, because Hungary as a potentially affected state will be able to participate in the process of the issuing of permits, pursuant to Article 18 and Annex V and the permitting authority will have to consider its comments when making a decision.

Secondly, pursuant to Article 9.4, the application of the BAT should result in emission limit values which prevent large scale and transboundary pollution. For the leather industry, the IPPC Bureau has already prepared the BREF document which contains among others recommendations for the substitution of the polluting substances and waste reduction, including the substitution of surfactants and biocides.<sup>198</sup> It has to be noted though that naphthalene-1.5-disulphonate is listed as a tanning agent which can be used in a tannery, not one which should be substituted. Similarly, the BREF document for the Management of Tailings and Waste-Rock in Mining Activity has been developed determining the „good practice” to follow by the mining industry.<sup>199</sup> The exceptionally lengthy document provides general principles of good management and describes the techniques to use in order to prevent and control emissions.

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<sup>193</sup> Article 9,4,18.

<sup>194</sup> Article 19.

<sup>195</sup> The production of the polluting leather factories exceed the 12 tonnes of finished products per day required by Annex I, Article 6.3.

<sup>196</sup> It has to be noted that the implementation of the aquis communautaire is a prerequisite for the accession to the EU, therefore candidate countries are motivated to meet European regulation.

<sup>197</sup> Article 5.

<sup>198</sup> BREF document for Tanning of Hides and Skins (2003). Executive Summary, 4.1.1.

BREF document for the Management of Tailings and Waste-Rock in Mining Activity (2004).

Thirdly, Annex III of the directive lists cyanide as a main pollutant, which means that a Community emission limit value should be established for its discharge. The directive 2006/21/EC on the management of waste from the extractive industries has fulfilled this duty and determined the maximum level of cyanide concentration in tailings ponds. For new installations the permissible level is 50 ppm which will gradually decrease to 10 ppm by 2018.<sup>200</sup> In case of huge installations such as the Rosia Montana mine would be, even the allowed limit seems very high for many of the opponents of the mine. It has to be kept in mind that the limit values of the directive are only minimum standards and the Member States, in this case Romania, can decide for the complete ban of the use of cyanide.<sup>201</sup> Accordingly, a proposal modifying the Mining Law no. 85/2003 of Romania has been prepared which would include a new paragraph prohibiting mining activity based on cyanide technologies,<sup>202</sup> But it is to be doubted whether the proposal will ever be adopted considering the strong lobbying activity of the mining industry.<sup>203</sup>

### Environmental quality standards

The second element of the WFD's combined approach is the establishment of environmental quality standards. The significance of these standards is that they concentrate on the total pollution of the water by limiting the concentration of certain pollutants in the rivers regardless the source of the pollution.

#### *Environmental Quality Standards Directive 2008/105/EC (EQS Directive)*

The purpose of the EQS Directive is twofold. On the one hand, it amends the list of priority substances and priority hazardous substances of Annex X of the WFD, on the other hand and at the same time, it determines environmental quality standards for those substances. The list of priority substances was first prepared by the Commission and inserted to the WFD by the Decision 2455/2001.<sup>204</sup> The EQS Directive carried out minor changes, mainly refinements on the list, which includes 33 priority substances, 19 of which are marked as hazardous priority substances.<sup>205</sup> Pursuant to Article 16.4 of the WFD, the list has to be reviewed by the Commission - and if necessary amended - every four years. The review must cover the possible inclusion of the substances listed by Annex III of the EQS Directive in the list of priority substances.

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<sup>200</sup> Article 13.6. ppm = parts per million.

<sup>201</sup> EC Treaty Article 176 provides the possibility for Member States to adopt more stringent national measures if they are compatible with the EC Treaty.

<sup>202</sup> Legislative proposal to extend article no. 4 of the Mining Law no. 85/2003. New paragraph 4 of Article 4: *"Mining activity based on cyanide technologies is prohibited at any stage of gold and silver extraction and also at any stage of wastes processing and enrichment. This prohibition also applies to the use cyanide compounds in any percentage as well as to its use in combination with other methods for waste processing and enrichment."* Available at: [www.bancyanide.ro](http://www.bancyanide.ro) > Law proposal.

<sup>203</sup> The latest development is that the Deputy Chamber of the Romanian Parliament returned the proposal to the Industry Commission for re-examination in April 2008. See [www.bancyanide.ro](http://www.bancyanide.ro) > Law proposal.

<sup>204</sup> Decision 2455/2001/EC of the European Parliament and of the Council of 20 November 2001, establishing the list of priority substances in the field of water policy and amending Directive 2000/60/EC [Official Journal L331 of 15.12.2001].

<sup>205</sup> Annex II.

Besides determining the list, the EQS Directive also assigns two types of environmental quality standards to each priority substance. Firstly, to ensure the steady high quality of the waters, it determines the maximum annual average quantity of the pollutant concerned. This threshold can be exceeded occasionally but it has to be met over the period of one year. Secondly, to avoid pollution peaks, the directive sets the maximum allowable concentration for each pollutant.<sup>206</sup>

By determining the priority substances, the directive specified those pollutants whose reduction or cessation requires action at Community level. Setting up environmental quality standards for other pollutants is the competence of the Member States, therefore they can set up thresholds for the concentration of certain substances if they deem it necessary.<sup>207</sup>

The problem of establishing environmental quality standards at a Community level is that the riparian countries of transboundary rivers are exposed to pollution from upstream countries (as in the case of Hungary), and therefore it is not only up to them whether they can meet the standards or not. To overcome this problem, Article 6 of the directive exempts Member States from breaching their obligations arising from the directive if they can prove that they exceeded the thresholds due to pollution originating outside their jurisdiction, and therefore they were unable to take effective measures to comply with the directive and they applied the coordination mechanisms set out in Article 3 of the WFD. It has to be pointed out, that as environmental quality standards are used to determine the chemical status of the water bodies under the WFD, Article 6 of the EQS Directive provides exemption regarding the chemical status of the water, but not the ecological status. The WFD does not offer sufficient solution for downstream Member States whose waters cannot reach good ecological status due to transboundary pollution.

Relevance for transboundary pollution:

For Hungary, the directive is a major step towards the effective protection of its rivers, as neighbouring countries are required to meet the standards and limit their total emissions of priority substances to a level which does not exceed the thresholds established by the EQS Directive. Unfortunately, in the particular case of the Rába, the directive did not meet the expectations of Hungary: despite lobbying for its inclusion on the list, naphthalene-1.5-disulphonate did not become a priority substance.<sup>208</sup>

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<sup>206</sup> Annex I; <http://europa.eu/scadplus/leg/en/lvb/l28180.htm>.

<sup>207</sup> Preamble 11.

<sup>208</sup> Even though naphthalene is included in the list of priority substances, its compounds are not. In the first reading of the codecision procedure it was proposed to include naphthalene-1.5-disulphonate as a priority substance to Annex X of the WFD, but it was not accepted. (*Report 3 April 2007 on the proposal for a directive of the European Parliament and of the Council on environmental quality standards in the field of water policy and amending Directive 2000/60/EC, Amendment 65*).

In the legislative resolution of the Parliament naphthalene-1.5-disulphonate is not listed as a priority substance but it is included in the list as a substances which has to be reviewed later to determine whether its identification as a priority substance is needed (*European Parliament legislative resolution of 22 May 2007 on the proposal for a directive of the European Parliament and of the Council on environmental quality standards in the field of water policy and amending Directive 2000/60/EC*).

During the second reading of the proposal, naphthalene-1.5-disulphonate was withdrawn even from the list of substances to be reviewed. (*European Parliament legislative resolution of 17 June 2008 on the Council common position with a view to the adoption of a directive of the European Parliament and of the Council on environmental quality standards in the field of water policy and amending Directives 82/176/EEC, 83/513/EEC, 84/156/EEC, 84/491/EEC, 86/280/EEC and 2000/60/EC*).

Similarly, cyanide is not on the list either (but at least was included in the list of Annex III and will be subject of a review procedure). Nevertheless, the directive eliminates potential risks of transboundary pollution by regulating the most dangerous substances. Setting thresholds for other pollutants and convince other Member States to do the same to avoid transboundary pollution will largely depend on the cooperation of the Member States.

The lack of Community EQS for naphthalene-1.5-disulphonate and cyanide means that these substances are not taken into account when determining the chemical status of a body of water. That means that in case of transboundary pollution, the downstream Member State does not have to rely on the exemption clause of Article 6 of the EQS Directive because the pollution falls outside the scope of the WFD. It also means that technically a body of water can reach good chemical status even if it is as polluted as the Rába was during its foaming. On the other hand the WFD requires not only the chemical but also the ecological status of the water to be good by 2015, but a water as disturbed as the Rába was could hardly meet the requirements of good ecological status. This emphasizes again the problem for downstream Member States failing to reach good ecological status due to pollution coming from abroad.

The Danubian countries already showed their willingness to cooperate in agreeing that in the Danube basin, zinc, copper, chrome and arsenic are also priority hazardous substances even though they are not included in the list of the WFD. They agreed to implement the environmental quality standards for adopted by the ICPDR.<sup>209</sup> According to the Programmes of Measures of the draft Hungarian RBMP, similar agreement was reached on cyanide.<sup>210</sup>

### **River basin management**

One of the greatest novelties of the WFD is that it acknowledges that rivers constitute an interconnected system in river basins, therefore, riparian countries have to cooperate and manage their transboundary rivers in accordance with the same standards in order to sustain the quality of their waters.

#### River basin districts

To bring the river basin theory into practice, the directive calls on Member States to identify river basins on their territory and assign them to river basin districts which then become the units of the river management. For transboundary river basins, an international river basin district has to be assigned and the Member States sharing the basin have to appoint an international body to coordinate their efforts and perform the duties arising from the directive.

The entire river basin of the Danube - and therefore the whole territory of Hungary - belongs to one transboundary river basin district. The riparian Member States used the possibility provided by Article 3.6 to designate an already existing international body as competent authority, and appointed the International Commission for the Protection of the Danube River. The commission was originally established for the purposes of the Danube Protection Convention. Authorizing the same body for the two tasks is rather practical because the

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<sup>209</sup> Draft Hungarian River Basin Management Plan (2009) p. 150; [www.icpdr.org/icpdr-pages/hazardous\\_substances.htm](http://www.icpdr.org/icpdr-pages/hazardous_substances.htm).

<sup>210</sup> Draft Hungarian River Basin Management Plan (2009) p. 150.



riparian Member States, just like the European Community are all part of the Danube Protection Convention, and it is helpful that one body with expertise and experience coordinates the actions of the riparian countries both under international and European law. By allowing the designation of an international body, the WFD linked international, supranational and national water law together, with the intention to provide an adequate response for the challenges of the complex water problems in Europe.<sup>211</sup>

Although not all Danubian countries which are party to the Danube Protection Convention are members of the EU (Bosnia Herzegovina, Montenegro, Serbia, Ukraine, Moldova and Croatia are not legally bound by the WFD), they all committed themselves to cooperate in the implementation of the directive.<sup>212</sup>

#### River basin management plans

To successfully manage the river basin districts, Member States have to prepare river basin management plans by 2009 in which they have to describe and evaluate the existing legislation, localise the deficiencies, and indicate the measures that have to be taken in order to reach the overall goals.<sup>213</sup> To be able to integrate all the three pillars of sustainable development into the management, the plans have to also include an analysis of the natural character of the water, and a review of the environmental impact of human uses and an economic analysis of the water.<sup>214</sup>

To make the plans more effective, Member States are required to involve the public in the preparation and the reviewing of the plans. The participation of the local public can be useful, as it should be able to provide feedback based on real life experiences.<sup>215</sup>

Further, Member States have to establish programmes for the monitoring of the water status, in order to get a comprehensive overview of the status of the rivers.<sup>216</sup> Besides the monitoring programmes, Member States also have to develop a programme of measures, which has to include basic and supplementary measures necessary to achieve good water status.<sup>217</sup>

#### Flood Protection Directive 2007/60/EC

Finally, reference can be made to the Flood Protection Directive, because as the Baia Mare accident showed, severe weather conditions can cause serious industrial accidents resulting in the contamination of transboundary waters with dangerous chemicals. The directive aims to take into account the increasing occurrence of floods due to human activities and climate change, and therefore requires member States to prepare preliminary flood risk assessment in each river basin district defined by the WFD by the end of 2011. The assessment has to take into account the impacts of climate change on the likelihood of floods.<sup>218</sup> By 2015,

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<sup>211</sup> Reichert (2005) p. 472.

<sup>212</sup> Outline of the DRBP (2008) p. 2.

<sup>213</sup> Adshead (2004) p. 6.

<sup>214</sup> *Ibid.*

<sup>215</sup> Popovics (2007) p. 535.; Article 14.

<sup>216</sup> Article 8.

<sup>217</sup> Article 11.

<sup>218</sup> Art. 4.

Member States also have to prepare flood risk management plans including measures to reduce the occurrence and the adverse effects of floods.<sup>219</sup> If the new Rosia Montana gold mine opens, these plans may help to avoid the failure of the tailings dam in case of high water level.

### **III.2.2. Waste legislation**

The comprehensive regulation of the WFD is complemented by another sectoral branch of European law, namely waste law. The significance of waste law lies in the fact that transboundary pollution is very often caused by the discharge of waste water into the rivers.

The core of waste legislation in force is the Directive 2006/12/EC on waste (Waste Directive), Directive 2006/21/EC on the management of waste from extractive industries (Mining Waste Directive), Directive 91/689/EEC on hazardous waste (Hazardous Waste Directive) and Decision 2000/532/EC establishing a list of wastes.<sup>220</sup>

#### **Waste Directive (2006/12/EC)**

The Waste Directive is similar to the WFD in the sense that it provides a framework for the regulation of the sector by defining the key terms and determining the objective of the regulation, which is firstly the prevention and reduction of waste production, secondly the recovery of the waste or its use as energy, and thirdly the safe disposal of the waste. The directive obliges Member States to take necessary measures to reach the objectives, in particular, by developing waste management plans.

The directive does not contain provisions which specifically address transboundary pollution. It only requires the cooperation of Member States in drawing up waste management plans.<sup>221</sup> On the other hand, following from the interconnectedness of rivers, waste discharged to the water will inevitably affect downstream countries, and therefore it is still important to discuss the waste legislation.

An interesting feature of the directive is that it excludes certain types of waste from its scope „where they are already covered by other legislation”.<sup>222</sup> For the example cases of this study, this narrowed scope has relevance. In the Rába case, for instance, the waste water of the factories contained the pollutants which caused the foaming of the river. Waste water is on the list of waste excluded from the scope of the directive if covered by other regulation.<sup>223</sup> Accordingly, it has to be studied whether any legislation exists on the field. At present, the

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<sup>219</sup> Art. 7. 2-3.

<sup>220</sup> Directive 2006/12/EC of the European Parliament and of the Council of 5 April 2006 on waste; Directive 2006/21/EC of the European Parliament and of the Council of 15 March 2006 on the management of waste from extractive industries; Council Directive 91/689/EEC of 12 December 1991 on hazardous waste; Commission Decision 2000/532/EC of 3 May 2000 replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste.

<sup>221</sup> Article 7.

<sup>222</sup> Article 2.b).

<sup>223</sup> Article 2.b) iv).

urban waste water directive is the only specific legislation on the matter which covers not only urban waste water but also waste water produced by certain industries listed in Annex III.<sup>224</sup> The tanning industry, however, is not included in the list, and therefore the waste directive remains the regulator of waste water from the leather factories.

For gold mines (in the case of an accident similar to the one in Baia Mare), the narrowed scope of the directive has more relevance. Article 2.b)ii) excludes „waste resulting from prospecting, extraction, treatment and storage of mineral resources and the working of quarries” from the scope of the directive. The slurry containing cyanide and heavy metal particles as a result of the extraction and the treatment of gold, falls under this provision if there is legislation covering the matter. As the Mining Waste Directive covers exactly the activities mentioned by Article 2.b)ii) of the Waste Directive, waste water of gold mines does not fall under the waste directive but under the Mining Waste Directive.

It has to be noted that at the time of the cyanide spill at Baia Mare, Council Directive 75/442/EEC of 15 July 1975 on waste was still in force, and even though in 1991 it was amended so that waste from the extraction, treatment and storage of mineral resources was excluded from its scope if covered by other Community legislation. At the time of the accident there was no such legislation.<sup>225</sup> Unfortunately, the directive had little relevance at the time as Romania was not a Member State at that time.

### **Mining Waste Directive (2006/21/EC)**

The Mining Waste Directive was adopted in 2006, as a follow-up to the prior mining accidents probably referring to the ones at Baia Mare and Baia Borsa.<sup>226</sup> The objective of the directive is to lay down minimum requirements for the waste management in the extractive industry in order to prevent and reduce the adverse effects on human health and the environment.<sup>227</sup>

Besides the general requirements to ensure that extractive waste is managed without endangering human health and harming the environment, the directive imposes the obligation on Member States to draw up waste management plans and determines the minimum elements such plans should contain.<sup>228</sup> Furthermore, it requires every operator to obtain a permit, which can be issued by the competent authority if the operator meets the requirements of the directive and the waste management plan of the Member State.<sup>229</sup>

The directive recognizes that certain facilities pose potential risks to health and environment, and therefore imposes special obligations on Member States with regard to these so-called ‘category A facilities’. Pursuant to Annex III, a facility belongs to category A if a failure in its operation (for instance the bursting of a dam) can cause a major accident, or if it contains hazardous waste or dangerous substances classified by the relevant legislation. Gold mines definitely fall into the category, as the tailings of these mines not only contain dangerous

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<sup>224</sup> Council Directive 91/271/EEC of 21 May 1991 concerning urban waste-water treatment.

<sup>225</sup> REC (2001) p. 33.

<sup>226</sup> Preamble 1.

<sup>227</sup> Article 1.

<sup>228</sup> Article 5.

<sup>229</sup> Article 7.

substances and hazardous waste but the failing of a tailings dam can cause inestimable harm to the environment. In the case of category A facilities, the major accident hazards have to be identified, the operators have to develop a safety management system and create an internal emergency plan, which is complemented by an external emergency plan prepared by the competent authority.<sup>230</sup>

An advantage of the Mining Waste Directive compared to the Waste Directive is that it recognizes the possible transboundary nature of pollution caused by waste and calls on Member States to provide information on the facility to another Member State which could be potentially affected in case of an accident, prior to granting a permit.<sup>231</sup> The other Member State then has the right to comment. In case of an accident, all the information provided by the operator to the competent authority on how to minimize the consequences on health and the environment has to be immediately forwarded to the affected Member State.<sup>232</sup>

### **Hazardous Waste Directive (91/689/EEC)**

The last instrument of waste legislation relevant to transboundary pollution arising from waste discharge to rivers is the Hazardous Waste Directive. The directive in its preamble recognizes that „*the correct management of hazardous waste necessitates additional, more stringent rules to take account of the special nature of such waste*”.

The Annexes of the directive contain the categories, constituents and the properties of hazardous waste, based on which Commission Decision 2000/532/EC establishes a catalogue of such wastes by marking them on a list of wastes.<sup>233</sup>

The provisions of the directive aim to impose obligations on Member States which would make the handling of hazardous waste safer. Accordingly, Member States have to ensure, for instance, that hazardous wastes are identified and dealt with separately, and that the disposal operations obtain a permit and are regularly subject of inspections.<sup>234</sup>

The directive does not address the problem of the possible adverse transboundary effects of dealing with hazardous waste but the stricter rules can help preventing such problems. The directive has relevance to gold mining as sludge containing cyanide or zinc for example is hazardous waste, therefore goldmines have to meet the requirements of the directive.<sup>235</sup> On the other hand, the categories of waste from leather industries are not marked as hazardous, with only one exception.<sup>236</sup>

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<sup>230</sup> Article 6.

<sup>231</sup> Preamble 34.

<sup>232</sup> Article 16.

<sup>233</sup> Commission Decision 2000/532/EC of 3 May 2000 replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste.

<sup>234</sup> Article 2-3.

<sup>235</sup> Annex IB. 27; Decision 2000/532/EC Index 11.

<sup>236</sup> Decision 2000/532/EC Index 04. Only the degreasing waste containing solvents without a liquid phase is marked as hazardous waste.

### **III.2.3. Legislation concerning the prevention of transboundary pollution**

#### **Seveso II Directive (96/82/EC)**

The objective of the Seveso II Directive is „*the prevention of major accidents which involve dangerous substances, and the limitation of their consequences for man and the environment*”.<sup>237</sup> Its predecessor, the Seveso I Directive (82/501/EEC) was adopted after the accident in Seveso, Italy in 1976 when kilogrammes of highly toxic dioxin, lethal to humans even in microgrammes, was released to the air and contaminated a large area of land after an accident in a chemical plant in Seveso.<sup>238</sup> The directive has been amended several times, especially to broaden its scope after other serious accidents, such as the Sandoz accident in 1986, which in consequences was very similar to the Baia Mare spill.<sup>239</sup>

In 1996 the Seveso II Directive was adopted, replacing the old Seveso I Directive. The new legal instrument implemented the UNECE Convention on the Transboundary Effects of Industrial Accidents - to which the European Community is a party - but it goes beyond the Convention by providing a framework for accident prevention.<sup>240</sup> The new directive has an extended scope compared to the old directive and contains requirements on accident prevention, emergency planning, land use planning, information provision to Member States, and it calls on Member States to establish a system of inspections to control the operators.<sup>241</sup>

With regard to transboundary pollution, the directive does not go beyond the implementation of the UNECE convention. It obliges Member States to „*provide sufficient information to potentially affected Member States*” and to include into their emergency plans measures arranging „*for the provision of information to the emergency services of other Member States in the event of a major accident with possible transboundary consequences*”.<sup>242</sup>

Unfortunately, the Seveso II Directive did not apply in the Baia Mare case. Not only because Romania was not a Member State yet, but also because at the time the scope of the directive did not cover mining operations: in fact they were explicitly excluded from the application of the directive.<sup>243</sup> As a result of the accident the European Community recognized the danger tailing ponds and dams impose and extended the scope of the directive by covering chemical and thermal processing mines and storage related to them

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<sup>237</sup> Article 1.

<sup>238</sup> <http://ec.europa.eu/environment/seveso/index.htm>;

Council Directive 82/501/EEC of 24 June 1982 on the major-accident hazards of certain industrial activities.

<sup>239</sup> After an accident in the Sandoz warehouse in Basel, Switzerland, large quantities of water contaminated with mercury and other dangerous substances was discharged to the transboundary river Rhine and caused an environmental catastrophe in the aquatic environment.

<http://ec.europa.eu/environment/seveso/index.htm>.

<sup>240</sup> REC (2001) p. 4.

<sup>241</sup> <http://ec.europa.eu/environment/seveso/index.htm>.

<sup>242</sup> Article 13.2; Annex IV.2.

<sup>243</sup> Article 4.e).

which involves dangerous substances listed by Annex I of the directive.<sup>244</sup> If the Member States sufficiently implement the directive, it may prevent similar accidents in the future.

### **Environmental Impact Assessment Directive and Strategic Environmental Assessment Directive**

The assessment of the possible transboundary effects of a project or plan on the environment is regulated by two directives. The EIA Directive (85/337/EEC) applies to projects of a certain size, nature or location whereas the SEA Directive (2001/42/EC) relates to plans, programmes which set the scene for decisions on projects.

Article 7 of the EIA directive implements the Espoo Convention and requires the involvement in the EIA procedure of any Member State likely to be affected, if it so requests. Meanwhile Article 7 of the SEA Directive on transboundary consultations is repeated almost word for word in Article 9 of the 2003 Kiev Protocol on Strategic Environmental Assessment of the Espoo Convention.

Since there is no substantive difference between the EIA and the SEA directives and the Espoo Convention and its protocol, the same can be said about their relevance concerning the rivers of Hungary (please refer to the section on international law above).

One very important difference is that the 2003 Kiev Protocol is not in force yet, as so far only ten states have ratified it instead of the required fourteen which means that it does not impose legal obligations on the countries in the region.<sup>245</sup> On the other hand the SEA Directive is binding on Member States, therefore it provides enforceable legal rights for countries likely to be affected (which Hungary often is), to participate in the preparation of the impact assessments and advocate its interests. For the rivers of Hungary, the Kiev Protocol (once in force) will have limited relevance since all Hungary's upstream riparian neighbours are Member States of the European Union, except for the Ukraine. Both Hungary and the Ukraine have signed but not yet ratified the Protocol.<sup>246</sup> For transboundary consultation on plans and programmes to become legally binding obligations for its upstream riparian neighbours, the Protocol has to enter into force and those countries have to ratify it.

Concerning projects, the Espoo Convention is ratified by the Ukraine as well, therefore it has the same legal obligations to involve Hungary in the EIA procedures of projects likely to have transboundary impact as the Member States have based on the EIA Directive. The difference is that the directive has to be implemented into national law which is complemented by the more developed enforcement mechanisms of the EC, making the directive more effective.

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<sup>244</sup> Directive 2003/105/EC of the European Parliament and of the Council of 16 December 2003 amending Council Directive 96/82/EC on the control of major-accident hazards involving dangerous substances Preamble 3; Article 1.1.

<sup>245</sup> Kiev protocol (2003) Article 24; [www.unece.org](http://www.unece.org) > Environment > impact assessment > SEA Protocol > Status of Ratification.

<sup>246</sup> [www.unece.org](http://www.unece.org) > Environment > impact assessment > SEA Protocol > Status of Ratification.

### **III.2.4. Findings**

After reviewing the relevant legislation of the European Community it can be concluded that it provides a comprehensive and detailed legal protection against transboundary river pollution at least for those pollutants which fall under the scope of the relevant directives.

The water legislation, in particular the WFD, constitutes the centre of the regulation complemented by the regulation on waste and some horizontal directives.

Transboundary pollution is prevented on a multi-level scheme. Firstly, by preventing pollution of waters in general by setting up emission limits, and quality standards on the one hand and laying down minimum requirements for the operation of facilities on the other. The combined approach of emission controls and environmental quality standards to increase the effectiveness of pollution prevention is a great novelty of the WFD. It is possible however that due to non compliance with these standards, transboundary pollution occurs. The EQS Directive provides a partial solution to this problem, by exempting the victim state from its obligations under the directive.<sup>247</sup> On the other hand, the EQS directive lays down only environmental quality standards with the aim of achieving good chemical status for surface waters. Consequently, the exemption applies only to the chemical status of the rivers, meaning that for the achievement of good ecological status, the downstream state still depends on the behaviour of its upper riparian neighbours. The WFD does not provide sufficient solutions for this problem.

Secondly, the planning and the implementation of these combined measures to prevent pollution is facilitated by a basin wide water management scheme outlined by the WFD.

Thirdly, transboundary adverse effects are intended to be prevented by involving the potentially affected countries into the decision making, providing them with information and taking their comments into consideration when making a decision.

Finally, in the event of pollution, the relevant Community legislation requires member States to cooperate to reduce the adverse effects as much as possible.

#### **Findings concerning the Rába case**

Nevertheless, Community legislation does not provide protection for cases such as the foaming of the Rába river. The New Dangerous Substances Directive does not identify naphthalene-1.5-disulphonate as a dangerous substance, and the substance does not appear on the list of priority substances and priority hazardous substances of Annex X of the WFD. Consequently, neither emission standards nor environmental quality standards have been set to reduce its concentration in European rivers based on Community legislation. Further, naphthalene-1.5-disulphonate is not even mentioned by the BREF document for the tanning industry as one which should be substituted with a less polluting substance. On the contrary, it is recommended by the document.<sup>248</sup> The authorities when issuing a permit for an IPPC installation take into account the recommendations of the BREF documents when determining the best available technology, therefore it is likely that the naphthalene-1.5-

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<sup>247</sup> Article 6.

<sup>248</sup> BREF document for Tanning of Hides and Skins (2003), Executive Summary, 4.1.1.

disulphonate will continue to be used in the future in leather factories and since its emission is not regulated at Community level, and even its discharge cannot be prevented by the means of European law. Furthermore, the Waste Directive regulating the discharge of waste water from leather factories is a framework directive determining only the objectives of waste water management and requiring the cooperation of Member States in waste management, but it does not contain detailed regulation on waste water treatment. Nevertheless, in case of the planning of a new installation, Hungary could participate in the EIA procedure and lobby for the installation of appropriate filtering devices as best available technology.

Regarding the Rába case it can be concluded that European law does not provide sufficient protection against discharging naphthalene-1.5-disulphonate into the rivers. The reason for it is that European legislators do not find this substance dangerous enough to regulate it at a Community level. Based on the subsidiarity principle in Article 5 of the EC Treaty the Community leaves the regulation in the competence of the Member States, and therefore it is up to Austria and Hungary to cooperate in resolving the problem. The next section will examine how international cooperation in general can complement legal protection and it will also discuss whether the joint efforts of Austria and Hungary led to any solution.

### **Findings concerning the Baia Mare case**

The consequences of the Baia Mare accident were more severe than the ones of the foaming of the Rába. The substances contaminating the rivers were much more dangerous for human health and for the environment. Although Romania was not an EU member at the time of the spill, the operation of a similar gold mine in the territory of the EU would be strictly regulated by European law. First of all, the cyanide and the heavy metals contained by the slurry of gold mines are on List II of the New Dangerous Substances Directive, which means that the competent authority has to lay down standards for their emission when authorizing the operation.

Secondly, cyanide is listed as a main pollutant in Annex III of the IPPC Directive, which identifies those substances for which emission limit value has to be established at Community level. For gold mines, the Mining Waste Directive (2006/21/EC) fulfilled this requirement and determined the maximum level of cyanide concentration in tailings ponds.<sup>249</sup> For pollutants not listed in the IPPC directive, the national authority issuing the permit for operation has to set emission limit values based on the best available technology.

Thirdly, cyanide is currently not on the list of priority substances of the WFD, therefore the EQS Directive does not determine EQS for its presence in the environment. However, its inclusion to the list will be reviewed by January 2011,<sup>250</sup> and thus there is hope that a Community EQS for cyanide will be developed.

Furthermore, European law, especially the EIA Directive and the Mining Waste Directive, provide many guarantees for downstream countries like Hungary to have their interests taken into account when authorization is given to gold mines, and to be informed fully on those installations. As the case of the Rosia Montana mine shows, it is in the best interest of

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<sup>249</sup> Article 13.6.

<sup>250</sup> Article 8.



a downstream country to take the opportunity and to get fully involved in the planning process. Once the operation is authorized, the Seveso Directive provides further guarantees that those countries who could be affected by a potential accident receive sufficient information on the installation.

It seems that Community law provides stronger protection for downstream countries against transboundary industrial pollution if the potential polluter is a gold mine than if it is a leather factory. This outcome is not surprising, as gold mines constitute a much more serious threat to the environment than the tanning industry; the substances used in the gold production process are far more dangerous to the environment than the ones used in tanneries. It is troublesome however that only in the more severe cases of transboundary pollution can a downstream country count on the protection of European law. In other cases, it is up to the good will of the upstream country to prevent pollution and cooperate with its downstream neighbours to eliminate the consequences if pollution still happens.

#### **IV. COOPERATION OF THE RIPARIAN COUNTRIES IN THE DANUBE BASIN**

The previous sections of this study have shown that Danubian countries have to cooperate in order to protect the quality of their rivers since these rivers constitute an interconnected system where pollution discharged into the water upstream can cause transboundary pollution as the water flow does not respect the states' borders.

This study has also shown how riparian states cooperated in creating legal obligations in both international and European law to protect their rivers. A further step in cooperation is compliance with legal obligations. Therefore, one of the aims of this section is to study how the riparian states have implemented the various legal obligations. To examine the implementation of each legal instrument presented by the previous sections goes beyond the scope of this study. Focus will be on the two most relevant multilateral legal instruments from a Danubian perspective: the Danube River Protection Convention and the WFD. The implementation of both legal instruments will be presented mainly through the work of the International Commission for the Protection of the Danube River (ICPDR), as it is the responsible body for implementation under both legal instruments. Where possible, Hungary's contribution to the cooperation will also be presented.

Basin wide cooperation is essential to carry out an effective river basin management but the bilateral cooperation of neighbouring riparian states have equal importance, therefore Hungary's efforts to cooperate with its neighbours (with the financial help of the EU) to prevent transboundary pollution will be discussed.

Bilateral cooperation is necessary in cases where there is an actual pollution problem with transboundary effects causing ecological, social and economic damage. The foaming of the Rába is a good example for such transboundary pollution. In the Rába case, European law does not provide sufficient solution and the affected countries have to resolve the problem themselves. For this reason, the study will examine the bilateral cooperation of Hungary and Austria in the Rába Task Force, which was set up to find a solution for the foaming problem, and the Hungarian-Austrian Water Management Committee established to implement the 1959 Treaty between the Republic of Hungary and Austria on the water management of the border region will be discussed.

##### **IV.1. Achievements of the riparian states under the Danube River Protection Convention**

###### **Joint Action Programme (JAP)**

Since its establishment, the ICPDR carried out many projects aiming to implement the convention. The most comprehensive one was the JAP, which specified various measures to be taken between 2001 and 2005 to achieve the objectives of the convention, including measures for the reduction of water pollution.

The programme resulted among others in the establishment of the Trans-National Monitoring Network (TNMN). The TNMN aims to implement Article 9 of the convention requiring cooperation in the field of monitoring and assessment. The monitoring network was set up to

provide an overall picture of the water quality and the pollution loads in the major tributaries of the Danube.<sup>251</sup> The network uses data nationally assessed by 79 monitoring locations and it is operated by the Monitoring and Assessment Working Group of the ICPDR.<sup>252</sup> The assessment of the data coming from all the participating countries contributes greatly to the adoption of appropriate policies to reduce pollution.<sup>253</sup>

Another achievement of the JAP was the establishment of the Accident Emergency Warning System (AEWS). The purpose of the AEWS is to alert authorities of downstream countries when there is a threat of transboundary water pollution. The international warning messages sent by the AEWS help the cooperation of the authorities of different countries to quickly respond to pollution threats. It was activated at the time of the Baia Mare accident as well.<sup>254</sup>

Regarding industrial point sources, pollution reduction under the JAP has been achieved by developing an emission inventory, a basin-wide data base covering all industrial discharges over a certain threshold, and by preparing recommendations for the best available techniques for industrial waste water discharges.<sup>255</sup> These measures themselves would not result in pollution reduction, but they complement the implementation of EC directives, in particular the IPPC directive. The recommendations of the ICPDR on the best available techniques take the BREF documents of the European Commission into consideration.<sup>256</sup>

The implemented measures for pollution control on an international level were accompanied by national investment programs for the industrial sector. In Austria for example the investments concerned the modernization of waste water treatment and waste water collecting systems.<sup>257</sup> In Hungary, two projects were carried out by 2005, resulting in significant pollution load reduction.<sup>258</sup>

### **Danube Black Sea Task Force (DABLAS)**

DABLAS was set up in 2001 with the objective to develop financial mechanisms for the pollution reduction investment projects in the wider Black Sea region. The task force provides a platform for the countries in the region, the International Financing Institutions and other donors to enhance cooperation for the protection of the waters.<sup>259</sup>

### **Danube Regional Project (DRP)**

The DRP was launched in 2001 to foster regional cooperation in the Danube river basin by supporting the development of national policies for pollution reduction in the form of capacity building and technical assistance. The DRP is part of the Global Environmental Facility's (GEF) Strategic Partnership for Nutrient Reduction in the Danube/Black Sea Basin and it is

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<sup>251</sup> [www.icpdr.org](http://www.icpdr.org) > Issues > Water quality > TNMN.

<sup>252</sup> Terms of Reference of the Monitoring and Assessment (Water Quality) Expert Group (MA EG) of the ICPDR. No:IC/104-Rev1. 11.12.2006. p. 1.

<sup>253</sup> *Ibid.*

<sup>254</sup> [www.icpdr.org](http://www.icpdr.org) > Issues > Water quality > Accidental Pollution > AEWS.

<sup>255</sup> JAP (2001).

<sup>256</sup> *Ibid* p. 37.

<sup>257</sup> *Ibid* p.37.

<sup>258</sup> *Ibid* p.38.

<sup>259</sup> [www.icpdr.org](http://www.icpdr.org) > Projects and Programmes > DABLAS.

operated under the leadership of the United Nations Development Programme.<sup>260</sup> Even though the DRP is not an achievement of the ICPDR and its main focus is not industrial pollution but rather nutrient reduction, the project had to be noted as it greatly supports the work of the ICPDR by strengthening the river basin management in the region.

## **IV.2. Implementation of the WFD**

One of the main means of the WFD to achieve its main objective of reaching good chemical and ecological status by 2015 is to carry out the management of waters on a river basin level. This target is not a vague objective but an individual obligation to achieve results for every Member State.<sup>261</sup> Such a strict requirement is hard if not impossible to adhere to when transboundary river pollution can undermine one's compliance. The solution to this problem has to be cooperation. Accordingly, the WFD in its preamble recognizes that the key to its success is cooperation at Community, Member State and local level.<sup>262</sup>

To this end, the WFD imposes cooperation duties on Member States. The main requirement is to assign river basins within their territory to river basin districts, or to international river basin districts where the river basin extends to the territory of more Member States.<sup>263</sup> The Danube River Basin District (DRBD) is such an international river basin district where the Member States have to cooperate with each other and with the other five riparian countries which are not EU members but decided to comply with the WFD to allow for basin-wide implementation.

### **Timeframe for implementation**

The WFD poses several tasks on the Member States, which they have to carry out in four phases. Firstly, by December 2003, the river basin districts had to be defined and the competent authorities had to be appointed.<sup>264</sup> Secondly, a report had to be prepared on the characteristics of the river basin district, the impact of human activities on the environment and the economic analysis of water use by the end of 2004.<sup>265</sup> Thirdly, monitoring networks and programmes had to be developed by December 2006.<sup>266</sup> Finally, Member States have to prepare the river basin management plans together with the Joint Programme of Measures (JPM) by December 2009.<sup>267</sup>

### **Coordination mechanism**

To enhance transboundary cooperation and enable an as effective performance of the tasks as possible, the river basin countries developed a multilevel coordination mechanism (at sub national level, national level, multilateral/bilateral level and Danube basin level).<sup>268</sup> At the

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<sup>260</sup> [www.undp-drp.org/drp/project.html](http://www.undp-drp.org/drp/project.html).

<sup>261</sup> Keessen at al. (2008) p. 41; Hey and Rijswick (2009) p.1.

<sup>262</sup> Preamble paragraph 14.

<sup>263</sup> Article 3.1; Article 3.3.

<sup>264</sup> Article 3; Article 24.

<sup>265</sup> Article 5.1.

<sup>266</sup> Article 8.

<sup>267</sup> Article 11.7; Article 13.6.

<sup>268</sup> Outline of the DRBD (2008) p. 4.

national level it is the duty of the competent authority to coordinate the sub–units that have been formed at the sub-national level, meanwhile at the Danube basin level it is the responsibility of the ICPDR to facilitate and coordinate cooperation.<sup>269</sup> At the multilateral/bilateral level, the neighbouring countries conduct agreements with each other and with non-river basin countries such as Poland, Switzerland or Albania, who offered their support.<sup>270</sup> To see how this coordination mechanism works in practice, it is useful to examine the process which will result in the final version of the Danube Basin Management Plan (DBMP) by the end of this year.

### Phase I

In the first phase, the Member States defined the Danube Basin as one international river basin district, and had to appoint the competent authorities.

In Hungary for instance, the national report prepared pursuant to Article 3.8 of the WFD first presented how Hungary is situated within the DRBD and contained a map of Hungary's waters and the main sub units of the river basin on its territory.<sup>271</sup> Further, it appointed the Ministry of Environment and Water as the competent authority and defined its responsibilities under the WFD and its legal status.

To create the link with the multilateral/bilateral level, the report listed all bilateral agreements in force between Hungary and its neighbours. For Hungary, these bilateral agreements have special importance as the country has seven neighbouring countries, all of them cooperating under the DRBD. Four of these neighbours (Austria, Slovakia, Ukraine and Romania) are upstream countries from where transboundary pollution may be caused.

The report of Hungary together with the reports prepared by the other DRBD countries were sent to the ICPDR which then prepared a basin-wide report, the so called 'roof report'. The roof report has similar structure as the national reports, but its scope covers the entire Danube Basin. The roof report first describes the Danube and its main tributaries, and then the international coordination mechanism both at the multilateral/bilateral level and at the basin-wide level, including the description of the organisation, functioning and the tasks of the ICPDR and its expert body, the River Basin Management Expert Group (RBM EG) in which every river basin country is represented.<sup>272</sup>

The ICPDR is only a coordinating body, the actual reporting to the European Commission is the duty of the Member States, which included the roof report of the ICPDR to their report as Part A, whereas their national input became Part B.<sup>273</sup>

### Phase II

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<sup>269</sup> The ICPDR is an international body which was set up to implement the Danube Protection Convention but it has also been delegated to coordinate the work of Danubian countries on river basin management under the WFD.

<sup>270</sup> Roof report (2003) p. 15.

<sup>271</sup> Report of Hungary on the implementation of Article 3.8. of the WFD (2004). Available in Hungarian at: [www.circa.europa.eu](http://www.circa.europa.eu).

<sup>272</sup> Roof report 2003 (2004). p. 15.

<sup>273</sup> *Ibid* p. 6.

As a basis for the DBMP, the river basin countries had to prepare an analysis of the basin by the end of 2004 in line with the requirements of Article 5 of the WFD. This analysis was prepared and coordinated exactly the same way as the Phase I reports, therefore it is not necessary to discuss coordination mechanism in detail. The significance of these reports is that they identify the significant water management issues of the river basin which will be the main focus of the DBMP and the JPM.<sup>274</sup>

### Phase III

To be able to assess the status of the waters in a coherent and comprehensive way, Article 8 requires Member States to establish monitoring programmes by 2006. Most of the countries just like Hungary had already operated a monitoring network, therefore the monitoring programmes for the purpose of the WFD were developed taking into account the already existing monitoring systems.<sup>275</sup>

Just like at national level, the ICPDR also uses the long-existing TNMN network for coordinating the national monitoring programmes. The TNMN had been revised to meet the requirements of the WFD.

### Phase IV

The final phase of the implementation of the WFD is not completed yet as the river basin management plans (RBMP) have to be prepared by the end of 2009.

The plans will be prepared first at sub unit level, then at national level. In accordance with Article 13.5 of the WFD, the river basin countries decided to also prepare plans for the main sub-basins, including the Tisza sub-basin. Finally, based on the content of the national and sub-basin plans, the ICPDR prepares the DBMP.<sup>276</sup>

#### *Sub unit level*

The territory of Hungary has been divided to 42 sub-units. The RBMP for the sub units will be prepared by the local Environmental and Water Directorates. The public consultation of the draft plan ended at the end of July 2009, and currently the authorities are processing the comments. Only the so called 'consultation documents' of the sub-units, where the Rába, the Tisza and the Somes enter into Hungary, report transboundary industrial pollution of the rivers. The consultation document of the Szigetköz, the sub unit of the area where the Danube reaches Hungary only mentions the pollution of the Rába as it flows into the Danube degrading its water quality.<sup>277</sup>

The consultation document of the Rába sub-unit describes the foaming of the Rába caused by inadequately treated waste water discharged by Austrian leather factories as the only significant industrial pollution in the region.<sup>278</sup> The document recognises that the two

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<sup>274</sup> Roof report 2004 (2005). Section 4.4.

<sup>275</sup> Report of Hungary on the monitoring programme (2007) Available in Hungarian at: <http://www.euvki.hu>.

<sup>276</sup> Outline of the DBMP (2008). p. 4.

<sup>277</sup> National implementation of the WFD - Consultation document on Szigetköz for the RBMP (2009) p.21.

<sup>278</sup> National implementation of the WFD - Consultation document on the Rába for the RBMP (2009) p. 63.

countries need to cooperate in order to stop the pollution, therefore it refers to the programme of the Rába ad hoc working group.<sup>279</sup>

The consultation documents of every sub-unit bordering Romania also emphasize the dependency of the region on the heavy metal pollution of the river outside Hungary's borders.<sup>280</sup> The consultation document of the Upper Tisza region explains that the quality of the Tisza is undermined by the heavy metal concentration of the water due to the mining activity in Baia Borsa, Romania and by the repetitive accidents contaminating the water with heavy metals and floating garbage. According to the document, the solution lies in strengthening Hungary's relationship with Romania and the Ukraine, and the joint implementation of preventive and monitoring measures.<sup>281</sup>

Further, the consultation document of the Berettyó sub-unit where many tributaries of the Tisza enter the country report of an oil refinery at the Romanian side of the border which contaminated the Berettyó river with oil in 1995, but it does not mention any precautionary measures to be taken.

### *Regional level*

The next level of planning is the regional level. The territory of Hungary has been divided into four regions (Duna, Dráva, Balaton and Tisza). The draft RBMPs for the regions are available and subject to public consultation. The draft plan of the Tisza region points out the problem of transboundary heavy metal pollution from Romania and the Ukraine,<sup>282</sup> while the draft plan of the Danube region states that Hungary and Austria are planning to cooperate in the ecological rehabilitation of the Rába.<sup>283</sup>

### *National level*

All the RBMPs focus on the significant water management issues identified by the analysis of the river basin in phase II. Hungary's draft plan is now available and subject to public consultation. The draft plan was prepared to fulfill the requirements of Annex VII of the WFD. For the purpose of this study, it is relevant that the document does not limit itself to national problems but it also refers to transboundary problems by pointing out that the quality of several rivers in Hungary does not meet the standards of the WFD because of pollution caused by upstream riparian states.<sup>284</sup> The document focuses on the current problems, therefore it only mentions the foaming of the Rába and the cyanide pollution of the Tisza as examples for cases where the remedial measures took a long time.<sup>285</sup>

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<sup>279</sup> The ad hoc working group was set up by the Hungary-Austria Water Management Committee to continue the implementation of the Rába Action Programme after the Rába Task Force finished its work to reach agreements between Austria and Hungary on how to resolve the problem.

<sup>280</sup> National implementation of the WFD - Consultation document on the Upper Tisza for the RBMP (2009) p. 22; National implementation of the WFD - Consultation document on Szamos-Kraszna for the RBMP (2009) p. 22.

<sup>281</sup> National implementation of the WFD - Consultation document on the Upper Tisza for the RBMP (2009) p. 22.

<sup>282</sup> Draft RBMP for the Tisza region (2009) p. 15.

<sup>283</sup> Draft RBMP for the Danube region (2009) p. 204.

<sup>284</sup> Draft Hungarian River Basin Management Plan (2009) p. 18, 66, 126, 153, 193.

<sup>285</sup> *Ibid* p. 126.

Chapter 8 of the RBMP will contain the Programmes of Measures Hungary intends to carry out in order to implement its obligations stemming from the WFD. Regarding pollution by dangerous substances, the draft plan determines measures for the implementation of EQS Directive, the New Dangerous Substance Directive and the IPPC Directive but it does not address transboundary pollution specifically.

#### *Sub-basin level*

At the time this study was conducted, the RBMP for the Tisza basin had not yet been published.

#### *Danube basin level*

Even though the DBMP is not available yet, a draft plan has been prepared based on the information the Danubian countries submitted to the ICPDR before 20 April 2009. The most cardinal part of the draft plan is the Joint Programme of Measures which summarizes the measures of basin wide importance needed to reach the targets of the WFD by 2015.

Concerning the industrial sector, the draft plan finds the implementation of the IPPC Directive the most effective way to reduce pollution, because the directive integrates different aspects of pollution control.<sup>286</sup> Regarding accident prevention, the draft plan emphasizes the importance of prevention and effective contingency planning.<sup>287</sup> The draft plan recognizes that the problem of discharging hazardous substances into the tributaries of the Danube is unlikely to be solved by 2015. The implementation of the relevant directives will improve the situation but further measures are necessary such as upgrading the waste water treatment facilities and improve the knowledge on sources and pathways of hazardous substances.<sup>288</sup>

### **IV.3. Other cooperative mechanisms**

Besides the basin-wide cooperation in managing the Danube, there is the possibility for riparian states to develop any form of cooperation with their neighbours for the further protection of their transboundary waters. The objective of this cooperation can be preventive, or in response to pollution events. Hungary as a downstream country with four upstream neighbours has always striven to develop closer relationships with its fellow riparian states. In the following, this study will examine the current forms of cooperation between Hungary and its neighbours. As a Member State, Hungary uses the possibilities provided by the EC to find financial support for its cross-border actions.

#### **European Territorial Cooperation**

A traditional form of cooperation is the participation in the EC-initiated cross-border cooperation programmes subsidised by the European Regional Development Fund. Currently, Hungary operates bilateral development programmes with Austria, Romania, Slovakia and Slovenia.<sup>289</sup> These programmes have a broad scope; they do not focus on the

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<sup>286</sup> Draft plan. p. 69. Draft Danube River Basin District Management Plan.

<sup>287</sup> *Ibid* p. 70.

<sup>288</sup> *Ibid* p. 70., 86.

<sup>289</sup> [www.nfu.hu](http://www.nfu.hu) > Fejlesztési Programok > Európai Területi Együttműködés, IPA, ENPI 2007-2013.



elimination of transboundary river pollution. However, they do consider sustainable development a priority, and therefore can embrace projects which help creating the balance between economic development and the quality of the environment, for instance projects investing in modernizing the infrastructure of polluting factories.<sup>290</sup>

#### Cross-border cooperation with non EU Members

To strengthen the relationship with accession countries, the EU provides financial support from the Instrument for Pre-Accession Assistance (IPA) for cross-border cooperation with those countries. Hungary cooperates with Croatia in such a programme.

A further possibility for cross-border cooperation provided by the EU is to enter into cooperation programmes with non EU Members who are not accession countries but benefit from the Neighbourhood and Partnership Instrument of the EU. Hungary operates such programmes both with the Ukraine and with Serbia.<sup>291</sup> All of these programmes can promote projects aiming to prevent transboundary pollution.

#### European Grouping for Territorial Cooperation (EGTC)

The EGTC is a European legal instrument based on Regulation 1082/2006/EC (EGTC Regulation) aiming to facilitate and encourage transboundary cooperation between the Member States.<sup>292</sup> The novelty of the regulation is that it enables groups of countries to cooperate without a prior international agreement by creating an entity with legal personality to carry out tasks identified by its members. The members of the EGTC can be Member States, regional or local authorities, bodies governed by public law or associations.<sup>293</sup> As the objective is to promote cross-border cooperation, the members have to belong to at least two different Member States.<sup>294</sup> The EGTC has to establish its own budget and it is governed by the convention concluded by the members which states among others the name, the registered office, the members, the tasks and the applicable law.<sup>295</sup> The creation of an EGTC is voluntary, Member States are not obliged to join such a group.

The advantage of the EGTC's is that they foster the effectiveness of policy making by creating a field for cooperation between the different levels of governance (local, regional authorities, Member States) and enable the involvement of various stakeholders. It has to be noted however that cooperation of local and regional authorities under an EGTC can extend to the joint execution of policies but it cannot be charged with enforcement powers.<sup>296</sup>

A further positive feature is that the EGTC's have their own budget and they can operate even if their actions are not funded by the EU.<sup>297</sup> Another strong tool is the legal personality of the EGTC's. Article 1 of Regulation 1082/2006/EC states that „EGTC shall have in each

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<sup>290</sup> [www.ec.europa.eu](http://www.ec.europa.eu) > Európai Bizottság > Magyarország > Sajtószoba > Sajtóközlemények > Ausztria–Magyarország határon átnyúló operatív program 2007–2013.

<sup>291</sup> [www.nfu.hu](http://www.nfu.hu) > Fejlesztési Programok > Európai Területi Együttműködés, IPA, ENPI 2007-2013.

<sup>292</sup> EGTC Regulation 1082/2006/EC.

<sup>293</sup> Article 3.1.

<sup>294</sup> Article 3.2.

<sup>295</sup> Article 8, 11.

<sup>296</sup> Keesen *et al.* (2008) p. 39.; See also EGTC Regulation Preamble paragraph 13 and Article 7.4.

<sup>297</sup> Article 7.3;Engl (2007) p. 21.

*Member State the most extensive legal capacity accorded to legal persons under that Member State's national law. It may, in particular, acquire or dispose of movable and immovable property and employ staff and may be a party to legal proceedings”.*

Even though it might take some time before this new form of cooperation will spread in Europe, it could serve as a catalyst in transboundary cooperation and as such, it could be benefited from in the field of transboundary industrial pollution as well.

#### **IV.4. Cooperation of Austria and Hungary in solving the foaming problem of the Rába river**

##### **Rába Task Force**

The Rába Task Force is a bilateral body established by Austria and Hungary in 2007 to resolve the water quality problems of the Rába especially the foam formation on the surface of the river. By establishing the task force, Austria and Hungary acknowledged that they need to work in close cooperation to overcome the water quality problems.

The task force developed the Rába Action Programme which listed the necessary measures to be implemented by the two countries in order to restore the good quality of the river. The programme necessitated the adoption of stricter rules for emissions from tanneries taking into account the foam capacity of the waste water.<sup>298</sup> Further, the programme required Austrian authorities to tighten their controls on the factories and present the results to the Hungarian authorities. Another important element of the programme is the implementation of a third treatment stage for waste water in the polluting leather factories. For realization of the additional waste water treatment stage, the voluntary cooperation of the factories was inevitable. Finally, the programme reflects the agreement of the two countries that they will launch joint projects for the rehabilitation of the river.<sup>299</sup>

##### **Hungarian-Austrian Water Management Committee**

The committee was established by the Treaty between the Republic of Hungary and Austria on the water management of the border region in 1959 and it is a central instrument of the cooperation concerning water management issues in the border region.

The committee had a major role in mediating between Austria and Hungary on the pollution of the Rába. Since both countries are represented in the committee, it creates a forum for discussion and possible reaching of agreement on joint measures to tackle the pollution. Such agreement was made for instance on the joint implementation of a water quality survey on the full length of the Rába, and for the comparative examination of the fish population before and after the installation of new filtering devices.<sup>300</sup>

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<sup>298</sup> Rába Action Programme (2007) p. 2.

<sup>299</sup> Rába Action Programme (2007) p. 4.

<sup>300</sup> [www.kvvm.hu](http://www.kvvm.hu) > Hírek > Elkészült a Rába vízminőségének első átfogó vizsgálata - Épül az új szűrőberendezés a Boxmark feldbachi bőrgyárában. 30.09.2008.  
[www.kvvm.hu/index.php?pid=1&sid=1&hid=2027](http://www.kvvm.hu/index.php?pid=1&sid=1&hid=2027).

The committee also established an ad hoc working group for the implementation of the Rába Action Programme after the Rába Task Force concluded its mandate and finished to work.

In 2008 the committee evaluated the implementation of the Rába Action Programme and welcomed the achievements of Austria and Hungary, especially the implementation of the new third stage waste water treatment devices and that two of the three polluting factories stopped using the naphthalene-1.5 –disulphonate in their production process, while the third reduced its use by 90%.

#### **IV.5. Findings**

To answer the research question, the cooperation of the countries in the Danube basin contributes to the protection of Hungary's rivers from transboundary industrial river pollution have been reviewed. After reviewing both the cooperation based on existing legal obligations and the voluntary collaboration of neighbouring countries, it can be concluded that many projects and programmes have been developed for the purpose of the protection of the rivers including protection from pollution. Probably the most promising is the implementation of the WFD, which necessitated the development of a multi-level coordination mechanism to achieve better results. The actual effectiveness of the system cannot be evaluated yet, as the river basin management plans and the Danube Basin management plan containing the programmes of measures and the Joint Programme of Measures have to still be adopted and implemented. Only after 2015 the results of this multi-level governance will show whether the cooperating countries could reach the objectives of the WFD or not. The quality of Hungary's rivers largely depends on the success of this cooperation, because the rivers can only reach good surface water status by 2015 if upstream states do not undermine Hungary's efforts.

The case of the Rába showed that bilateral cooperation is essential when the pollution affects only a small part of the river basin and European law does not provide sufficient protection against it. The success of the cooperation of Austria and Hungary was the result of a long process in which the governments of both countries as well as the local authorities worked together to adopt and implement a programme which could resolve the problem. The stricter regulations adopted by the Austrian legislator, coupled with state subsidies to build the necessary filtering devices, and the strong pressure from NGOs and the public induced the industry to cooperate which was essential to eliminate the problem.

## V. REMEDIES

The ideal situation for the protection of transboundary rivers would be one where riparian countries all comply with their international obligations and cooperate to preserve the good quality of the waters.

Unfortunately, no matter how strict the regulations are and how much the riparian countries try to cooperate, pollution events do occur and as the foaming of the Rába river and the Baia Mare spill proved, they can cause huge damage to the environment, economy and society. To get an overall picture of how international and European law contribute to the protection of the downstream countries' rivers, it has to be examined what these countries' options are to find remedy in case an industrial facility outside its borders pollute its rivers.

To answer this question, firstly, it has to be determined to what extent a downstream state is a victim, and what the damage is that it can seek remedy for. Secondly, the polluter from whom remedy can be claimed has to be identified. Thirdly, the possible forms of remedy need to be investigated. Lastly, the options of the riparian states to settle their disputes need to be reviewed.

### V.1. Damage to be remedied

River pollution can have various consequences but not all of them concern only the state itself. Private persons can suffer from the pollution as well, for example by losing income from fishing or tourism, by the depreciation of their properties, and by damage to their health. However, how private injuries can be compensated falls outside the scope of this paper and will not be discussed.

What exactly is the damage the injured state can claim remedy for? On the one hand, transboundary industrial pollution by degrading the quality of the water and harming its wildlife can cause serious damage to the environment of downstream states. On the other hand, it can cause various types of economic damage as well. The costs of preventive and response measures, such as the clean up costs, the costs of restoring the environment or the expenses of any forms of indemnification of the citizens fall into this category. Further, the pollution can destroy fish and other aquatic animals with economic value. Their loss can result in declining income from selling fishing permits. If the economy of the region declines due to the pollution, as it did in eastern Hungary after the cyanide spill, the income from tax revenues will decrease.

### V.2. Who is to be held accountable for the damage?

The next question is who the injured country can claim remedy from. In other words, who can be held liable for the damage. Is the company whose installation caused the damage to be held liable, or can the injured state claim remedy from the state from whose territory pollution was discharged to the water? Is it possible to turn against both?

Industrial pollution is typically caused by private companies operating an industrial installation which discharges pollutants into the water. It is up to international and national private law to regulate the conditions and the extent of the operator's liability.

On the other hand, the state on whose territory the industrial installation is operated might also be responsible for the damage, based on public international law for violating an international obligation.

Further, the identification of the polluter can be difficult for many reasons, especially if the pollution is the result of the activity of multiple installations, if the source of the pollution lies far from the place where damage occurs, or if the consequences of the pollution are felt only long after it happened.<sup>301</sup>

Following identification of the polluter, the downstream country faces a complicated cascade of regulations dealing with responsibility and liability issues. Public international laws regulating interstate relations need to be reviewed to establish whether the state of the origin of the pollution can be held responsible for breaching any of its obligations under international law. Furthermore, in case it wishes for the operator of the installation to provide compensation for the damage, the national laws of that operator's state must be reviewed to establish the applicable tort law rules. In disputes between countries which are Members of the European Union, European law (more specifically the Liability Directive<sup>302</sup> which will be discussed below) further complicates the problem.

To simplify, this paper will first discuss remedy claimed from another state, and operator liability second.

### **V.2.1. State responsibility**

#### **International law**

The International Law Commission attempted to codify and further develop international rules related to state responsibility and internationally wrongful acts, in its draft articles on state responsibility. The draft articles were commended to the attention of the Governments by the UN General Assembly in 2001,<sup>303</sup> and as the articles are generally considered to largely reflect customary international law, they are binding on the international community of states. It is useful to take a look at how the draft articles regulate state responsibility, especially because the conventions relevant for transboundary river pollution discussed in this study do not contain any rules on responsibility. Only the UNECE Water Convention and the UNECE Industrial Accidents Convention contain a rather empty clause saying that "*[t]he Parties shall support appropriate international efforts to elaborate rules, criteria and procedures in the field of responsibility and liability*".<sup>304</sup>

According to Article 1 of the draft articles, "*every internationally wrongful act of a State entails the international responsibility of the State*". An internationally wrongful act or

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<sup>301</sup> Kiss and Shelton (2004) p. 321.

<sup>302</sup> Liability Directive 2004/35/EC.

<sup>303</sup> UN General Assembly Resolution 56/83.

<sup>304</sup> UNECE Water Convention Article 7, UNECE Industrial Accidents Convention Article 13.

omission can arise from the violation of a treaty obligation, or customary international law both concerning substantive and procedural rules, and can also stem from the non-compliance with a binding judicial decision.<sup>305</sup>

In Section III.1 of this paper, the relevant rules of international law which might be breached by a state in relation to pollution caused by an industrial installation in its territory were reviewed. The most typical of those are the breaching of the no harm rule and infringing procedural obligations.

Following Principle 21 of the Stockholm Declaration and Principle 2 of the Rio Declaration, states have to “*ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction*”.<sup>306</sup> For river pollution cases this obligation means that states have to prevent industries from harming the environment of another state by discharging pollutants into international waters.

The nature of the obligation is due diligence, meaning that the state has to take all the measures which can generally be expected in the given situation.<sup>307</sup>

The procedural obligations can be various such as the duty to cooperate, the duty to assess risks, the duty to notify and inform of risks, the duty to consult and the duty to notify and assist in case of emergencies. Some of these obligations also require due diligence, while others, such as the duty to notify, are obligations of result.

To preclude its wrongfulness, the state where the pollution originates can refer to many circumstances such as distress, force majeure, necessity, and countermeasures undertaken.<sup>308</sup> In case of industrial pollution, force majeure is perhaps the most relevant excuse, since major pollution from industrial sources often takes place as result of, for example, severe weather conditions. In case of a formal dispute between Hungary and Romania on the Baia Mare accident, Romania would probably refer to force majeure to preclude its wrongfulness, as at the time of the spill there were severe weather conditions in the region. On the other hand, Hungary could refer to paragraph 2 a) of Article 23 of the draft articles which stipulates that a state cannot preclude its wrongfulness if its conduct caused or contributed to the force majeure situation.

### **European law**

Unlike the draft articles on the responsibility of states for internationally wrongful acts, European law does not contain rules on how to establish the responsibility of its Member States for violating Community law. Even though Article 10 of the EC Treaty, the so-called ‘loyalty clause’ calls on Member States to fulfill their obligations stemming from their membership and not to jeopardise the objectives of the Community, the EC Treaty does not contain any further rules on what the responsibility of a Member State entails if it breaches its obligations.<sup>309</sup> It is up to the European Court of Justice (ECJ) to develop its case law on

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<sup>305</sup> Dixon (2007) p. 244.

<sup>306</sup> Stockholm Declaration Principle 21.

<sup>307</sup> Handle (2005) p. 538.

<sup>308</sup> ILC draft articles for on the responsibility of states for internationally wrongful acts (2001) Article 22-25.

<sup>309</sup> For example whether the breach has to be attributed to the State, what kind of acts can be attributable to the state, how can the state preclude its wrongfulness etc.

the issue, as it did in its Frankovich judgement for disputes between a private person and a state. In its decision the ECJ ruled that a state can be held responsible for the damage caused to private parties stemming from a violation of Community law which was attributable to that state.<sup>310</sup> It can be argued that this decision should also be applied in state versus state disputes.<sup>311</sup> It is questionable however, whether this analogy can be drawn, considering that the Frankovich case was between a state and a private person, it concerned labour law and had no actual transboundary aspect.

It has to be mentioned that the EC Treaty does contain rules on the procedures which can be used to hold a state responsible and on the applicable remedies but these issues are the subject of Section V.4.1 of this paper and thus will be discussed later.

### **V.2.2. Liability of the operator**

Private parties such as operators of industrial installations are not subject to public international law. Their liability is regulated by international civil liability regimes and the tort law rules of national legal systems.

Victim states often decide to direct their claims at the operator for many reasons. Firstly, the lack of comprehensive laws on state responsibility has the consequence that public international law cannot always provide appropriate remedies for states that fall victim to transboundary river pollution.

Secondly, states tend to be reluctant to engage in litigation with their neighbours, and civil law serves as a less sensitive alternative for them.

A third argument to claim damages from the operator is that this way the real polluter is targeted, which serves much more the purposes of the 'polluter pays' principle than claiming the damage from a state where the costs would be paid out of public funds.<sup>312</sup> It has to be noted that private law applies to the liability of the polluting company even if it is fully or - as in the Tisza case - partly state-owned.<sup>313</sup> When operating through a corporation, the state acts in a private capacity.

A further advantage of a civil claim can be that while under public international law there are no mechanisms to enforce the decisions of dispute settlement bodies and whether a victim state will be compensated for the damage or not will largely depend on the good will of the polluting state, civil judgements are usually easier to enforce.<sup>314</sup>

A last argument in favour of civil liability is that it complements public international law in the sense that it can offer remedies where public international law cannot be applied.<sup>315</sup>

Public and private international law complement each other. Civil liability regimes do not replace the rules on state responsibility. Even if the damage is compensated by the polluting

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<sup>310</sup> ECJ joint cases Frankovich and Bonifaci C-6/90 and C-9/90 [1991]; Keessen *et al.* (2008) p.54.

<sup>311</sup> *Ibid.*

<sup>312</sup> Birnie and Boyle (2009) p. 322-326.

<sup>313</sup> Hungarian Civil Code Article 28 paragraph 1.

<sup>314</sup> See section V.4.

<sup>315</sup> For example because the responsibility of the state from the territory of which the pollution originates cannot be established.

private actor under a civil law, the state of origin is still obliged to guarantee that such pollution will not take place again, and to take measures to ensure that.<sup>316</sup>

In the following, this study will examine whether there is any civil liability regime under international and European law that Hungary could benefit from, and what the options of Hungary as a downstream country are to use the means provided by civil law to find a remedy in case of transboundary river pollution.

## **International law**

### Convention on civil liability for damage Resulting from Activities Dangerous for the Environment (Lugano Convention)

The convention was adopted by the Council of Europe in 1993 but is still not in force and probably never will be, as so far only nine countries – none of which are Danubian states – have signed it, and none of them has deposited an instrument of ratification.<sup>317</sup>

Even though the convention has limited significance, it is interesting to reflect on, as it intended to create a European concept of civil liability which explicitly includes transboundary damages, and its geographical scope covers incidents occurring in the territory of a party regardless of where the damage is suffered.<sup>318</sup> Following the ‘polluter pays’ principle, the convention establishes a strict liability regime where the operator who controls the dangerous activity is liable for the damage regardless of whether or not there is any fault on its part. The definition of dangerous activity is rather broad. It basically covers every activity which deals with dangerous substances posing significant risk to the environment.<sup>319</sup> Both the mining activity in Romania and the leather producing in Austria fall under this broad definition.

The liability under the convention is not limited financially. To avoid situations where the insolvency of the operator is an obstacle to the remedy, operators have to participate in a compulsory financial security scheme or maintain other financial guarantees. The convention relies on the help of national legal systems to implement this requirement.<sup>320</sup>

The convention aims to fully compensate the victims for the damage and therefore contains a rather broad definition of damage which covers the “loss and damage by impairment of the environment.”<sup>321</sup> The compensation is limited however to costs of reasonable measures aiming to restore the damaged components of the environment. The limitation does not apply to lost income, which therefore can be fully claimed as damage.<sup>322</sup>

If the convention were in force, it would cover most of the damage of a downstream state caused by transboundary industrial river pollution including all the costs of reasonable response measures but also the lost tax income of the state. On the other hand it is not clear

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<sup>316</sup> Scovazzi (2001) p. 59.

<sup>317</sup> [www.conventions.coe.int](http://www.conventions.coe.int) > Treaties > Complete List > No. 150.

<sup>318</sup> Article 3.a).

<sup>319</sup> Article 2.

<sup>320</sup> Article 12.

<sup>321</sup> Article 2. paragraph 7.

<sup>322</sup> Article 2. paragraph 8; Birnie and Boyle (2009) p. 318.



how for instance Hungary in the Baia Mare case could claim the indemnification of its citizens whose living depended on farmed animals perished due to the cyanide spill.

#### ILC Draft Principles on the allocation of loss for transboundary damage

The draft principles were adopted by the ILC in 2006 as a non-binding instrument to lay down the principles on liability for transboundary environmental damage.

The draft principles are similar to the Lugano Convention in the sense that they also promote the strict liability of the operator. A difference is that even though the draft principles focus on the liability of the operator as the primarily liable entity, liability can also be imposed on another entity or person where appropriate.<sup>323</sup>

The definition of environmental damage is very broad in the draft principles, broader even than in the Lugano Convention, as it does not contain any limit on the compensation of the impairment of the environment. The rather general formulation of the definition has the consequence that the definition can be applied to basically all the forms of economic damage caused to a state by transboundary industrial pollution.

To make sure that the national systems enable the application of the draft principles, Article 8 paragraph 1 asks the parties to adopt the necessary legislative and administrative measures for the implementation of the draft principles.<sup>324</sup> The significance of the principles is limited as a result of the inactivity of the states in complying with this rule.

#### Kiev protocol on civil liability for industrial accidents

The Kiev protocol to the Industrial Accidents Convention was adopted after the Baia Mare spill to create a civil liability regime targeting large scale industrial activities. The protocol is signed by 22 countries but is not in force yet. So far only Hungary has ratified it. The reason why the protocol was not ratified by more of its signatories is that EU Member States were discouraged to ratify it, in connection with the adoption of the environmental liability directive, which will be discussed in the next Section of this paper.<sup>325</sup>

The protocol makes it explicit that the application of its civil liability regime does not exclude the international responsibility of states,<sup>326</sup> therefore states cannot use the protocol to avoid having to provide compensation.<sup>327</sup>

Just like the other civil liability regimes discussed so far, the regime of the Kiev protocol is based on the strict liability of the operator. The protocol sets financial limits to liability depending on how much risk a certain activity poses on the environment. This limited liability is supposed to make it easier for the operators to find an insurer who will actually be willing to accept the risk.<sup>328</sup>

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<sup>323</sup> Principle 4 paragraph 2.

<sup>324</sup> Article 8 paragraph 1.

<sup>325</sup> Antypa and Stec (2003) p. 193.

<sup>326</sup> Article 12.

<sup>327</sup> Antypas and Stec (2003) p. 189.

<sup>328</sup> Scovazzi (2001) p. 60.

The definition of damage of the protocol is less wide than the one of the Lugano Convention or the draft principles on the allocation of loss for transboundary damage as it does not cover environmental damage and not every form of economic loss is considered damage. The costs of reinstatement of the transboundary water and the costs of response measures fall under the definition of damage but further economic loss can only be considered damage if it stems from the *“impairment of a legally protected interest in any use of the transboundary waters for economic purposes”*. The lost income of a state caused by the decreased demand for fishing rights for instance is a legally protected economic interest of the state. It is questionable however whether a state could rely on this definition when claiming damage due to lost tax revenues.

The protocol just like the Lugano Convention and the draft principles on the allocation of loss for transboundary damage rely on the parties to implement its provisions.<sup>329</sup>

### **European law**

Does European law enable a state to claim compensation for its damage from a private company? For Hungary, this is an important question as its biggest upstream neighbours are EU members by now, and therefore the Hungarian state can rely on European law when claiming compensation for international transboundary environmental harm caused in its territory.

#### Liability Directive<sup>330</sup>

As in international law, European legislators did not develop a civil liability regime applicable to transboundary river pollution. They did adopt the Liability Directive in 2004 to *“establish a framework of environmental liability based on the ‘polluter-pays’ principle, to prevent and remedy environmental damage”*.<sup>331</sup>

The directive is not a civil liability instrument as it does not deal with the economic and social damage and it does not provide remedy for private people for their health or financial damage. It is more public in character as it exclusively focuses on environmental damage and aims to make sure that the environment is restored after a harmful event.<sup>332</sup>

The scope of the directive covers environmental damage and damage to natural habitats and protected species caused by activities listed in Annex III and also the imminent threat of such damage.<sup>333</sup> Annex III of the directive lists the activities which are potentially dangerous to the environment by referring to the EC legal instruments regulating them. The list contains a wide list of such laws, including the IPPC and the dangerous substances directives. Activities like mining and leather production which caused pollution in Hungary in the past are both covered, as are other industrial activities which could harm the environment.

Even though the scope of the directive covers all dangerous activities which can cause damage to the environment, it is not all-embracing as it does not address the problem of

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<sup>329</sup> Article 8 paragraph 1.

<sup>330</sup> Liability Directive 2004/35/EC.

<sup>331</sup> Article 1.

<sup>332</sup> Betlem and Brans (2006) p. 34.

<sup>333</sup> Article 3.1.

multiple-source pollution.<sup>334</sup> It does exclude diffuse pollution from its scope when it is not possible to create a causal link between the damage and the polluting activity of individual operators.<sup>335</sup> The preamble of the directive argues that liability is not a suitable instrument to deal with this issue.<sup>336</sup> On the other hand, the problem of individually identifiable but multiple polluters is not addressed. The directive only states that it is without prejudice to national regulations concerning the matter.<sup>337</sup> It is not clear why the directive did not want the harmonization of national laws on this matter. The Lugano Convention for instance intends to impose joint and several liability on the polluters, which would enable the victim to claim full compensation from any of the polluters, who can then require the other polluters to pay their part.<sup>338</sup> With such a liability, the victim state having to claim damage from each of the polluters separately can be avoided.

The directive lays the responsibility with the operator of the installation, thus a private party. In case of a pollution event, the operator is required to implement remedial measures.<sup>339</sup> If it fails to take the necessary measures, the competent authority can implement the measures itself as a last resort.<sup>340</sup> In any case, the operator has to bear the costs. It can only be excused if the pollution was caused by a third party, or if the orders of a public authority were followed.<sup>341</sup>

In transboundary pollution cases, the foreign polluter is usually not in the position to take remedial measures, as the environmental harm occurs in a different country. In that case the authorities of the victim country are compelled to restore their own environment. The costs of those measures can be then claimed from the foreign based operator.<sup>342</sup> In practice it means that if for example a part of the fish population dies, like it did in the Tisza case, it will be the authorities of the downstream country who will clean the river and if necessary take measures to repopulate the river. The costs of these actions then can be claimed from the operator. It has to be noted however that as the next Section of this paper will discuss, the procedural background of such claim is debated.

The directive aims to avoid situations when the operator cannot cover the costs of the remedial measures because it is insolvent. It calls on the Member States to develop financial security instruments which would guarantee that the operator can cover its responsibilities.<sup>343</sup>

### **V.2.3. Findings**

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<sup>334</sup> Multiple-source pollution is a real threat to the environment because it happens quite often that similar installations geographically close to each other discharge the same pollutant, as it happened in the Rába case. The pollutants then accumulate in the water, causing damage to the environment.

<sup>335</sup> Article 4.5.

<sup>336</sup> Recital 13.

<sup>337</sup> Article 9.

<sup>338</sup> Betlem and Brans (2006) p. 97.

<sup>339</sup> Article 6.

<sup>340</sup> Article 6.3.

<sup>341</sup> Article 8.3.

<sup>342</sup> Article 15.3.

<sup>343</sup> Article 14.1.

It seems that at present there is no global or even European legally binding regime in force providing framework for civil liability for transboundary river pollution caused by industrial activities. Consequently, if a state wants to claim compensation for damage from a foreign-based operator, it has to rely on bilateral agreements or on the national law of the court in front of which it submits its claim.

It also has to be noted that the discussed civil liability instruments aim to provide legal means to claim compensation for economic damage, meaning damage which can be monetized. The instruments do not deal with the compensation of damage such as the loss of biodiversity or the ruined landscape.

Further, all three instruments discussed aim to harmonize the national civil liability systems by laying down the basic rules and principles of civil liability and requiring the Parties to implement them into national law.

In European law the rules of responsibility and liability are not very well developed but guidelines exist for the international community to follow. The Liability Directive is promising as it imposes the obligation to compensate for damage on the polluter but it does not deal with transboundary pollution in sufficient detail and some of its provisions are somewhat ambiguous.

### **V.3. Forms of remedy**

The next questions to be answered are what kind of remedy the victim state can find, and how a polluter can repair the damage caused.

#### **V.3.1. Remedy from states**

##### **International law**

Once it is established that a state is responsible and liable, the state must accept the legal consequences. According to the draft articles on state responsibility, the responsible state has to make full reparation for the injury caused. An injury can be any form of damage, both material and immaterial. The remedies available under the draft articles are not specific to environmental damage but generally applicable in public international law.<sup>344</sup>

The draft articles distinguish between three forms of reparation: restitution, compensation and satisfaction.<sup>345</sup>

*Restitution* means to restore the situation which existed prior to the wrongful act being committed. To restore the *ex ante* situation is not always possible in case of environmental harm, because the damage to the environment is often irreversible.<sup>346</sup>

*Compensation* involves the obligation of the polluting state to pay for the - financially assessable - damage in line with the 'polluter pays' principle.<sup>347</sup> In most disputes

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<sup>344</sup> Birnie and Boyle (2009) p. 235.

<sup>345</sup> Article 34.

<sup>346</sup> Fitzmaurice (2007) p. 1019.

<sup>347</sup> Article 36.

compensation is the central remedy, as full restitution is not always possible.<sup>348</sup> Compensation is relatively convenient for both the polluting and the victim state, because assessable damage is relatively easy to prove and paying an exact amount of money for the victim state is much easier, than taking costly and time-consuming measures to restore the environment.

In case the injury cannot be made good by restitution or compensation, the polluting state has to provide *satisfaction* to the victim state, for example by acknowledging the breach or expressing its regret publicly.<sup>349</sup> Satisfaction is used in cases when there is no quantifiable harm to the environment, such as loss of biodiversity or perished wildlife.

The Baia Mare spill is a good example of a situation where financial compensation or physical restoration is not possible. Even though it is possible to do approximate calculations for the economic loss suffered due to the death of the fish population by estimating the lost profit of the fishermen, a value cannot really be put on the damage caused to the ecosystem of the Tisza and on the loss of biodiversity due to the extinction of certain fish species. That damage cannot be compensated, and only satisfaction from the Romanian state can provide some measure of remedy.

In order to make sure that pollution does not cause further damage and it does not occur again in the future, international tribunals can decide on preventive remedies either in their final decision or in their interim orders. Preventive remedies can be for instance orders to cease the activity or conduct an environmental impact assessment.<sup>350</sup>

Hungary, as a victim state, could ask for the polluting activity to be stopped, if continuous pollution harms its rivers as the leather production did with the Rába river. In case of a one-off industrial accident such as the one that took place in Baia Mare, Hungary could claim that the due diligence obligation of the polluting state not to cause harm to the environment of another state requires the operation of the installation to cease in its existing form. In practice it means that the country of residence of the polluter should set stricter conditions for the operation of the installation.

### **European law**

Under European law, various problem-solving mechanisms are provided by primary and secondary law. With regard to primary law, these consist of the non-compliance procedure set out in Articles 226-228 EC, and the possibility to turn to the ECJ to settle a dispute between Member States under Article 239 EC Treaty.

The workings of these mechanisms will be reviewed below, in the Section on procedural aspects. Here, it is noted that the non-compliance procedure of Article 226 EC is a tool for the European Commission, not to provide redress to a Member State, but to enforce compliance with Community law.<sup>351</sup> Nevertheless, an initiating Member State can greatly benefit from such a procedure if the polluting state ceases the polluting action as a result of

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<sup>348</sup> Birnie and Boyle (2009) p. 229.

<sup>349</sup> Article 37.

<sup>350</sup> Birnie and Boyle (2009) p. 227.

<sup>351</sup> Craig and De Burca (2004) p. 428.

the procedure. Member States can request the ECJ to rule that Community law has been breached and to obtain remedy through the procedures before the ECJ under Article 227 EC (which can be initiated by a Member State against another Member State unilaterally) and under Article 239 EC (which can be initiated only if both Member States involved agree on it).

### **V.3.2. Remedy from private persons**

#### **International private law**

If the victim state seeks remedy from a private person, it can claim compensation for the damage under the national law applicable for the dispute. The form of compensation can differ in the various legal systems. According to the Hungarian Civil Code for instance the polluter is liable for restoring the original state of the environment, or, if that is not possible or *“if the aggrieved party refuses restoration for a substantiated reason”*, the polluter has to indemnify the injured party for damages.<sup>352</sup> The amount of indemnification to be paid will depend on the extent the damage can be proved by the aggrieved state.

Preventive remedies can be ordered by civil tribunals as well. A good example is the order of the Hungarian County court in the Tisza case, requiring the operator of the gold mine in Baia Mare to conduct various safety measures specified in the order.<sup>353</sup>

#### **European law - the Liability Directive**

The directive enables victim countries to find remedy for the environmental damage. Its Annex II specifies the different types of remediation. Primary remediation aims to restore the environment to its baseline condition. In case primary remediation cannot fully restore the natural resources, complementary remediation needs to be taken as a compensation for the irreversible damage. The directive also requires remediation for interim losses, which are losses resulting from the fact that the damaged natural resources cannot perform their functions and provide their services until the primary or complementary measures have taken effect.<sup>354</sup>

If accident as the Tisza pollution happen in the future, the polluter could be required to pay compensation for all the efforts Hungary needs to take in order to restore the environment as much as possible. In addition, it would have to pay the interim losses. It is not clear, however, how those losses can be assessed, as it may be hard to monetize the losses from a not perfectly functioning natural resource. On the other hand, some losses may be monetized - such as the lost profit from tourism, lost tax income.

It is not clear though whether damage indirectly related to the pollution such as the social degradation of a region - as happened with the eastern part of Hungary after the cyanide spill - can be claimed from the operator as interim loss.

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<sup>352</sup> Article 355 paragraph 1.

<sup>353</sup> This case will be further discussed in section V.4.2.

<sup>354</sup> Annex II. 1. d)

#### **V.4. Procedural aspects of liability**

After discussing from whom and on what legal basis a victim state can claim remedy, the procedural aspects of enforcing such claim under international and European law must be reviewed. The first question is what the different mechanisms which can be used by the victim state to find remedy are, and which the potential fora where remedy can be found are. In case the claim is to be brought before an international tribunal which can deliver a ruling binding on the parties, a further question is which tribunal has jurisdiction to settle the dispute. A last but rather important question is how the decision can be enforced.

As before, this section will first deal with disputes between a victim state and another state, and then with disputes between a victim state and an operator. This section uses the term 'liability' referring to both the responsibility of states for their wrongful acts and the civil liability of operators.

##### **V.4.1. Procedural aspects of claims against another state**

This Section will present the dispute settlement options first under international law, then under European law. It has to be emphasized already that disputing states do not always have a free choice to decide whether they turn to international or European dispute settlement mechanisms. The EC Treaty curtails the options of Member States of the European Union to turn to any international tribunal other than the ECJ if the interpretation or application of Community law is at stake. This means that the dispute settlement mechanisms of international law discussed by this study have very limited relevance to disputes between Hungary and its neighbours.

##### **International law**

Article 2.3 of the UN Charter lays down the principle that international disputes shall be settled by peaceful means. The meaning of peaceful means is explained in Article 33, which names „*negotiation, enquiry, mediation, conciliation, arbitration, judicial settlement, resort to regional agencies or arrangements*” as examples for peaceful dispute settlement methods but it does not specify any mandatory procedure. It is up to the parties to decide which method to apply, as long as it is peaceful.<sup>355</sup>

International agreements very often contain specific provisions which determine the applicable dispute settlement methods in case of a conflict. These methods can be either compulsory or optional for the parties to apply. To answer the research question, the dispute settlement provisions of the different international legal instruments regulating transboundary river pollution have to be examined.

##### ICJ

A potential forum for the countries to bring their dispute is the ICJ. The court is the judicial organ of the UN and it has universal, general jurisdiction, meaning that it can decide any international law dispute referred to it by the disputing parties. The jurisdiction of the court

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<sup>355</sup> Birnie and Boyle (2009) p. 250.

can be either compulsory or optional, it can be based on a special agreement of the parties of the dispute or can serve as a so called *forum prorogatum*.<sup>356</sup>

Its jurisdiction is compulsory if the UN Charter, a treaty or convention in force stipulates it as a compulsory form of dispute settlement.<sup>357</sup> Whether any of the conventions relevant for transboundary industrial water pollution contain such provision will be discussed in the next section.

The court also has jurisdiction to rule on disputes where all the parties accepted its jurisdiction as compulsory. The parties can make such a declaration at any time.<sup>358</sup> The court's jurisdiction in this case is optional as the parties are free to choose whether they submit themselves to it or not. In case of a transboundary pollution event, a downstream country can only revert to this type of dispute settlement if the polluting country has also accepted the ICJ's jurisdiction as compulsory. For Hungary, this option offers rather limited solace, as two of its upstream neighbours (Ukraine and Romania) have not submitted the required declaration.<sup>359</sup>

Another possibility is for the parties to a dispute to enter into a special agreement to refer a specific case to the ICJ, in which they lay down the terms of the dispute and a framework for the court within which it has to operate.<sup>360</sup> In environmental cases, countries have so far not used this possibility to bring their dispute to the ICJ.

Finally, the court can act on the basis of *forum prorogatum*. If a party of the dispute initiates a procedure, the court can call on the other parties to enter the procedure, and their election to do so is interpreted as their acceptance of the courts jurisdiction.<sup>361</sup> So far, no examples exist for the application of the doctrine of *forum prorogatum* in transboundary pollution cases.

The advantage of bringing a case to the ICJ is that it has jurisdiction to decide on disputes concerning the infringement of any legal obligation based on any legal instrument. This allows a plaintiff to refer to the breach of various treaties in the same procedure. Unfortunately however, as set out above, except for the cases of compulsory jurisdiction based on treaty provisions, the court only has competence to decide on a dispute if all the parties involved consent to the procedure.

With regard to the Tisza claim, Hungary did not initiate proceedings before the ICJ. It could not do so unilaterally, as Romania has not accepted the court's jurisdiction. Furthermore, it is fairly unlikely that Romania would have agreed to bring the case to the ICJ. Also, Hungary may have considered its good relationship with Romania more important than entering into a lengthy and complicated legal battle which it could not be sure to win (and at the time of the pollution both Romania and Hungary were candidate countries to the European Union and probably did not want to give the impression of being bad neighbours).

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<sup>356</sup> Currie *et al.* (2007) p. 269-270.

<sup>357</sup> Statute of the Court of Justice Article 36. 1. Available at: [www.icj-cij.org](http://www.icj-cij.org).

<sup>358</sup> Statute of the Court of Justice Article 36. 2. Available at: [www.icj-cij.org](http://www.icj-cij.org).

<sup>359</sup> <http://www.icj-cij.org> > jurisdiction > contentious jurisdiction > Declarations Recognizing the Jurisdiction of the Court as Compulsory.

<sup>360</sup> Currie *et al.* (2007) p. 269-270.

<sup>361</sup> *Ibid.*



With regard to the Rába pollution, which occurred when Hungary had not yet joined the European Union, it could have brought the case to the ICJ as both Hungary and Austria declared that they accept its jurisdiction as compulsory in their disputes.<sup>362</sup> This would have been surprising however, because Austria was a good neighbour (and member of the European Union which Hungary desperately wanted to join), but also because the dispute was not in an advanced stage and, despite the significant economic and environmental damage, not large enough to enter into a formal dispute with Austria. Instead, Hungary opted for discussions and negotiations.

It is interesting to note that there is precedent for Hungary standing up before the ICJ against one of its neighbours to protect its essential interests concerning a transboundary river. In the Gabcsíkovo-Nagymaros case, Hungary and Slovakia turned to the court to settle their dispute over the construction of a dam on the Danube. Hungary refused to build its share of dam, to which Slovakia responded by extracting much more water from the river than was equitable.<sup>363</sup> The case was similar to industrial pollution cases, in the sense that the lack of water resulted in environmental catastrophe on the Hungarian side of the border.<sup>364</sup> The outcome, however, was probably less than satisfactory for both parties, as the court found that both had violated obligations under international law, and it called on the parties to conduct meaningful negotiations to come to a solution.<sup>365</sup>

The Gabcsíkovo-Nagymaros case shows that the ICJ is not well equipped to solve complicated environmental conflicts<sup>366</sup> and negotiations are still the more practicable way to settle disputes and balance the fundamental interests of the parties. The unpopularity of the ICJ in transboundary pollution disputes is also reflected by fact that there is only very little other relevant case law. After the Gabcsíkovo-Nagymaros case, big transboundary pollution cases including the Chernobyl accident and the Sandoz accident did not end in a court case before the ICJ.<sup>367</sup>

In the last few years however, two relevant application were filed to the court. The first case was initiated by Argentina against Uruguay in 2006. Argentina claims that Uruguay authorized the construction of two pulp mills without notifying and consulting Argentina, and environmental damage resulted from the operations, namely pollution of the breeding area of migratory fish stock of the river Uruguay.<sup>368</sup> The second case commenced in 2008 when Ecuador instituted proceedings in front of the ICJ against Colombia for spraying toxic herbicides over Ecuadorian territory.<sup>369</sup> These new cases may be an indication that states have become less reluctant to bring their dispute to the ICJ, but that remains to be seen.

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<sup>362</sup> After Hungary's EU accession Article 282. of the EC Treaty limited the possibilities to bring a dispute between two member states to the ICJ.

<sup>363</sup> Gabčíkovo-Nagymaros case (1997).

<sup>364</sup> The Gabčíkovo-Nagymaros case however mostly concerned water quantity, not water quality issues.

<sup>365</sup> *Ibid* paragraph 141.

<sup>366</sup> Birnie and Boyle (2009) p. 212-213.

<sup>367</sup> Birnie and Boyle (2009) p. 212.

<sup>368</sup> Pulp Mill case (2006).

<sup>369</sup> Ecuador v. Colombia (2008).

## Arbitration

Arbitration is a common way of settling interstate disputes.<sup>370</sup> It was defined by the International Law Commission as “a procedure for the settlement of disputes between states by a binding award on the basis of law and as a result of an undertaking voluntarily accepted”.<sup>371</sup>

Arbitration - just like the judicial settlement of the ICJ – applies the rules of public international law and the parties are legally bound by the awards. Like the procedure of the ICJ, arbitration is a voluntary process, and necessitates the consent of the state.<sup>372</sup> The consent can result from an arbitration clause of a treaty, a formal agreement (compromise) between the parties to bring the dispute to arbitration or from a treaty of arbitration. The major difference between a judicial settlement and arbitration is that in the latter procedure the parties can select the arbitrator or arbitrators.<sup>373</sup>

There are various forms of arbitration. Parties can refer their case to the Permanent Court of Arbitration (PCA) in the Hague, which was established by the 1899 Hague Convention for the Pacific Settlement of International Disputes.<sup>374</sup> The PCA is in fact not a permanently operating court but more of a permanent facility available for states for arbitration.<sup>375</sup>

The disputing parties can also set up arbitral tribunals on an *ad hoc* basis after a dispute occurs. An example is the dispute between France and the Netherlands concerning the auditing of accounts in relation to the implementation of the 1991 Additional Protocol to the 1976 Convention on the Protection of the Rhine against Pollution by Chlorides. The protocol obliged France to carry out certain measures to reduce chloride discharges into the Rhine, with the costs to be shared by five riparian states. France and the Netherlands did not agree on the interpretation of the rules of the protocol concerning the final auditing, therefore brought their dispute to an arbitral tribunal set up in accordance with the provisions of the protocol.<sup>376</sup>

When submitting a dispute to arbitration, the disputing parties can agree on the procedural rules of the tribunal unless a treaty stipulates compulsory procedures. For example, if the parties could not agree on any other form of dispute settlement, the Danube Protection Convention imposes the obligation on the parties to submit the dispute to arbitration in compliance with the organizational and procedural rules of arbitration in Annex V (although it has to be noted, that arbitration is a compulsory form of dispute settlement only if the parties cannot resolve their dispute by other means, including submitting the case to another form of arbitration in which case they can set up different rules of procedure).

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<sup>370</sup> Dixon (2007) p. 280-281.

<sup>371</sup> Dixon (2007) p. 280; Kaczorowska (2005) p. 374.

<sup>372</sup> Dixon (2007) p. 281.

<sup>373</sup> Kaczorowska (2005) p. 370.

<sup>374</sup> Aust (2005) p. 444.

<sup>375</sup> *Ibid.*

<sup>376</sup> Rhine Chlorides Arbitration (2004).

Other conventions, such as the UN Watercourses Convention<sup>377</sup>, the UNECE Water Convention<sup>378</sup>, the Industrial Accidents Convention<sup>379</sup>, the Espoo Convention<sup>380</sup> and the Aarhus Convention<sup>381</sup> also contain special rules of arbitration for disputes concerning their application, but contrary to the Danube Convention, the parties are not obliged to use them. They have the opportunity though to declare these procedural rules compulsory when submitting the dispute in relation to other parties making the same declaration.

There are many reasons for disputing riparian states to prefer arbitration over judicial settlement. They can choose the organization and the procedure of the court, they can appoint (expert) arbitrators,<sup>382</sup> choose the language, *etcetera*. The downside is that the procedure can be rather costly, and the setting up of the tribunal can take quite some time.<sup>383</sup> Nevertheless, all things considered, arbitration can be a very efficient and effective way to settle transboundary water pollution disputes.

### UN Watercourses Convention

The *UN Watercourses Convention* (not in force yet) contains detailed provisions on dispute settlement, which apply to if no specific agreement is in force between the disputing parties.<sup>384</sup> The convention requires the parties first to try to solve the conflict by means of negotiation. In case their efforts fail, the convention provides many options. The parties can opt for mediation, conciliation by a third party, they can turn to any joint watercourse institution, or they can submit the dispute to arbitration or to the ICJ.<sup>385</sup> Additionally, they can request the dispute to be examined by an impartial fact-finding commission. In this case, the fact-finding commission prepares a report including its recommendations on how to solve the dispute in an equitable way.<sup>386</sup> This commission can be considered an additional way of conciliation, but not more than that, because the parties are not bound by the recommendation. Their only obligation is to consider it in good faith.

The convention also offers the possibility for the parties to accept a dispute settlement method as compulsory if the other parties involved have done the same.<sup>387</sup>

Assuming that the convention enters into force and Danubian countries ratify it, the options for Hungary to benefit from these dispute settlement mechanisms will depend on the attitude of the polluting country, as the convention does not contain any compulsory method of settling the disputes other than through negotiation. This means that if a party does not

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<sup>377</sup> UN Watercourses Convention Article 24.

<sup>378</sup> Article 22 paragraph 2.b).

<sup>379</sup> Article 21 paragraph 2.b).

<sup>380</sup> Article 15 paragraph 2.b).

<sup>381</sup> Article 16 paragraph 2.b).

<sup>382</sup> Arbitral tribunals are usually contain one singel arbitrator or collegiate body composed of equal amount of arbitrators appointed by each of the parties and a neutral arbitrator appointed by the parties or by the other arbitrators. See: Kaczorovska (2005) p. 374.

<sup>383</sup> Aust (2005) p. 443.

<sup>384</sup> Article 33 paragraph 1.

<sup>385</sup> Article 33 paragraph 2.

<sup>386</sup> Article 33 paragraph 8.

<sup>387</sup> Article 33 paragraph 10.

declare itself bound by one of the dispute settlement means provided – and so far Hungary is the only country which has done so<sup>388</sup> – its only obligation is to try to solve the problem through negotiations. On the other hand, if parties are willing to cooperate, the convention provides a wide range of options to help them.

#### UNECE framework conventions for the protection of the environment<sup>389</sup>

Similar to the UN Watercourses Convention, the UNECE framework conventions for the protection of the environment do not determine mandatory forms of dispute resolution other than imposing an effort-oriented obligation on the parties to try to solve the conflict by the means of negotiation or „*by any other method of dispute settlement acceptable to the parties to the dispute*”. Only if these efforts did not lead to solution, the parties can turn to other peaceful means of dispute settlement.

The conventions allow the parties to accept either the jurisdiction of the ICJ or a specific form of arbitration, established by the conventions as a compulsory method of dispute settlement, providing that the other parties to the dispute have accepted the same method. If the parties all submitted themselves to both procedures, the dispute will be referred to the ICJ unless the parties otherwise agree.<sup>390</sup>

The option to declare the acceptance of a dispute settlement method compulsory is not the same as a convention itself making binding arbitration or resort to the ICJ compulsory. The UNECE framework conventions therefore leave discretion to the parties on how to solve their disputes.

With regard to the Tisza case, this would imply that if Hungary were to claim that Romania violated its obligations under the convention, the countries should first conduct negotiations or otherwise try to settle the dispute. If this would fail, Hungary could find remedy with the help of the dispute settlement methods of the convention only if Romania accepted one of the provided methods as compulsory and Hungary accepted the same method as binding. Failing that, Hungary would need to convince Romania to agree on a specific forum. With regard to the Rába case, Hungary cannot use the dispute settlement options provided by international law. This issue will be discussed below, in the Section on the collision of international and European law.

#### A regional convention, the Danube River Protection Convention

The Danube River Protection Convention differs significantly from the other conventions reviewed in this study. It is similar in the sense that it too requires parties first to attempt to solve the problem by negotiations or other peaceful means of dispute settlement, but it

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<sup>388</sup> <http://treaties.un.org> > Status of Treaties > Environment > Convention on the Law of the Non-Navigational Uses of International Watercourses.

<sup>389</sup> UNECE Water Convention, UNECE Industrial Accidents Convention, Aarhus Convention, Espoo Convention.

<sup>390</sup> UNECE Water Convention Article 22.  
UNECE Industrial Accidents Convention Article 21.  
Aarhus Convention Article 16.  
Espoo Convention Article 15.

stipulates that if these means are not successful within a reasonable timeframe, the dispute has to be submitted to the ICJ or arbitration.

The convention thus determines compulsory methods of dispute settlement and leaves the parties only the choice between these two options. If the parties accept both methods, the ICJ will have jurisdiction, whereas if the parties each choose different methods or do not declare which method they prefer, the dispute will be referred to arbitration.<sup>391</sup>

The reason behind the difference lies in the different nature of the conventions. The UNECE conventions have a wider scope and somewhat less concrete obligations than the Danube River Protection Convention, therefore a less strict formulation of the dispute settlement methods was considered to be sufficient by the parties.

On the other hand, the Danube Protection Convention is narrower in scope than the UNECE conventions and focuses on the protection of one natural resource, the river Danube. The equitable and sustainable use of the river is a fundamental interest of the Danubian countries and the protection of this interest necessitates strong cooperation of the parties. The non-compliance of any of the Danubian countries can undermine the efforts of all the others. Accordingly, the parties needed to introduce a compulsory dispute settlement method as a kind of guarantee for solving their problems.

The convention places downstream countries suffering from pollution in a better position, because in case of a conflict where the parties cannot agree on a dispute settlement mechanism, their case can be referred to arbitration as a last resort forum. However, Hungary did not use the possibility to commence such litigation in the Tisza case. The reason behind this decision is probably the sensitive nature and possible political consequences of any litigation with a neighbouring country.

#### Bilateral agreements

The Treaty between the Republic of Hungary and Romania on Understanding, Cooperation and Good Neighbourliness does not establish any dispute settlement mechanisms, but in case peaceful negotiations do not lead to solution, it states that the parties should rely on the possibilities provided by multilateral treaties on the peaceful settlement of disputes they are both party to.<sup>392</sup> This provision refers to the 1992 Convention on conciliation and arbitration within the Conference of Security and Cooperation in Europe. Whereas the conciliation procedure can be conducted at the request of any party, referring the case to arbitration necessitates the consent of all the parties to the dispute.<sup>393</sup> It means that even if Romania would not agree on arbitration, at least a conciliation procedure could be initiated.<sup>394</sup>

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<sup>391</sup> Danube Protection Convention Article 24.

<sup>392</sup> Article 21.

<sup>393</sup> 1992 Convention on conciliation and arbitration within the Conference of Security and Cooperation of Europe Article 20, 26.

<sup>394</sup> Nagy (2000).

The Treaty between the Republic of Hungary and Austria on the water management of the border region grants the Hungarian-Austrian Water Management Committee the power to settle disputes concerning the application of the agreement.<sup>395</sup>

### **European law**

As Hungary and most of its neighbours are by now Members of the European Union, it is relevant what the options of Hungary are under European law to solve disputes with other Member States on the quality of transboundary waters and find remedy for damages caused by transboundary pollution.

This Section will examine the various problem-solving mechanisms provided by primary and secondary law. With regard to primary law, the non-compliance procedure set out in Articles 226-228 of the EC Treaty and the possibility to turn to the ECJ to settle a dispute between Member States under Article 239 will be reviewed. With regard to secondary law, the European Commission's mediating role will be examined in more detail. Interesting about the various mechanisms is that they differ greatly depending on the stage they interfere into the relationship of the Member States. Some of them aim to prevent pollution, while others intend to remedy the damages caused by transboundary pollution events.

#### Compliance mechanism under the EC Treaty

##### *Infringement procedure (Article 226 EC)*

Maybe not the most direct, but definitely a practicable form of protection against transboundary pollution is to draw the attention of the European Commission to a breach of law and hope that it will start a so-called infringement procedure pursuant to Article 226 of the EC Treaty against the upstream Member State for failing to fulfill an obligation under European law. The right to complain about such infringement is not a prerogative of Member States: individuals, NGOs, *etcetera*, can also use this possibility.

In the Rába case, Hungary tried to find remedy indirectly through the help of the Commission. It drew the attention of the Commission to the foaming of the river in the form of a written question by one of its members of the European Parliament, but the Commission was not willing to start an infringement procedure against Austria for failing to meet its obligations under European law. The Commission referred to a lack of specific information on the technical situation and recalled the applicable legislation which, according to the Commission, did not prohibit the use of naphthalene-1.5-disulphonate.<sup>396</sup>

As the Rába case shows, it is never guaranteed that the Commission will agree that there is a breach and that it will take action. Starting the compliance procedure under Article 226 is fully at the discretion of the Commission.

As indicated before, with regard to the infringement procedure, it must be noted that its main objective is not to provide redress to the initiator Member State, but that it is a tool for the

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<sup>395</sup> Article 13. paragraph 1.h.

<sup>396</sup> Written question No P-4838/05 and Answer.

Commission to enforce compliance with Community law.<sup>397</sup> Nevertheless, the initiating Member State can greatly benefit from such a procedure if the polluting state ceases the polluting action as a result of the procedure.

According to the 25<sup>th</sup> annual report of the Commission on monitoring the application of Community law, most of the petitions to the European Parliament requesting information from the Commission are related to the environment (146 out of 420 petitions in 2007).<sup>398</sup> Most of these petitions concern air and water pollution, pollution which can have transboundary impact. According to the Commission, the reason behind the low rate of compliance with environmental legislation is the 'broad and ambitious' *acquis* which often results in 'late and incorrect' transposition of the directives.<sup>399</sup> In any case, stepping up action against the infringement of environmental legislation will not only help enforcing Community law but will also benefit countries suffering from the non compliance.

Starting an infringement procedure is the competence of the Commission, which stems from its role of being the 'guardian' of the EC Treaty.<sup>400</sup> The guardian function does not empower the Commission to impose sanctions on the infringing Member State; its power rather lies in its competence to refer cases to the ECJ. The ECJ can then order measures to be taken to ensure compliance. If the Member State fails to take the necessary measures, the Commission can step again and summon the Member State before the ECJ. The court then can impose a lump sum or penalty payment on the non-complying Member State at the request of the Commission.<sup>401</sup> The possibility to impose a financial sanction was intended to strengthen the procedure, and was introduced to the EC Treaty in 2002. By now, the court uses financial sanctions even in cases where immediate compliance is not an option because of the type of the breach (such as the inadequate quality of bathing waters for instance) if the breach persists for too long.<sup>402</sup>

The weakness of the infringement procedure, however, is that the European Community has no power to enforce the decision of the ECJ and collect the fines imposed.<sup>403</sup> The court does not actually have the possibility to set a deadline for complying with the judgement.<sup>404</sup>

Therefore, from the point of view of a downstream country suffering from the unlawful behaviour of an upstream country, the outcome of the infringement procedure is not always satisfactory. At the end of the day, it depends on the good will of the upstream country to take appropriate measures, or to pay the fine imposed on it.

Nevertheless, it seems that it is always worth drawing the attention of the Commission to a breach of law, because the procedure can stimulate compliance by the Member States. The multiple-stage structure of the procedure, more and more formal at every next stage, is

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<sup>397</sup> Craig and De Burca (2004) p. 428.

<sup>398</sup> 25th Annual Report of the Commission on Monitoring the Application of Community Law (2007). COM(2008) 777 final p. 3.

<sup>399</sup> *Ibid* p. 5.

<sup>400</sup> According to Article 211 of the EC Treaty, the Commission shall ensure the provisions of the EC Treaty.

<sup>401</sup> EC Treaty Article 228.

<sup>402</sup> Craig and De Burca (2004) p. 454.

<sup>403</sup> *Ibid* p. 453.

<sup>404</sup> *Ibid*.

designed to help voluntary compliance.<sup>405</sup> Indeed, not every infringement procedure ends before the ECJ, as in most of the cases an agreement is reached in the earlier stages of the procedure. According to the annual report of the Commission, in 2007, around 70% of the cases was closed during the informal part of the procedure and only 7% of the cases ended with a ruling of the court.<sup>406</sup> These statistics suggests that the action of the Commission does stimulate the cooperation of the Member States and by ensuring the proper application of EC law, it eventually leads to better protection of the rivers.

#### *ECJ procedure at the request of the victim state (Article 227 EC)*

A more direct possibility for victim states to obtain the compliance of a polluting state with its obligations under EC law is to bring the matter before the ECJ pursuant to Article 227 EC. In this procedure, it is not the Commission but a Member State who starts the court procedure. The Commission's role as the guardian of the EC Treaty is limited to delivering a reasoned opinion after studying the positions of the states, but even if it does not deliver the reasoned opinion within the required three months, the Member State can still bring the case to the ECJ.

The procedure under Article 227 EC is not a very popular way of solving problems among Member States however, because summoning a neighbouring state to court is a politically sensitive decision, and maintaining good relationships with neighbour states is usually considered more important. Presumably, this was the reason why in the Rába case Hungary did not use this option to find remedy. Instead, Hungary decided to rely on the Commission's actions to ensure compliance under Article 226 EC and tried to use political means to solve the problem. This conduct appears rather typical for Member States in general to avoid direct conflicts with their neighbours.<sup>407</sup>

#### *ECJ procedure at the mutual request of the Member States (Article 239 EC)*

Besides taking advantage of the compliance procedure, a downstream Member State has the possibility to solve its transboundary water disputes with an upstream state by bringing its case before the ECJ. The ECJ has jurisdiction to solve the dispute only if both Member States agree to use this form of dispute settlement. If both parties agree on turning to the ECJ, this procedure provides a direct and more effective solution to the problem.

In the Rába case Hungary did not initiate an ECJ procedures under Articles 227 and 239 EC. The main reason appears to be that Hungary wanted to avoid a direct confrontation with Austria, and hoped to find a solution by way of negotiations and mutual cooperation. But also, the outcome of the procedure was hard to predict, and Hungary could well have lost the case if the Court shared the opinion of the Commission that there was no actual

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<sup>405</sup> The procedure starts with an informal stage in which the Member State and the Commission exchange their positions. If no accommodation was found, the Commission formally notifies the state of the infringement and sets a deadline for response. If the problem is still not resolved, the Commission issues a reasoned opinion, setting a final deadline for compliance before bringing the case before the ECJ. See Craig and De Burca, 2004, p. 432.

<sup>406</sup> 25th Annual Report of the Commission on Monitoring the Application of Community Law (2007). COM(2008) 777 final p. 2.

<sup>407</sup> Keessen at al. (2008) p. 47; Craig and De Burca (2004) p. 451-452.



European legislation which prohibited the use of naphthalene-1.5-disulphonate. (In the Tisza case this option did not exist as the involved countries were not members of the EU yet).

#### *The European Commission as a mediator in the WFD*

Dispute settlement methods cannot only be found in the EC Treaty, but in secondary law as well. The WFD for example gives the opportunity to Member States to ask help from the European Commission when they struggle implementing the directive. According to Article 3.3, the Commission shall help the Member States in case they have difficulty in assigning a river basin to an international river basin district. In the case of the Danube such difficulty did not occur as the Member States had already been cooperating on the management of the Danube river basin under the Danube River Protection Convention, therefore it was logical to assign the whole Danube basin to one international river basin district. Once the international river basin district is assigned, the Commission's task is to facilitate the establishment of the programmes of measures pursuant of Article 3.4.

In both cases, the Commission acts only at the request of a Member State, and therefore its role is to facilitate the implementation of the directive and promote the cooperation mechanism, but not to enforce compliance. Member States can opt for this if they cannot agree on certain issues concerning the implementation of the directive.

By assigning such a mediator role to the Commission, the WFD intended to prevent later conflicts by helping to cure problems at an early stage. As the implementation of the WFD itself is in an early phase still, it is hard to tell whether Member States will actually make use of the problem-solving mechanism under Article 3.4 and even though the river basin districts have been designated and assigned, the author of this study did not find any information on whether the Commission had to help any of the Member States in this process.

The Commission's problem-solving function also extends to cases 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"*.<sup>408</sup> Such an event could for instance exist when the quality of the rivers of a Member State is affected by pollution coming from another Member State because national management measures are not enough to prevent or overcome the problem. If a Member State reports such an issue to the Commission, it has to respond within six months but the directive does not elaborate on what exactly the Commission has to do as a response. The role of the Commission in these debates is not more than one of trying to achieve reconciliation as it has no power to impose binding decisions on the Member States, and can only recommend ways to tackle the problem. Consequently, the problem solving mechanism of Art 12. is not a powerful tool for a Member State trying to protect its rivers. The Commission's role could be somewhat stronger as the example of the Marine Strategy Framework Directive (2008/56/EC)<sup>409</sup> shows. This latter directive contains a similar mechanism to the one in the WFD for those issues which cannot be resolved at national level. Once the help of Community institutions is needed, the Member State can recommend response measures to the Commission. Even though just like the WFD, the

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<sup>408</sup> WFD Article 12.2.

<sup>409</sup> Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy.

Marine Strategy Framework Directive does not specify how the Commission should respond to the Member State, it does provide a little solace when it calls on the Commission to reflect the recommendations of the Member State in its relevant legislative proposals.

Asking the advice of the Commission can be a double edged weapon, however. If the Commission finds that the complaining downstream Member State is also responsible for the pollution, it can start compliance procedures against it pursuant to Article 226 of the EC Treaty for not complying with the objectives of the directive. Accordingly, a Member State is wise to only turn to the Commission for help if it can prove (for instance by monitoring water quality at the border), that the pollution originates in the upstream country.<sup>410</sup>

### **Collision of international and Community law (Article 292 EC)**

Having reviewed the various different fora that downstream countries have, it appears that many different options for finding remedy exist, albeit depending on the legal instrument regulating the matter. Unfortunately, the abundance of dispute settlement mechanisms is necessarily a positive thing, as the collision of the different fora can result in incoherent procedures or decisions. To avoid overlap between the dispute resolution procedures of international law and Community law, Article 292 of the EC Treaty removes the discretion of forum-choosing from the competence of the Member states and orders Member States to submit their disputes to dispute settlement methods provided by the EC Treaty if the dispute concerns its interpretation or application.

#### The Mox plant case

The interpretation of this provision can be problematic, as it is often hard to decide whether a dispute in question concerns the EC Treaty or not. A good example is the dispute between Ireland and the United Kingdom over a plant reprocessing nuclear fuel, called the Mox Plant, operated by a British company located close to the Irish coasts.<sup>411</sup> Ireland considered the plant potentially polluting, and tried to block the activity.

To achieve this, it requested *ad hoc* arbitration under the 1992 Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Convention) for violating the provisions of the convention on providing information. But it also turned to the arbitral tribunal established pursuant to Annex VII of the 1982 United Nations Convention on the Law of the Sea (UNCLOS), claiming that the United Kingdom breached the provisions of UNCLOS.<sup>412</sup>

Initiating two separate procedures is problematic in itself - as it can easily result in two incompatible decisions - but this case was further complicated by the European Union membership of both the countries, as Article 292 EC prevents Member States from submitting a dispute concerning the interpretation or application of the EC Treaty to any method of settlement other than those provided in the EC Treaty.

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<sup>410</sup> Keessen at al. (2008) p. 46.

<sup>411</sup> Shany (2004) p. 817.

<sup>412</sup> Romano (2007) p. 1048-1049.

In the Mox Plant case, the European Commission started an infringement procedure against Ireland arguing that by submitting the dispute to the arbitral tribunal, Ireland had violated the exclusive jurisdiction of the ECJ pursuant to Article 292 EC. The case was brought before the ECJ by the Commission.<sup>413</sup> In its decision, the ECJ found that Ireland had indeed violated Article 292 EC, because as the European Community itself is also party to the UNCLOS, the convention became an integral part of the EC legal system. Accordingly, Ireland's claim that the United Kingdom breached the provisions of the convention actually concerned a breach of the EC law. The court made clear that when the debate concerns a mixed agreement – an agreement ratified by both the Member States and the EC - Member States have no discretion to opt for any other method of dispute resolution then bringing the case to the ECJ.<sup>414</sup>

To further secure its exclusive jurisdiction, the ECJ stated that it is only up to the court to decide whether a dispute falls within its exclusive jurisdiction, and if Member States have doubts whether their conflict concerns the interpretation of Community law, they should ask the opinion of the ECJ on the matter. Only if the ECJ considers the dispute to fall outside its jurisdiction are the Member States free to bring the case before another dispute settlement body.<sup>415</sup>

Further, even if the Member States are not in doubt concerning the nature of the dispute, the ECJ found that based on the loyalty clause in Article 10 EC, Member States are obliged to notify the European Commission before they initiate proceedings before another international dispute settlement forum.<sup>416</sup>

The judgement of the ECJ has far-reaching consequences for transboundary river pollution disputes between Member States. As all major international conventions in force (the UNECE Water Convention, the Convention on the Transboundary Effects of Industrial Accidents, the Aarhus Convention, the Espoo Convention and the Danube Protection Convention) have been ratified by the EC, they have become part of EC law, thus giving exclusive jurisdiction to the ECJ. Consequently, the options of disputing Member States to choose a forum for settling their disputes is limited to the ECJ. They are not allowed to turn to the ICJ, or use the arbitral tribunals of the relevant international conventions, or any other body of dispute settlement. The exclusive jurisdiction of the ECJ not only substantially limits the options to use dispute settlement bodies other than the ECJ but it also weakens the dispute settlement mechanisms of the international conventions, since many of their parties cannot use them for the interpretation of the conventions.<sup>417</sup>

It has to be pointed out that the exclusive jurisdiction of the ECJ does not mean that Member States cannot rely on the protective power of international law but it only means that the ECJ and not the dispute settlement body of the treaty in question will provide justice to those Member States which are parties to the treaty. Accordingly, in case of a new cyanide spill in Romania for instance, Hungary could refer to the violation of the relevant international

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<sup>413</sup> Case C-459/03 (Commission v. Ireland) judgement of 30.05.2006.

<sup>414</sup> Lavranos (2006) p. 293.

<sup>415</sup> *Ibid* p.294.

<sup>416</sup> *Ibid*.

<sup>417</sup> *Ibid*. p. 296.

treaties, but since all the major treaties are ratified by the EC and therefore became part of Community law, it could only do so in front of the ECJ and not the dispute settlement body of the treaty in question.

#### The Iron Rhine case

On the other hand, if the dispute between the Member States is based on an international treaty to which the EC is not a party, and it does not concern the interpretation or application of the EC Treaty, the Member States are free to bring the matter to the competent international forum. In the Iron Rhine case for instance the Netherlands and Belgium brought their dispute to the Arbitral Tribunal of the Permanent Court of Arbitration. Even though both parties referred to European law in their pleading, they agreed that as the dispute only concerned the costs of reopening a railway line, Article 292 had not been breached.<sup>418</sup> They argued that the Tribunal did not have to interpret the relevant directives because they are implemented into national law, therefore the Tribunal only had to examine the national legal instruments.<sup>419</sup> This perhaps somewhat odd reasoning was not challenged by the Commission.<sup>420</sup>

#### Relevance for Hungary

For Hungary, the country's accession to the EU opened up new possibilities to find remedy for damage caused by pollution coming from another Member State, but at the same time ended opportunities to rely on dispute settlement mechanisms provided by international agreements it was already party to. Further, Hungary could not even turn to the ICJ anymore for disputes with neighbouring Member States, as the exclusive jurisdiction of the ECJ overrules the universal jurisdiction of the ICJ. Consequently, Hungary can only use the options provided by the EC Treaty, namely either draw the attention of the Commission to the pollution and hope that it starts an infringement procedure under Article 226 EC, or bring the case before the ECJ under Articles 227 or 239 EC.

On the other hand, in cases similar to the Iron Rhine case, there is some room for the Member States to slip out of the exclusive jurisdiction of the ECJ. This possibility is rather limited for Hungary as it only applies to disputes which are based on bilateral legal instruments as the EC is not party to those. Further, the dispute has to concern an issue which does not necessitate the application or interpretation of EC law. Nevertheless it is possible that ECJ finds that a dispute does not concern European law. In the Rába case for instance the Commission found that there was no breach of European law.<sup>421</sup> If the ECJ were on the same opinion, theoretically it would open the possibility for Hungary to submit the dispute to another dispute settlement forum.

Concerning disputes with non Member States, such as the Ukraine, Hungary still has the possibility to settle the dispute with the help of international tribunals.

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<sup>418</sup> Rijswick (2009) p. 16.

<sup>419</sup> *Ibid.*

<sup>420</sup> Another example when a dispute between two Member States concerning transboundary pollution did not concern the interpretation or the application of the EC Treaty was the Rhine Chlorides Arbitration. See also Section V.4.1 on arbitration, above.

<sup>421</sup> Written question No P-4838/05 and Answer.

#### **V.4.2. Procedural aspects of claims towards private parties**

When states wish to claim compensation for transboundary pollution damage from a company operating in another state, they have to choose whether to turn to a national tribunal with jurisdiction or - if the other party agrees - to bring the case to arbitration.<sup>422</sup> To decide which national court has jurisdiction to adjudicate the case, and which national law should apply, disputing parties have to rely on international civil liability regimes or international agreements. Where there is no regime or agreement in force, the national laws of the states will apply. In such event, the enforcement of the decision in another state can be problematic unless there is an international agreement in force for the recognition and enforcement of the decision.

#### **International private law**

In international private law, there is no civil liability regime which provides rules on jurisdiction in civil liability disputes. Neither the Lugano Convention nor the Kiev protocol on civil liability for industrial accidents are in force. Therefore, their rules on jurisdiction and on the recognition of decisions are not applicable.

In the absence of international regimes, states can rely on the rules on jurisdiction of international agreements. However, Hungary also adopted its own national law on international private law containing rules on jurisdiction and on the recognition of foreign decisions. To make sure that its decisions are enforced abroad, it concluded bilateral agreements with many other countries on legal assistance and the mutual recognition of the decisions of each others courts. There is such an agreement in force between Hungary and each of its upstream neighbours.

#### The Tisza case

Especially the Tisza case offers a good example to show the practice for the situation when a state wishes to claim damage from a foreign operator: after the accident, the Hungarian state initiated litigation before the County Court of Budapest against the operator of the gold mine, called Transgold S.A., the successor of Aurul S.A. which operated the gold mine at the time of the spill. The Hungarian State in its action claimed the compensation of its damage and asked the court to impose obligations on the defendant to take safety measures.

In Hungary, the rules of collision of two national legal system are laid down in the Law-decree 1979. 13. on international private law. The court based its jurisdiction on Article 54 and 56-61 of the Law-decree. Article 54 stipulates that a Hungarian court has jurisdiction in every case brought before it, unless its jurisdiction is excluded by Article 56-61. As the action of Hungary did not fall under any of the exemptions, the court established its

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<sup>422</sup> It also applies if the company is wholly or partially state-owned. A claim against a state directly is troublesome because of state sovereignty issues, but when the state acts through a company, that generally does not apply. The difference lies in the distinction between *acta iure imperii* (acts by right of dominion, for which states are generally immune from foreign jurisdiction as a consequence of state sovereignty) and the *acta iure gestionis* (acts by right of management, which do not give states the aforementioned immunity).

jurisdiction.<sup>423</sup> The court applied Hungarian law in its ruling. According to the general rule of the Law-decree, the law of the country where the activity causing the damage was carried out should be applied.<sup>424</sup> However, when the law of the country where the damage occurred is favourable to the victim, the law of that country should be applied.<sup>425</sup> In the Tisza case the court felt that Hungarian law was more favourable to the plaintiff than Romanian law because under Hungarian law the operator - besides being obliged to pay compensation - can also be compelled to take further safety measures or to cease the polluting activity if the activity spells threat to the environment.

The court decided to deliver only an interim judgement because even though it found that the action was well-founded, it considered it necessary to collect further evidence in order to establish the exact amount of money to be paid by the operator.

The case has not been closed yet, but even if the court delivered its final judgement in favour of Hungary, enforcement of the judgement would probably be a huge challenge.

### Enforcement

When a court condemns a foreign-based operator to pay a certain amount as compensation to the plaintiff, the questions arise why the operator would submit to the decision of a foreign court, how the decision can be enforced in the domicile country of the operator, and what the public international law base is for enforcing a decision in another country.

If the dispute is brought to the court of the victim state, an agreement is needed between the two states on the mutual recognition of the decisions of the tribunals in order to allow enforcement of the decision.

For example, if the Hungarian court delivers a final judgement in the Tisza case favourable to Hungary, it will be enforceable in Romania because the two countries conducted a bilateral treaty on mutual legal assistance in civil, family and criminal law matters in 1958, which is still in force.<sup>426</sup> According to Article 46 of this treaty, the parties enforce on their own territory the legally binding decisions delivered in the territory of the other party in civil, family and criminal law matters. On the other hand, even if the enforcement of foreign judgements is not a problem between the two countries, it does not mean that it will result in actual compensation. Transgold S.A. is insolvent, and even if there was a legally binding decision on the amount of compensation, the Hungarian State would be only one of the company's many claimants.<sup>427</sup> Further, at the time of the accident, the insurance of the predecessor Aurul only covered the damage which occurred in Romania.<sup>428</sup>

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<sup>423</sup> Tisza case (2001).

<sup>424</sup> Article 32 paragraph 1.

<sup>425</sup> Article 32 paragraph 2.

<sup>426</sup> 1958 Treaty between the People's Republic of Hungary and the People's Republic of Romania on legal assistance in civil, family and criminal law matters.

<sup>427</sup> Népszabadság online: Csődbe menekülhet a tiszai ciánszennyezés felelőse. 28.10.2005. Available in Hungarian at: <http://www.nol.hu/archivum/archiv-382308>.

<sup>428</sup> *Ibid.*

It has to be noted that even though by now both Hungary and Romania are part of the EU, the Liability Directive cannot be applied in the Tisza case because the directive does not apply to pollution which took place before the date of its transposition.<sup>429</sup>

#### Arbitration under national law

Bringing the dispute to a national court with jurisdiction is not the only option of a state to vindicate its claim against a private polluter, but only if both parties agree, they can submit the dispute to arbitration. In fact in the Tisza case the representative of the Romanian mining company argued that the arbitration would be a much more independent, therefore more adequate way of settling the dispute, than turning to a Hungarian national court.<sup>430</sup>

#### **European law**

While under international private law the colliding jurisdictions of national courts and the enforcement of foreign decisions can be complicated, under European law the victim state faces further difficulties when submitting a claim against a private person.

Under European law, the question is whether a state may claim compensation for the suffered damage from a private company. For Hungary, this is an important question as by now its biggest upstream neighbours including Romania are EU members, and therefore if a company discharges pollution to a river in one of those countries, which pollution eventually causes damage to the environment in Hungary, the Hungarian state will have to rely on European law when claiming compensation.

#### Jurisdiction: Brussels I Regulation

Before a Member State of the EU wishes to claim compensation for damage arising from transboundary pollution caused by a company operating in the territory of another Member State, it has to make sure that it has right to start a civil law procedure under the scope of the so-called Brussels I Regulation on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters.<sup>431</sup>

#### *Scope*

Pursuant to Article 1 of the regulation, the regulation only applies to civil and commercial matters. A state can therefore only find remedy by means of civil law, if the dispute can be considered a civil matter. In its case law, the ECJ ruled that a matter cannot be considered as civil if a government body "*acts in the exercise of its public powers*".<sup>432</sup> Unfortunately, it is by no means straightforward to determine what constitutes as such an act. The case law of the ECJ shows that the court is of the opinion that if a government body when claiming

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<sup>429</sup> Article 17.

<sup>430</sup> Tisza case (2001).

<sup>431</sup> Council Regulation 44/2001/EC on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters.

<sup>432</sup> See e.g. ECJ case 29/76 LTU v. Eurocontrol, ECR 1976, ECJ case 814/79 Netherlands v. Rüffer, ECR 1980; Graziano (2007) p. 81; Keessen *et al.* (2008) p. 49.

compensation for damages exercises rights that a private party does not have, it acts in the exercise of its public powers.<sup>433</sup>

The *Rüffer* case<sup>434</sup> is a good example of the ECJ's case law concerning this matter. In that case the plaintiff was the Dutch State, responsible for removing the wreck of a German vessel, which sank in a Dutch river after colliding with a Dutch ship. The Dutch authorities hired a Dutch company to remove the wreck and claimed compensation from the German owner of the ship.<sup>435</sup> The ECJ found that the Netherlands exercised a right that private persons could not, as the costs for cleaning up a public waterway would never be incurred by private parties, and thus it could not claim compensation either.<sup>436</sup> Consequently, the court did not apply the Brussels I Regulation, saying that the legal relationship underlying the claim was public in nature.<sup>437</sup> The decision of the court suggests that a state has better chances to find civil law remedy under European law if the claim is based on rights which private persons can also exercise, such as property rights, than if the claim is based on the exercise of the public duty to protect or clean up the environment.<sup>438</sup>

In its later case law the ECJ adopted a somewhat broader view. In the *Baten* case<sup>439</sup> a Dutch community claimed compensation for the monthly contribution paid to a woman under Dutch social law, because her husband did not pay the maintenance after their divorce. The community claimed the recovery from the husband living in Belgium. The ECJ held that the community's action of recovery is within the scope of the Brussels I Regulation as long as the action is exercised in line with the rules regulating recovery actions between private parties.<sup>440</sup> Even though the *Baten* case concerned social matters, the ruling of the court could be applied to disputes related to the compensation of environmental damage. In that case the action of a government body to recover the costs of cleaning up the rivers would also fall under the scope of the Brussels I Regulation if the recovery is in accordance with the rules concerning recovery actions between private parties.<sup>441</sup>

A further impetus for the ECJ to reconsider its arguments is the entry into force of the Liability Directive. According to Article 3.3, “[w]ithout prejudice to relevant national legislation, this Directive shall not give private parties a right of compensation as a consequence of environmental damage or of an imminent threat of such damage.” At the same time Article 15.3 provides that in case a Member State identifies damage on its territory caused by transboundary pollution, it can seek the recovery of the costs of the preventive or remedial measures. The directive does not establish additional rules for such a recovery action against the polluter but instead refers to the rules of the Brussels I Regulation.<sup>442</sup> As under European law there are no special rules enabling a government

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<sup>433</sup> Keessen *et al.* (2008) p. 49.

<sup>434</sup> ECJ case 814/79 Netherlands v. Rüffer, ECR 1980.

<sup>435</sup> Graziano (2007) p. 82.

<sup>436</sup> Keessen *et al.* (2008) p. 49.

<sup>437</sup> *Ibid.*

<sup>438</sup> Keessen *et al.* (2008) p. 50.

<sup>439</sup> ECJ Case C-271/00 Baten, ECR 2002.

<sup>440</sup> Graziano (2007) p. 82.

<sup>441</sup> Graziano (2007) p. 82.

<sup>442</sup> Recital 10; Graziano (2007) p. 84.



body to seek compensation against a private party for environmental damage, the provisions of the Liability Directive would not be enforceable if the scope of the Brussels I Regulation did not cover such actions.<sup>443</sup>

### *Jurisdiction*

Once it is determined that a dispute falls under the scope of the regulation, the provisions on jurisdiction have to be examined to find out which national court can accept the case. According to Article 2, the main rule is that the domicile of the defendant will determine the jurisdiction of the court but pursuant to Article 5.3, the claim can also be brought to the court where the harmful event occurred or may occur.

It is hard to interpret what the term '*where the harmful event occurred*' means, as in transboundary pollution cases the place where the pollution is caused is in a different country than the place where the damage occurs. Clarification can be found in the case law of the ECJ concerning the same term used in the 1968 Brussels Convention.<sup>444</sup> According to the interpretation of the ECJ, "[the term] must be understood as being intended to cover both the place where the damage occurred and the place of the event giving rise to it".<sup>445</sup> This means that the downstream country can consider which court is more favourable for it, the national court of the polluter based on Article 2 or its own national court. Opting for the court of the country where the damage occurred can have the advantage that it is easier to collect evidence to prove the damage, while starting litigation in the country where the polluter is resident has the advantage that it is easier to execute the decision of the court.

### Applicable law: Rome II Regulation

After the plaintiff has decided in front of which court with jurisdiction to start litigation, the competent court has to determine the applicable law based on the Rome II Regulation, which is directly applicable in the Member States.

### *Scope*

The regulation complements the rules of the Brussels I Regulation in the sense that together they provide a procedural framework for litigation in civil and commercial matters. Accordingly, the scope of the Rome II regulation is similar to the scope of the Brussels I Regulation as it covers only civil and commercial matters. The two legal instruments raise the same problems regarding their applicability when a state claims damage arising from transboundary river pollution.<sup>446</sup>

It can be argued that the scope of the regulation should be interpreted in a way that the claim of a state to find compensation for pollution damage is civil in nature. An argument in favour of this interpretation is that Article 7 of the regulation makes a distinction between environmental damage and damage sustained by persons or property. The distinction

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<sup>443</sup> Graziano (2007) p. 84.

<sup>444</sup> Brussels Convention on Jurisdiction and the Enforcement of Judgments in Civil and Commercial Matters (1968).

<sup>445</sup> ECJ case C-21/76 Mines de Potasse d'Alsace, ECR 1978.

<sup>446</sup> Keessen *et al.* (2008) p. 53.

entails that purely environmental damage can be claimed under the convention. On the other hand, according to the Liability Directive, such damage can be recovered only by public authorities. The collation of the two legal instruments suggests that a government or government body should be able to base its claim for environmental damages on the Rome II Regulation.

#### *Applicable law*

According to the main rule of the regulation, in cases relevant to transboundary pollution, the law of the country where the damage occurred should be applied, regardless of where the event giving rise of the damage took place.<sup>447</sup> Alternatively, in environmental cases, Article 7 gives the choice to the plaintiff to “*base his or her claim on the law of the country in which the event giving rise to the damage occurred*”.

The plaintiff has to consider which option is more favourable. It might be practical to choose the law of the state where it chose to litigate, as that court would be familiar with it. In a dispute between the Hungarian state and an Austrian operator brought before a Hungarian court, the court may find it difficult to apply Austrian law properly, and would need to turn to Austria for legal assistance making the procedure lengthy.

#### **V.4.3. Findings**

If a state has to find remedy for river pollution originating outside its borders, it means that the efforts of the riparian states cooperating in the river basin to prevent the degradation of their rivers failed. The downstream country has then no other choice than try to find remedy for the damage. It follows from the ‘polluter pays’ principle that the polluter should be the one who provides the remedy.

But who is the polluter? Is it the state which failed to act with due diligence when regulating and controlling the activities of industrial companies on its territory, or is it the operator of the company who discharged the pollutants into the river? Reviewing international and European law, it can be concluded that remedy can be claimed from both, but the form of the remedy, the rules of responsibility and liability and the procedural rules will differ greatly.

International law provides various dispute settlement methods to claim remedy from another state, most of which require the consent of both parties. Remedy also can be obtained from the operator in front of arbitral tribunals or national courts. Hungary chose this latter option in the Tisza case, avoiding formal dispute with Romania.

By now, the EU membership of Hungary and most of its upstream neighbours has limited its options due to Article 292 of the EC Treaty, which entails that only the dispute settlement options provided by the EC Treaty may be used in disputes concerning application and interpretation of EC law. In the Rába case however, Hungary did not even take advantage of these available options. Other than a weak attempt to find remedy with the help of the infringement procedure, Hungary did not use its possibilities under European law to step up against Austria. It chose to solve the problem by the means of cooperation which took a very

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<sup>447</sup> Article 4.1.

long time but at the end did result in the installation of filtering devices contributing largely to the solution.

The lesson learnt from reviewing the remedial options of a downstream country is that finding remedy can be very hard and often perhaps impossible. Disputes can harm the relationship of neighbouring countries and the lack of power to enforce the decisions of the international tribunals is a further downside to submit a claim against another state.

Channeling the claim to the operator does not guarantee success either. Under European law the relationship between the Liability Directive and the Brussels I and the Rome II Regulations is unclear. But even if there are no doubts about jurisdiction and applicable law and there are no procedural obstacles preventing the enforcement of a decision abroad, the insolvency of the polluting company can hinder the remedy. This problem could be overcome by developing financial security systems covering transboundary damage as well which could help to avoid situations where the financial resources of the operator are not enough to cover the claims of all claimants. The Lugano Convention tried to introduce a compulsory financial security scheme but the convention did not enter into force. It is promising that the Liability Directive also encourages the Member States to develop financial security systems. It does not specify though that these systems should be able to deal with the problem of transboundary damage.

The real solution, though, is to focus on prevention and mutual cooperation in the river basin to decrease the number of cases when remedial actions have to be used.

## VI. CONCLUSION

In international river basins the quality of waters in countries situated downstream will largely depend on the amount of pollution discharged into the rivers upstream. This dependency can cause tensions and sometimes even legal disputes between neighbouring states but it also compels them to cooperate in managing their rivers jointly. Such management has a legal basis in both international and European law.

This study used two examples to present the major problems stemming from the transboundary character of river pollution. Both the cyanide spill at Baia Mare (Romania) which polluted the Tisza river and the naphtalene-1.5-disulphonate discharge of Austrian leather factories which polluted the Rába river were cases of industrial pollution which degraded the environment and caused serious economic and social damage in a downstream country, Hungary.

With the help of the two example cases, this study aimed to find out ***to what extent does international law and European law contribute to the protection of the rivers of Hungary from transboundary pollution caused by industrial activities?***

To answer the research question, this study first analysed the international and European legal instruments regulating transboundary industrial river pollution, and set out their relevance to the example cases. It showed how complex the problem is and highlighted many unresolved legal issues.

It found that international law provides legal protection by the means of a number of framework conventions which regulate the problem on a general level referring to legal principles, laying down the major obligations of states and asking for the cooperation of the parties in conducting agreements on the specific rules. The more specific the regulation is, the easier it is for riparian states to apply them in exact cases.

The review of European legal instruments relevant for transboundary pollution caused by industrial activities showed that European law provides a rather strong legal protection centered on water legislation. In case the pollution concerns a substance which is covered by the relevant directives, European law provides a fair number of legal means for the Member States to stand up against the polluter. One issue is that the victim state is not exempt from the WFD's requirements regarding good ecological status of its water bodies, even if its failure to comply is a result of transboundary pollution. However, the directive recognised that its targets can only be reached if the Member States cooperate on a river basin level, therefore it imposed duties on Member States to carry out integrated river management for the river basins.

Downstream states can face problems when the pollution falls outside the scope of the relevant directives. In line with the subsidiarity principle,<sup>448</sup> European law does not regulate the discharge of all polluting substances used by industries but only those which require Community action. In the Rába case this meant that, other than on a general obligation to cooperate, Hungary could not rely on European law to protect its rivers and had to resolve

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<sup>448</sup> EC Treaty Article 5.

the problem without any guarantee that Austria would cooperate in bringing the polluting activity to a halt. Fortunately, bilateral cooperation resulted in the cessation of the polluting activity, showing that cooperation can be the solution to the problem where legal means to protect the rivers are in short supply.

The study also examined what kind of remedies Hungary as a downstream country can find if both the legal regimes, and cooperation were insufficient in preventing the pollution of one of its transboundary rivers. Even though both international and European law aim to prevent pollution taking place in the first place, not even the most thorough legal protection regime or the best implemented river basin management system can ensure that pollution never happens. Legal obligations can be breached and cooperation can fail. For those cases, the legal regimes should enable the downstream country suffering from the consequences of the pollution to enforce its claims.

Both under international and European law, remedy can be claimed - in line with the 'polluter pays' principle - from both the state where the pollution originated in case the responsibility of the state can be established and the operator of the facility which discharged the pollutant. However, downstream states will generally be reluctant to enter into formal disputes with their polluting neighbours or even to turn to the European Commission for help. Further, both the substantive and the procedural rules of state responsibility and operator's liability are rather complex and sometimes ambiguous, a matter which is further complicated by Article 292 of the EC Treaty limiting the options of Member States to find a remedy in front of international tribunals.

As regards to the two case studies the following can be found:

The cyanide spill in Baia Mare took place before Hungary and Romania joined the EU, therefore only international law can be applied for the case. Besides customary international law, Hungary could have based its claim for remedy against the Romanian state referring to the violation of the conventions ratified by Romania.<sup>449</sup> However, Hungary decided not to enter into dispute with its neighbour but rather channeled the claim to the polluting company in front of a Hungarian national court, based on international private law rules on jurisdiction and applicable law. This means that even though international law did provide protection to a certain extent, Hungary was reluctant to benefit from it, partly because it wanted to preserve its good relationship with Romania but probably also partly because it is rather hard to prove the responsibility of Romania. This decision has the consequence though, that due to the insolvency of the operator, it is unlikely that Hungary will ever find remedy for the damage suffered.

In the Rába case International law provides similar protection as in the Baia Mare case, meaning that Hungary could argue that Austria has breached its obligations stemming from the conventions ratified by it. It could also bring the operators to court, as it did in the Baia Mare case. The regulations of European law could also be applied but unfortunately the directives relevant for transboundary water pollution do not regulate the discharge of the polluting substance naphthalene-1,5-disulphonate, because it is not considered to be

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<sup>449</sup> The UNECE Water Convention, the Danube Protection Convention and the Treaty between the Republic of Hungary and Romania on Understanding, Cooperation and Good Neighbourliness.

dangerous enough to regulate it at Community level. The EC leaves it to national legislators to adopt regulation if they deem it necessary. In case of the Rába, the cooperation of Austria and Hungary lead to solution at the end.

Evaluating the findings of this study, the answer to the research question has to be that international and European law do not provide full protection for Hungary from transboundary pollution caused by industrial activities. Even though the regulatory framework is quite developed, it is not comprehensive enough to provide full protection. The effectiveness of the legal protection offered by international law largely depends on to what extent its framework rules are elaborated on in national legal systems. European law contains detailed regulations, but only provides extensive protection against pollution caused by the most dangerous substances. When the pollutant is not regulated by European law, the protection of the quality of rivers in downstream countries largely depends on the national laws of upstream countries. Furthermore, finding remedy once pollution happened has many barriers. Uncertainty about the competent forum, and the lack of effective mechanisms to enforce decisions, hamper a downstream country in finding adequate remedy when it suffered from transboundary river pollution.

The question is then what the solution could be? How can better protection be achieved?

In my view, the international cooperation that is stressed in most legal instruments and is a firm part of the river-basin approach, is indeed the key to any success in water management. As has been shown, virtually all relevant international and European legal instruments recognised that transboundary water pollution can only be tackled if the riparian countries work together in improving the quality of their waters. This cooperation can be carried out in many ways. Adopting regulations under international and European law with a scope covering the entire river basin is one important way. Only if all the riparian states have to conform to the same standards can good water quality be ensured. Otherwise the efforts of a downstream country can easily be undermined by lower standards upstream. Compliance with these standards could be improved if upstream states were also motivated to improve the water quality in the whole river basin, even downstream. Under European law such an incentive could perhaps be created by not giving the Member States an individual but a shared obligation to meet the targets of the WFD to reach the good status of surface waters by 2015. The shared responsibility could eliminate the risk that a Member State cannot comply with the directive because of transboundary pollution.

How strict regulations should be is a difficult question. Even though the integration principle in Article 6 of the EC Treaty requires the integration of environmental interests into EC law and its implementation, the protection of the environment is not the only objective of the Community. Similarly, in international law it is just as hard to balance the interests for economic development and social well-being with environmental protection. Sustainable development has to be the target, and to prevent industrial pollution degrading the environment and causing economic and social damage, as happened in Hungary, regulatory action is needed to keep economic development within bounds. Cooperation in adopting regulations has to be coupled with harmonised implementation measures. Both the Danube River Protection Convention and the WFD recognise that, and require harmonized action in the management of the river basin. The multi-level management scheme of the WFD is only

in its planning phase, therefore its outcomes cannot be evaluated yet, and one can only hope that it will succeed in helping riparian states to reach the targets of the directive.

Furthermore, cooperation on a sub-basin or even bilateral level is needed if the problem has a local character, such as in the case of the Rába. In case the problem only affects part of the river basin, it is not necessary to adopt regulations for all riparian states. However, it may be rather hard to decide whether a type of pollution threatens only a part of the basin. An example is that the EC did not adopt Community EQS for zinc, copper, chrome and arsenic, but the Danubian countries still decided to establish EQS for these substances to be applied in the Danube river basin. It is unlikely that these substances cause less pollution in other European river basins, but will always be a policy decision to draw the line between which substances to regulate at a European level and which not.

But cooperation in the river basin is not enough in itself. Pollution always happens, and it is necessary to ensure that in the end the polluter pays for the caused damage. As regards state responsibility, the options of Member States to choose a dispute settlement forum and obtain remedy is limited, due to Article 292 of the EC Treaty and it is unlikely that this situation will change. However, in case of industrial pollution the real polluter is usually not a state but the operator of the polluting factory, and therefore the claim for remedy is often directed to civil procedures. In international law there is no civil liability convention in force regulating the matter, and the European directives are hard to apply by a victim state as they are often ambiguous. It is necessary therefore to improve the existing regulations on civil liability to avoid ambiguity, and to include guarantees such as the requirement of mandatory insurance to avoid uncompensated damage due to the insolvency of the operator.

In conclusion, it can be noted that although the notion of sustainable development has become an important item in international and European law, and has been included in many applicable conventions, laws and regulations, a clear and unified system to provide protection against and remedy for pollution caused to a downstream state does not exist. A certain degree of protection is provided, but there is still place for improvement. In any event, cooperation will be the most important tool to prevent transboundary pollution as already recognised by the river basin approach.

## VII. LIST OF ABBREVIATIONS

|               |   |
|---------------|---|
| <b>AEWS</b>   | Accident Emergency Warning System                               |
| <b>BAT</b>    | Best Available Techniques                                       |
| <b>BREF</b>   | Best Available Techniques Reference Document                    |
| <b>DABLAS</b> | Danube Black Sea Task Force                                     |
| <b>DBMP</b>   | Danube Basin Management Plan                                    |
| <b>DRB</b>    | Danube Regional Project   |
| <b>DRBD</b>   | Danube River Basin District                                     |
| <b>EC</b>     | European Community  |
| <b>ECJ</b>    | European Court of Justice                                       |
| <b>EGTC</b>   | European Grouping for Territorial Cooperation                   |
| <b>EIA</b>    | Environmental Impact Assessment                                 |
| <b>EQS</b>    | Environmental Quality Standard                                  |
| <b>EU</b>     | European Union  |
| <b>ICJ</b>    | International Court of Justice                                  |
| <b>ICPDR</b>  | International Commission for the Protection of the Danube River |
| <b>ILC</b>    | International Law Commission                                    |
| <b>IPA</b>    | Instrument for Pre-Accession Assistance                         |
| <b>JAP</b>    | Joint Action Programme  |
| <b>JPM</b>    | Joint Programme of Measures                                     |
| <b>PCA</b>    | Permanent Court of Arbitration                                  |
| <b>PCIJ</b>   | Permanent Court of International Justice                        |
| <b>RBM EG</b> | River Basin Management Expert Group                             |
| <b>RBMP</b>   | River Basin Management Plan                                     |
| <b>SEA</b>    | Strategic Environmental Assessment                              |
| <b>TNMN</b>   | Trans-National Monitoring Network                               |
| <b>UN</b>     | United Nations  |
| <b>UNCLOS</b> | United Nations Convention on the Law of the Sea                 |
| <b>UNECE</b>  | United Nations Economic Commission for Europe                   |
| <b>WFD</b>    | Water Framework Directive (2000/60/EC)                          |



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ICJ case between Ecuador and Colombia concerning aerial herbicid spraying. The procedure was instituted by Ecuador 1 April 2008. More information: [www.icj-cij.org](http://www.icj-cij.org) > cases > contentious cases.

##### **Gabčíkovo-Nagymaros case (1997)**

Gabčíkovo-Nagymaros Project case (Hungary v. Slovakia) ICJ Judgement of 25 September 1997.

##### **Nuclear Weapons case (1996)**

Advisory Opinion on the Legality or Threat of Use of Nuclear Weapons ICJ. 226.

##### **Pulp Mill case (2006)**

ICJ case concerning pulp mills on the river Uruguay (Argentina v. Uruguay). Request for provisional measures, Order of 13 July 2006. Available at: [www.icj-cij.org](http://www.icj-cij.org) > cases > contentious cases.

#### **VIII.3.3. Case law of other tribunals**

##### **Lac Lanoux case (1957)**

Lac Lanoux Arbitration, 24, ILR.

##### **Rhine Chlorides Arbitration (2004)**

The Rhine Chlorides Arbitration Concerning the Auditing of Accounts (Netherlands-France).

##### **River Oder case (1929)**

Territorial Jurisdiction of the International Commission of the River Oder Judgment of 10 September 1929.

##### **Tisza case (2001)**

Case of the County Court of Budapest Hungarian State v. Transgold S.A. 4P.23.771/2001/137.

### **Trail Smelter case (1941)**

The Trail Smelter Arbitration (United States Canada).

## **VIII.4. Miscellaneous**

### **Baia Mare Task Force Report (2000)**

Report of the International TaskForce for Assessing the Baia Mare Accident, December 2000. Available at: [www.gpgtaskforce.org](http://www.gpgtaskforce.org).

### **Environment Committee Meeting 2-3 May 2007, No PE 386.518**

Meeting of the Environmental Committee of the European Parliament, 2-3 May 2007: Implementation of european environmental law. Available at: [www.europarl.europa.eu](http://www.europarl.europa.eu).

### **UNEP/OCHA Report**

United Nations Environment Programme (UNEP) /Office for the Co-ordination of Humanitarian Affairs (OCHA) Assessment Mission: Report on the spill of liquid and suspended waste at the aurul s.a. retreatment plant in baia mare, March 2000. Available at: [www.Reliefweb.int](http://www.Reliefweb.int).

### **Written question No P-4838/05**

Written question by Péter Olajos on the foaming of the River Rába, 14.12.2005. No: P-4838/05 Available at: [www.europarl.europa.eu](http://www.europarl.europa.eu).

### **Written question No P-3007/07**

Written question by Péter Olajos with the following subject: Are the Austrian tanneries which pollute the Rába gaining an unlawful competitive advantage?, 08.06.2007. Available at: [www.europarl.europa.eu](http://www.europarl.europa.eu).

## **VIII.5. Miscellaneous internet sites**

<http://eippcb.jrc.es>.

<http://treaties.un.org> > Status of Treaties > Environment > Convention on the Law of the Non-Navigational Uses of International Watercourses.

[www.delmagyar.hu](http://www.delmagyar.hu) > [www.delmagyar.hu](http://www.delmagyar.hu) > Belföld - Magyarország hírei > Még mindig sok szennyező anyag kerül a Rábába a bőrgyárakból.

[www.drinking-water.org](http://www.drinking-water.org) Introduction > Sources > Shared Resources.

[www.ec.europa.eu/environment/water](http://www.ec.europa.eu/environment/water).

[www.ec.europa.eu/environment/seveso/index.htm](http://www.ec.europa.eu/environment/seveso/index.htm).

[www.ec.europa.eu](http://www.ec.europa.eu) > Európai Bizottság > Magyarország > Sajtószoba > Sajtóközlemények > Ausztria–Magyarország határon átnyúló operatív program 2007–2013.

[www.europa.eu.int](http://www.europa.eu.int) > European Commission > Environment > Water > Water Framework Directive.

[www.europa.eu](http://www.europa.eu) The EU at a glance > The history of the European Union > 2000-today, A decade of further expansion.

[www.fsz.bme.hu/mtsz/szakmai/tvok05.htm](http://www.fsz.bme.hu/mtsz/szakmai/tvok05.htm).

[www.hegyigyula.hu](http://www.hegyigyula.hu) > Publications > Prevent an ecological catastrophe - Stop the cyanide gold mining investment in Romania! 20-09-2006.

[www.ipcdr.org](http://www.ipcdr.org) > About us > Contracting Parties.

[www.icpdr.org](http://www.icpdr.org) > Issues > River Basin Management.

[www.icpdr.org](http://www.icpdr.org) > Issues > Water quality > Accidental Pollution > AEWS.

[www.icpdr.org](http://www.icpdr.org) > Issues > Water quality > TNMN.

[www.icpdr.org](http://www.icpdr.org) > Projects and Programmes > DABLAS.

[www.iearn.hu/waters/kulso\\_oldalak/danube2.htm](http://www.iearn.hu/waters/kulso_oldalak/danube2.htm).

[www.infomine.com/countries/romania.asp](http://www.infomine.com/countries/romania.asp) > Romania at glance.

[www.kerekerdo.org](http://www.kerekerdo.org) > természetvédelem > A Rába-mente természeti értékei.

[www.kislexikon.hu](http://www.kislexikon.hu) > Rába.

[www.kvvm.hu](http://www.kvvm.hu) > Hírek > Elkészült a Rába vízminőségének első átfogó vizsgálata - Épül az új szűrőberendezés a Boxmark felbachi bőrgyárában. 30.09.2008.

[www.kvvm.hu](http://www.kvvm.hu) > vízügy > folyóinkkal való gazdálkodás.

Népszabadság online: Csődbe menekülhet a tiszai ciánszennyezés felelőse. 28.10.2005.  
Available in Hungarian at: [www.nol.hu/archivum/archiv-382308](http://www.nol.hu/archivum/archiv-382308).

[www.nfu.hu](http://www.nfu.hu) > Fejlesztési Programok > Európai Területi Együttműködés, IPA, ENPI 2007-2013.

[www.szentgotthard.hu](http://www.szentgotthard.hu) > Ehető a Rába hala.

[www.rosiamontana.org](http://www.rosiamontana.org).

[www.undp-drp.org/drp/project.html](http://www.undp-drp.org/drp/project.html).

[www.unece.org](http://www.unece.org) > Environmental Policy > Conventions > Water > Protocol on Water and Health.

[www.unece.org](http://www.unece.org) > Environmental Policy > Conventions > Water > Status of Ratifications.

[www.unece.org](http://www.unece.org) > Environmental Policy > Conventions > Industrial Accidents.

[www.unece.org](http://www.unece.org) > Environmental Policy > Conventions > Environmental Impact Assessment > Status of Ratifications.

[www.unece.org](http://www.unece.org) > Environmental Policy > Conventions > Public Participation.

[www.unesco.org/water/iyfw2/water\\_use.shtml](http://www.unesco.org/water/iyfw2/water_use.shtml).

[www.who.int](http://www.who.int) > Programmes and projects > Water Sanitation and Health (WSH) > industrial pollution.

[www.worldatlas.com/webimage/countrys/euriv.htm](http://www.worldatlas.com/webimage/countrys/euriv.htm).

## **VIII.6. Images**

### **Figure 1**

The major rivers of Hungary. Grid-Arendal, 1998.

### **Figure 2**

The route of the pollution. Retrieved from: REC Bulletin (2000), p.16.