

**INTERNATIONAL LAW**  
**AND**  
**THE BAIA MARE CYANIDE SPILL**

# **INTERNATIONAL LAW AND THE BAIA MARE CYANIDE SPILL**

Final Report

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Regional Environmental Center for Central and Eastern Europe,  
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## Executive Summary

Mining gold with the use of cyanide has always been an inherently dangerous activity requiring strict regulatory oversight and the application of appropriate technology to prevent environmental harm. The cyanide spill from the Aurul S.A. gold mining operation in Baia Mare, Romania was a warning to the international community that legal and institutional regimes that should prevent and respond to such accidents may as yet be not fully developed, especially in countries in transition. Particularly, the international legal regimes for industrial accident prevention, liability, and foreign direct investment must be considered as a whole in order to identify gaps and weaknesses in the system that should be addressed in the effort to protect human health and the environment from such accidents. Additionally, the gap between legal requirements and commitment to and capacity for implementation, especially in transition countries, must be addressed.

This report addresses the need to bring attention to the international legal implications of the Baia Mare accident. First, the report sets the stage by briefly identifying the positive responses that the accident has evoked from Romanian and international stakeholders, indicating that steps have already been taken to strengthen the institutional and legal framework governing mining operations. Then the international legal obligations of Romania at the time of the accident are examined, followed by the identification of international conventions to which Romania was not party at the time of the accident and that could have helped prevent the accident. Gaps in the international legal regimes relevant to the accident are also identified and recommendations are made for filling them. Recommendations are also made for addressing the issue of implementation.

The accident at Baia Mare has resulted in a number of positive responses both domestically in Romania as well as regionally and at a broader European level, and it is incumbent upon stakeholders to continue to expand the scope of social learning that the accident has made available. Among the positive responses to the accident in Romania are the following:

- cooperation and more openness between local/regional officials and environmental NGOs in the Baia Mare region
- public awareness campaigns by NGOs
- a crisis cell formed by NGOs that can respond to future accidents
- government investigations of the incident with a view to improved practices.

Key positive responses at the regional and European levels have included:

- Joint Hungary-Romania project for contingency planning on the Szamos River.
- Project to improve the Accident Emergency Warning System.
- Project to register and perform risk analyses of potentially hazardous sites in the Tisza River watershed in the border region of Hungary, Romania, and Ukraine.
- Intensive public relations and EU-level lobbying to bring attention to and improve mine safety by the World Wide Fund for Nature.
- European Commission proposal to amend the Seveso II Directive on industrial accident prevention to cover mining operations.

Romania was not party to several key international conventions that could conceivably, if implemented, have prevented or minimized the effects of the accident at Baia Mare or provided more effective long-term response. It is not too late to effectively implement these key conventions in order to help prevent similar accidents in the future. Important conventions to which Romania was not party at the time of the accident are listed below. Conventions Romania has since become party to are marked with an asterisk.

- Convention on the Transboundary Effects of Industrial Accidents

- International Labor Organization Prevention of Major Industrial Accidents Convention
- Convention on Environmental Impact Assessment in a Transboundary Context\*
- Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters\*
- Convention on the Law of the Non-navigational Uses of International Watercourses

In addition to international legal instruments to which Romania was not party, there are also European Union directives that Romania has not yet transposed into domestic law. As a country seeking to join the European Union, transposition of EU legislation is a high priority for Romania. Precedence should be given to the Seveso II Directive which seeks to prevent industrial accidents, and the directive on integrated pollution prevention and control, requiring the use of the best available technology to prevent discharges.

Romania, like other countries in transition, must not only adopt Western and international legal instruments but commit and learn to implement them. At present, there is a significant gap between legal requirements and implementation capacity in countries in transition, especially the less developed transition countries like Romania. Countries like Romania have now entered a period where equal focus should be placed on increasing the capacity as well as the institutional will to implement laws and policies as on updating the laws of the land and harmonising them with international and European standards and requirements. To comply with international agreements, countries in transition must adequately staff enforcement authorities and empower them to perform their tasks with the full authority of the state behind them. Inter-ministerial and inter-agency co-ordination, both vertical and horizontal, must also be improved. This might require, among other things, creating permanent inter-ministerial and inter-agency committees as well as project oriented task forces that tackle discrete issues. Finally, stakeholders, including non-governmental organisations and citizens, must have access to justice in cases of non-compliance.

Gaps and weaknesses in international law fall into three main categories: industrial accident prevention, liability for environmental harm, and foreign direct investment.

### *Accident prevention*

The international regime for industrial accident prevention is the most developed of the three, encompassing two international conventions. In addition, European Union law is applicable or potentially applicable to this case. Within the accident prevention regime it is weaknesses rather than major gaps that must be addressed.

The most important accident prevention convention is the UNECE Convention on the Transboundary Effects of Industrial Accidents. However, this convention is in important respects significantly less stringent than the ILO Prevention of Major Industrial Accidents Convention. Strengthening the international legal regime for prevention of industrial accidents could include negotiating a protocol to the TEIA that would incorporate elements of the ILO convention, including the mandatory use of best available technology and risk assessment. The Seveso II Directive of the European Union implements the TEIA convention and goes significantly beyond the convention in developing a framework for accident prevention. The Seveso II Directive should also serve as a model for any protocol developed under the TEIA convention.

### *Liability for environmental harm*

The development of a clear liability regime is essential for both deterrent and compensatory purposes. The international regime for liability for environmental harm is in an early stage of development and is suffering from a lack of consensus in the international community. The international convention that should be the centerpiece of a liability regime has not come into force and is not likely to. However, work is continuing on the development of other liability instruments.

A major gap in international law is the absence of a functioning convention on liability for environmental harm. While there is currently pressure to develop a workable liability treaty, the international community has yet to come to a consensus on terms of such a treaty. The Lugano Convention, which was to have dealt with the issue of liability for environmental harms, has not and will not come into force because of strong disagreements among nations as to the adequacy of the convention as drafted. A new liability instrument for environmental harm should meet the following criteria:

- The types of damages covered should be clear and unambiguous.
- The types of activities covered should be clear and unambiguous.
- The treaty should be clear about what standard of liability applies to each activity.
- The treaty should have specific rules for transboundary harm.
- The treaty should have a complete system of financial guarantees.

### *Environmentally responsible investment*

The international environmental regime for foreign direct investment is at an extremely early stage of development, with no binding instruments having been developed or proposed. The main instrument in this area is a set of guidelines developed by the OECD for multinational corporations investing abroad. These guidelines are a solid start in the development of an investment regime that steers investors towards socially and environmentally responsible behavior; however a great deal more work will be required before investment behavior is significantly affected. This report contributes to this discussion by submitting an environmental code for foreign direct investment in potentially dangerous industrial activities, which can be found attached as Appendix A.

The absence of binding guidelines for foreign investors in potentially environmentally harmful activities should not be understood to mean that investor behavior cannot be shaped by non-legally binding instruments. The OECD guidelines for multinational corporations should serve as a basis on which to further develop voluntary instruments. Their implementation would be more likely within the framework of a stricter accident prevention regime and a functioning liability regime.

### *Main findings and conclusions*

Within this overall framework the authors of this report came to the following conclusions and recommendations:

The international regimes for accident prevention, use of international watercourses, liability for environmental harms, and investor responsibility work synergistically to reduce the likelihood of major accidents such as the one that occurred in Baia Mare. At the moment, only the regime for use of international watercourses is well developed and functioning at the legal level. All other regimes suffer from weaknesses or major gaps. We recommend the following actions to address these weaknesses and gaps.

#### Accident prevention regime:

- All countries in transition should become parties to the Convention on Transboundary Effects of Industrial Accidents;
- All EU accession countries should place a high priority on transposing the Seveso II and integrated pollution prevention and control directives as soon as possible;
- The Seveso II directive and the International Labour Organisation Prevention of Major Industrial Accidents Convention should serve as the basis for the development of a protocol to the Convention on Transboundary Effects of Industrial Accidents.

#### Liability regime:

- The issue of liability for environmental harms should be raised at the inter-ministerial level, most importantly at the next Environment for Europe conference; to this end, the negotiation of the joint protocol on liability under the Accidents and Watercourses Conventions should be given high priority;
- Regional actors should develop a common regional strategy for liability that roughly follows recent EU initiatives on liability;
- Transition countries should take an active part in international efforts to revive the political commitment to forge an acceptable comprehensive multilateral treaty on liability for environmental harm, far beyond the current Joint Protocol on Liability initiative;
- New liability instruments should provide certainty as to the types of damage covered, the types of activities covered, the standard of liability applied to each activity, specific rules for transboundary harm, and a complete system of financial guarantees.

#### Environmentally responsible investment:

- Review existing voluntary industry codes for investment and environmental responsibility;
- Review the OECD guidelines for investors;
- Identify gaps and deficiencies;
- Develop a comprehensive voluntary code for foreign direct investors that covers environmental responsibilities.

Finally, countries in transition have significant difficulties implementing international legal instruments that they have become party to, even when intentions are good. Strengthening the regulatory and financial capacities of countries in transition is a long-term process for which patience and perseverance are required. In the meantime, several steps can be taken to enhance the implementation capacity of countries in transition regarding environmental policies in general, and policies and laws regarding accident prevention in particular. These include the following:

- Create implementation strategies at the national level for various sub-areas of the environmental sector;
- Establish partnerships between governmental authorities and NGOs and citizens to establish projects that NGOs and citizens can carry out to aid in implementation of environmental laws;
- Promote governmental and NGO/citizen collaboration to define implementation priorities, thus benefiting from a broad range of perspectives and knowledge;
- Provide access to justice for NGOs and citizens, understanding that action by the courts against the government can often be in the government's larger interest.

# **International Law and the Baia Mare Cyanide Spill**

Final Report

Regional Environmental Center for Central and Eastern Europe

Szentendre, Hungary

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## **I Introduction**

### *Purpose and Methodology*

The cyanide spill in Baia Mare, Romania from the Aurul S.A. gold mining operation in January 2000 has wide-ranging international legal implications, and has brought to light both strengths and weaknesses of the international legal regimes governing industrial accidents, liability for environmental harm, and foreign direct investment as it affects the environment. This report addresses the legal issues involved in the Baia Mare spill by examining the international legal obligations of Romania at the time of the accident, laying out the relevant international legal instruments relevant or potentially relevant to this case, identifying the gaps in international law that could either have helped prevent the accident or mitigated its effects and redressed its harm, and recommending appropriate action at the international level to address these gaps. Additionally, the report briefly reviews key social and institutional responses to the accident. Due to the ongoing legal dispute between the government of Hungary and Aurul S. A. gold mining operation, this report focuses more on the international legal aspects and the prospects for improved international cooperation in the future, rather than seeking to assign culpability and responsibility for the accident.

Begun shortly after the accident occurred, the research for this report has progressed in two phases and produced several outcomes. Initial research conducted at the Regional Environmental Center for Central and Eastern Europe was aimed at identifying the legal

implications of the accident, documenting the course of events during and shortly following the accident, and estimating the ecological and social consequences. Data and information gleaned from the research on the spill itself and the international legal consequences thereof were submitted to the International Task Force for the Assessment of the Baia Mare Accident<sup>1</sup> (Baia Mare Task Force) and integrated into its report, issued in December, 2000.<sup>2</sup> The present report complements the Baia Mare Task Force Report as well as other key documents analysing the accident and its aftermath.<sup>3</sup> Consequently, the report summarises the research conducted on the technical elements of the spill and its ecological and social effects, and refers the reader to the documents cited above for fuller accounts.

### *Overview of the Accident*

Aurul S.A., an Australian-Romanian joint venture,<sup>4</sup> extracts non-ferrous metals from the waste rock piles of mines in the Baia Mare area. The company uses a cyanide heap leaching method, a process that involves grinding refuse ore and extracting gold with cyanide. The process of extraction requires large amounts of water. Consequently, after storage the cyanide bearing water is recycled back into the process. This technology is applied on large, exposed piles of waste rock.

The Aurul tailings management facility (TMF) was based on closed circuit systems designed specifically to avoid the need of discharging effluents into local rivers and streams. All the process waters were re-circulated back to the processing plant for re-use. While in principle this was a worthy objective both in environmental and economic terms, the design in any case contained no provision for the *emergency* discharge of excess waters under overflow conditions. Without a specific provision for avoiding overflows, such 'zero-discharge' systems are not for use in areas where heavy and intense rains are common and predictable, such as those prevailing in this part of Romania. The result of using this technology at the mine was that during severe weather conditions the additional volume of rain and melting

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<sup>1</sup> The Task Force was established by the governments of Hungary and Romania, the European Commission, and the United Nations.

<sup>2</sup> Report of the International Task Force for Assessing the Baia Mare Accident, Brussels, December 2000 (report available at [http://europa.eu.int/comm/environment/enlarg/bmtf\\_report.pdf](http://europa.eu.int/comm/environment/enlarg/bmtf_report.pdf)).

<sup>3</sup> See especially UN Environment Program, "Cyanide Spill at Baia Mare, Romania", Geneva, March 2000, (report available at [www.unep.ch/roe/baiamare.htm](http://www.unep.ch/roe/baiamare.htm)) and Klochko, Kateryna, "Environmental Aspects of Ore Mining Operations in Central and Eastern Europe: Precious Metals and the Case of Gold Mining in Baia Mare, Romania," M.Sc. Thesis, Central European University, Budapest, July 2000.

<sup>4</sup> With at least 50% being owned by the Australian Esmeralda Exploration, about 46 % owned by the Romanian government, and the remainder by private individuals. Dresdner Kleinwort Benson, the investment arm of the Dresdner Bank, invested USD 8.5 million in Aurul as part of a USD 28.2 million gold extraction project in Baia Mare.

snow could not be contained within the ponds, causing them to overflow.<sup>5</sup> Additionally, the dam also had other construction flaws.<sup>6</sup> From an institutional perspective, the key lapses included an environmental impact assessment that did not consider the possibility of severe weather conditions, lack of understanding of how the dam technology would operate under the local conditions, lack of centralised and clear responsibility for the permitting process, and an inadequate monitoring program.<sup>7</sup>

The accident occurred around 10:00 p.m. on 30 January 2000, when over 100,000 cubic meters of wastewater with high concentrations of cyanide and heavy metals spilled into the Sasar and Lapus water courses from the Aurul plant.<sup>8</sup> Following heavy rains and thawing snow in Baia Mare, the tailings pond at the mines flowed over the dam built to contain them, leading to the catastrophic spill. Although the dam was rebuilt the following day, the remedial action could not prevent the contamination from affecting a wide section of the Tisa/Tisza River Basin in Romania, Hungary, and Yugoslavia.

The pollution initially traveled 1.2 km to the Lapus River, a tributary of the larger Somes/Szamos River. The Upper-Tisza Region Environmental Inspectorate in Hungary received the first official written information from Romanian authorities at 6:20 p.m. on 31 January 2000. Romanian officials indicated that the concentration of cyanide was 19.16 mg/l in the Lapus. The General Manager of the Romanian Environment Ministry reported that cyanide levels 700 times above normal had been recorded in nearby river water after the spill.<sup>9</sup> As the waste water travelled through Romania, the peak cyanide level was recorded at 30.4 mg/l.<sup>10</sup> The average contaminant concentration during the 6 hours it took to cross into Hungary was 18 mg/l.<sup>11</sup>

The pollution then travelled from the Hungarian stretch of the Somes/Szamos to the Tisa/Tisza River, Hungary's second largest waterway. By this time, the peak concentration of cyanide entering the Tisa/Tisza had decreased to 12.5 mg/l. Due to extreme weather

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<sup>5</sup> Report of the International Task Force for Assessing the Baia Mare Accident, December 2000. p.8.

<sup>6</sup> Ibid., p. 10.

<sup>7</sup> Ibid.

<sup>8</sup> Facts were gathered largely from the following sources: 1. *Preliminary Evaluation of the Cyanide Pollution in the Rivers Szamos and Tisza*, Ministry for Environment of the Republic of Hungary, February 2000,

<http://www.zpok.hu/~jfeiler/baiamare/docs/komreports/cyanide.html>; 2. *Romania - Tailings Spills: Cyanide Spill at Baia Mare, Romania UNEP/OCHA Assessment Mission*, <http://www.natural-resources.org/environment/BaiaMare/mission.htm>; 3. *The Baia Mare Accident*, <http://www.zpok.hu/~jfeiler/baiamare/accidentdescription.html>.

<sup>9</sup> Romania, Hungary, and the Federal Republic of Yugoslavia were performing sampling and analysis using independent laboratories and following international or Hungarian standards.

<sup>10</sup> 300 times the threshold of the Hungarian 'highly polluted' standard. In Hungary, surface water quality is classified in a five-category evaluation system. Any water containing cyanide with a concentration value exceeding 0.100 mg/l is classified as heavily polluted.

conditions in Hungary, namely ice on the rivers and low water levels, the dilution of the cyanide was not as quick as it might otherwise have been. The flow of cyanide pollution through Hungary lasted approximately 12 days. From Hungary, the pollution flowed into the Yugoslav stretch of the Tisa/Tisza and then into the Danube north of Belgrade.

### *Technical Responses in the Aftermath of the Accident*

Among the most important positive lessons of the accident is the fact that the early warning system put into place under the evolving multilateral regime for managing the water resources of the Danube River Basin largely worked to warn downstream nations of the accident. Nevertheless, circumstances show that some improvements in the system might be warranted. The Accident Emergency Warning System (AEWS) began to operate in 1997 as a part of the Transnational Monitoring Network in the Danube River Basin (TNMN), a broader set of institutions designed to monitor water quality in the basin. The TNMN was launched by the Environmental Programme for the Danube River Basin and meets the requirements for water quality monitoring, information sharing, and establishing an emergency warning system under the Convention on Co-operation for the Protection and Sustainable Use of the Danube River and the Convention on the Protection and Use of Transboundary Watercourses and International Lakes, discussed below. The AEWS relies on Principle International Alert Centres (PIACs) in all participating countries<sup>12</sup> to assimilate and transmit information on accidental pollution likely to have transboundary effects to neighbouring states.

Within a half-hour of the spill Aurul S.A. informed the local Environmental Protection Agency in Baia Mare of what had happened, and ceased all activities within another half-hour. However, it took a full ten additional hours for the local EPA to inform the local water authority, and six and a half hours more until the Hungarian water authority received a phone call warning it of the toxic plume headed toward Hungary (15:00 on January 31). Moreover, the first official warning from the Romanian PIAC to its Hungarian counterpart came in the night of January 31 at 20:54, over a day after the accident and almost eight hours after the Hungarian water authority was warned by phone outside of the PIAC system. Moreover, the warning by the Romanian PIAC was sent by fax rather than satellite transmission because the satellite transmission system was disabled.

Aside from the initial underestimation of the consequences of the spill by the Romanian side, the official response to the accident must be considered a success. The relatively timely information exchange and measures taken by the Romanian, Hungarian, and

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<sup>11</sup> 180 times the threshold value.

<sup>12</sup> Currently, all Danubian countries with the exception of Yugoslavia

Yugoslavian authorities, including a temporary closing of the Tisza Lake dam,<sup>13</sup> mitigated and reduced the risk and impact of the spill. The Tisza Lake dam was temporarily closed before the cyanide plume reached the lake. The closure of the dam allowed the cyanide to be diluted before traveling further down the river, and its sudden release increased the rate of flow through sensitive areas. Thus, the temporary closure of the dam mitigated the impact and reduced the risk of the spill.

### *Effects of the Accident*

In spite of the post-accident measures taken by the authorities, the acute transboundary pollution had severe negative impacts on biodiversity, the rivers' ecosystems, drinking water supply, and socio-economic conditions of the local population, and continue to disrupt the aquatic ecosystem of the affected areas. Sixty-two species of fish are found in the Tisa/Tisza River, including 20 endangered or protected species. Fish are approximately one thousand times more sensitive to cyanide than humans,<sup>14</sup> and thus, serve as important indicators for the health of waters. Carp, catfish, and pike are among the species of fish present in the Tisa/Tisza, all of which are used for human consumption.<sup>15</sup>

Phytoplankton and zooplankton were wiped out when the plume passed, and fish were killed in the plume or immediately after. Estimates of the total amount of fish killed are in excess of one hundred thousand tons. Along with fish populations, an estimated 300 to 400 otters have died as a result of the pollution,<sup>16</sup> probably from eating contaminated fish. A rare white tailed eagle was also killed by the cyanide and heavy metal pollution.

Chronic effects due to the presence of heavy metals, especially in the sediment, have the potential to influence the aquatic ecosystem.<sup>17</sup> There is potential for bioaccumulation in fish from both the cyanide and heavy metal pollution, and there is also expected to be long-term damage to agriculture due to the presence of heavy metals in the water and soil, and

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<sup>13</sup> Water was retained at the maximum capacity of the dams at Tisza Lake in order to wait for the cyanide plume. As a result, dilution was increased before the toxins continued downstream.

<sup>14</sup> Dose levels as low as 0.03 mg/l can be ultimately fatal to sensitive species. Levels less than lethal provoke physiological and pathological responses that reduce swimming ability, interfere with reproductive capacity, can lead to deformed offspring and leave fish more vulnerable to predators.

<sup>15</sup> See Carl Kovac, *Tisza Dead for Years to Come?*, Mineral Policy Institute, February 24, 2000, [http://www.mpi.org.au/features/esm\\_metals.html](http://www.mpi.org.au/features/esm_metals.html).

<sup>16</sup> See *Cyanide Spill Kills Key European Otters*, Environment News Service, 28 February 2000, <http://ens.lycos.com/ens/feb2000/2000L-02-28-03.html>.

<sup>17</sup> All existing heavy metal contamination exceeds quality criteria levels used in many other countries.

eventually in contaminated produce.<sup>18</sup> Human health and income may be endangered due to chronic effects of the pollution.

The cyanide and heavy metal pollution also contaminated drinking water. Because the upper part of the Tisa/Tisza was contaminated with cyanide concentrations up to 100 times the limit value for drinking water, villages close to the accident site were provided with alternative water sources. The area of Szolnok, midway between Hungary's northern and southern borders, was most heavily affected by the cyanide pollution. Within Szolnok and neighboring towns, the only source of drinking water is the Tisza River. Although cyanide concentrations had dropped to 2.85 mg/l by the time the cyanide plume passed, the municipal water supply in Szolnok was endangered.<sup>19</sup> The public was supplied with drinking water from public artesian wells. Withdrawal of water from the Tisza was suspended on 9 February for 11 hours. The pollution also affected the protected area of Lake Tisza, which is an important part of the Hortobágy National Park in Hungary.<sup>20</sup>

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<sup>18</sup> Personal interview with Edit Pop of ASSOC located in Baia Mare, 16 August 2000.

<sup>19</sup> Water works officials declared that they can provide drinking water of appropriate quality from the Tisza only at a cyanide concentration of 0.8 - 1.0 mg/l.

<sup>20</sup> The park recently became part of the World Heritage as well as a Ramsar site, falling under the scope of the Ramsar Convention and biosphere reserves that are parts of the MAB programme of UNESCO.

### *Subsequent spills*

In the weeks and months following the Baia Mare incident a number of other spills were reported throughout Europe: 10,000 tons of lead residue spilled into the Vaser and Viseu Rivers on 27 March 2000, at a facility in Baia Borsa, Romania also operated by the Aurul mining works; a mining dam collapse near Gallivare, Sweden in September 2000 released a million cubic meters of copper contaminated water into the Vassara River; on 8 November 2000 a cyanide leak occurred at a Georgian-Australian gold mining joint venture in Madneuli, but its migration was stopped before reaching a nearby river; in northeastern Romania, a tributary of the Siret River was contaminated by a cyanide spill from an industrial facility on 19 January 2001; copper waste spilled from an ore processing plant in Bulgaria killed fish in the Topolnitsa River just four days later.

The frequency and severity of industrial accidents in recent years has significantly raised the awareness of the international community to this persistent threat and lessons are being learned. The international community is, among other things, reinvigorating the effort to develop an instrument addressing liability for environmental harms, promoting activities under the Convention on the Transboundary Effects of Industrial Accidents, and promoting bilateral and multilateral agreements on industrial accidents in specific regions. Also, the European Union has taken steps to strengthen its keystone accident prevention law, commonly referred to as the Seveso II Directive.

## **II Institutional Responses to the Accident**

The Baia Mare accident drew a great deal of regional and international attention, and has led to a number of legal and institutional responses both in the affected region and in Europe as a whole. Some of these responses are limited to Romania alone, and have to do mainly with capacity building activities by NGOs and governmental agencies. There have also been regional-level NGO projects as well as responses by NGOs in other parts of Europe and the United States. Also, the accident has drawn attention to the gaps in legal instruments and in their implementation that could prevent similar accidents in the future.

### *Activities within and between the Affected Countries*

To date, there has been no comprehensive reform of legislation in Romania in response to the accident. However, there have been other institutional responses that are strengthening the capacity of the Romanian environmental policy system to prevent and deal

with such accidents in the future, as well as improve the response to this accident. Specific activities have included a project ("Local Resources for Community Problems") in the Baia Mare region in which local authorities work with a local environmental NGO and communities to develop projects that address local environmental concerns. Also, the Romanian Environmental Protection Agency (Inspectoratul de Protectia Mediului) has instituted a new program through which it consults with environmental NGOs on the Local Plan for Environmental Actions, which has the potential to address safety and risk issues.

Other activities include projects by NGOs and governmental organisations, such as:

- [Romanian criminal, civil, administrative actions taken against the polluter]
- a public awareness campaign by the local Romanian NGO ASSOC;
- soil sampling of farmland conducted by ASSOC, finding only 14 out of 84 parcels have soil safe enough in which to grow crops.
- a Crisis Cell founded by the Romanian Environmental Partnership Foundation, including Ecotur Sibiu, Focus Eco Center, and Club Cicloturism Napoca, so that in emergency situations the cell can coordinate to take samples/measurements, inform the public, inform the mass media, and otherwise publicise the situation;
- establishment of Hungarian NGOs Tisza Platform and Tisza Club.
- joint Hungary-Romania project for contingency planning for the Szamos River;
- creation of the Tisza/Samos Governmental Commission by the Hungarian government to co-ordinate work in the following areas: damage assessment, mitigation, monitoring, revitalisation, harm prevention, compensation-liability, international aid, and aid to fishermen.
- establishment of not-for-profit company by the Hungarian government to aid fishermen affected by the spill;
- Hungarian-led effort to establish a joint monitoring system with Romania, Slovakia, and Ukraine;
- multi-party initiative to register and perform risk analyses of potentially hazardous industrial operations in the watershed of the Tisza River in the border region of Hungary, Romania, and Ukraine;
- finally, after efforts to negotiate a settlement over compensation for damages failed, the Government of Hungary filed a civil court case in a Budapest court against Aurul S. A. and other defendants.

### *Broader International Responses*

International responses to the accident have been well considered and appropriate. The first responses to the accident were mainly in the form of commissions and research teams created to discover the causes of the accident and recommend mitigating actions. These included the Baia Mare Task Force<sup>21</sup>, a UN Environment Programme/UN Office for the Coordination of Humanitarian Affairs team<sup>22</sup>, as well as researchers working for NGOs such as Greenpeace<sup>23</sup> and the US-based Mineral Policy Center<sup>24</sup>. Some of the key international activities in response to the accident have included:

- A proposal by the European Commission to amend the Seveso II Directive on industrial accident prevention to cover mining operations such as the one at Baia Mare, previously excluded.
- Intensive public relations and lobbying (at EU level) campaigns by the World Wide Fund for Nature.
- PHARE funded project to improve the Accident Emergency Warning System.

In general, the Baia Mare accident has received a substantial amount of attention by policy makers and NGOs at the regional and international levels, and has contributed to the process of reforming the accident prevention regime in Europe. Increased oversight by NGOs and a strengthening of the Seveso II Directive provide clear evidence that industrial safety is on the increase. However, it is not yet clear whether Romania itself has the political will and the financial and organisational capacity to significantly reduce the chances of industrial accidents occurring within its jurisdiction. Both further research and co-operation between Romanian authorities and international actors should be encouraged.

The international responses to the Baia Mare accident reflect a broader interest in and concern for the mining sector among international actors in recent years, including among some of the mining companies themselves. For instance, The Mining, Minerals and Sustainable Development Project of the International Institute for Environment and Development in the UK has begun the task of conducting an analysis of how the mining sector could make the transition to sustainability. The MMSD project is an outgrowth of the Global Mining Initiative, composed of the largest mining companies in the world, which

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<sup>21</sup> Baia Mare Task Force, Report of the International Task Force for Assessing the Baia Mare Accident, Brussels, December 2000

<sup>22</sup> UNEP/OCHA Assessment Mission, Cyanide Spill at Baia Mare, Romania, Geneva, March 2000.

<sup>23</sup> Greenpeace, The Real Face of the Kangaroo: A Fact-Finding Tour to the Aurul, S.A. Gold Mining Enterprise in Baia Mare, Romania and along the Lapus-Comes-Tisza River System in Romania and Hungary, Amsterdam, March 2000.

<sup>24</sup> Moran, Robert, More Cyanide Uncertainties: Lessons from the Baia Mare, Romania, Spill--Water Quality and Politics, Mineral Policy Center, Washington, DC, 2001.

sought to begin an exploration of mining's role in sustainable development. Among the key axioms of the MMSD project is that a global governance structure for the mining sector may be necessary to establish minimum standards and harmonisation of environmental quality outcomes. We strongly endorse this perspective and seek in this report to provide analysis that can aid in the development of the legal structure for one aspect of the mining sector at the international level, accident prevention and mitigation.

### **III Key Principles of International Environmental Law Relating to the Accident**

International legal principles relating to the Baia Mare accident fall roughly into five categories: general principles of environmental law, principles relating to prevention and response to industrial accidents, principles of managing and using international watercourses, principles of liability for environmental harm, and principles for environmentally responsible investment. Key principles of international law are reflected in multilateral conventions and other international legal instruments. In addition, European Community law is of particular significance in this case because the most directly affected countries of the Baia Mare spill, Romania and Hungary, are both applicant countries to the European Union. While EC law is supranational rather than international, for ease and efficiency it is discussed herein in the context of international law except where otherwise necessary.

#### *General Principles*

The Declaration of Principles of the United Nations Conference on Environment and Development (1992 Rio Summit, or Earth Summit) reiterated the key principle relating to resource development and its relation to international responsibilities articulated twenty years earlier at the United Nations Conference on the Human Environment in Stockholm. Principle 2 of the Rio Summit states that,

States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own natural resources pursuant to their own environmental and development policies, and the responsibility 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.

The principle against causing transboundary environmental harm has also become a rule of customary international law.<sup>25</sup> The strict nature of this principle lets it serve as an ideal towards which international environmental legal regimes should strive as well as a tool with which to counter national policies that flagrantly and knowingly flout it.

#### *Principles Relating to Prevention and Response to Industrial Accidents*

As articulated in the Convention on the Transboundary Effects of Industrial Accidents, the first principle of accident prevention in international environmental law is that states have an obligation to take appropriate steps to reduce risks, including working with operators.

[States] shall take appropriate measure for the prevention of industrial accidents, including measures to induce action by operators to reduce the risk of industrial accidents. (CTEIA, Art. 6 (1)).

It is now universally accepted that any national environmental policy, including one having to do with industrial accident prevention, must include environmental impact assessment. Environmental impact assessment, when performed according to international standards, can aid in the prevention of accidents by leading to improved design as well as measures taken for risk minimisation and accident response.

A secondary principle under the appropriate measures principle stipulates that states must require operators to provide information on their activities in order to demonstrate safe operation. In other words, operators must fully understand how their activities and technologies relate to accident risk and also develop internal monitoring and reporting units with good contacts to local and/or national environmental authorities that can help their operations keep within the legal and regulatory framework and troubleshoot areas of concern before they become serious problems.

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<sup>25</sup> See Astrid Boos-Hersberger, *Transboundary Water Pollution and State Responsibility: The Sandoz Spill*, 4 ANN. SURV. INT'L & COMP. L. 103, 111-113 (1997); Franz Xaver Perez, *The Relationship Between "Permanent Sovereignty" and the Obligation not to Cause Transboundary Environmental Damage*, 26 ENVTL. L. 1187, 1202-1203 (1996) [cited in Phillippe Sands, *Principles of International Environmental Law* 186, 190, 194 (1995)]; Rudiger Wolfrum, *Purposes and Principles of International Environmental Law*, 33 GER. Y.B. INT'L L. 308, 309 (1990).

A more comprehensive principle on accident prevention is articulated in the International Labour Organisation Prevention of Major Industrial Accidents Convention of 1993. This convention establishes the principle that accident prevention requires a coherent national-level policy developed according to collaborative and inclusive criteria.

In light of national laws and regulations, conditions and practices, and in consultation with the more representative organisations of employers and workers and with other interested parties who may be affected, each [state]... [s]hall formulate, implement and periodically review a coherent national policy concerning the protection of workers, the public and the environment against the risk of major accidents. (Art. 4 (1))

The ILO convention also establishes the principle that "where practicable", the national policy should "promote the use of the best available safety technologies." (Art. 4 (2)). Though the convention does not offer a definition of best available technology, this standard is commonly defined to mean the cleanest technology available on the market at the time of installation. However, the caveat that BAT should be used and promoted "where practicable" seems to leave a loophole for states to argue that certain technologies are too expensive, regardless of the benefits.

To summarise, the key principles of international law for accident prevention fall into three categories: 1. Policy development, including the integration of environmental concerns in design and management of facilities, 2. stakeholder collaboration, and 3. promoting the use of best available technology.

Principles for response to industrial accidents with transboundary effects fall into three areas: emergency preparedness, notification, and information dissemination. Principles falling into these areas are reflected in many international conventions relevant to the Baia Mare accident, including the Convention on the Transboundary Effects of Industrial Accidents, the International Labour Organisation Prevention of Major Industrial Accidents Convention, the Convention on the Protection and Use of Transboundary Watercourses and International Lakes, and the Convention on the Co-operation for the Protection and Sustainable Use of the Danube River.

Article 8 of the Convention on the Transboundary Effects of Industrial Accidents provides that

[States] shall take appropriate measures to establish and maintain adequate emergency preparedness to respond to industrial accidents.

Appropriate measures are usually defined to include on and off-site contingency planning. Parties to the CTEIA have tended to operationalise preparedness through the development of accident warning systems that allow affected parties and populations the maximum amount of time possible to react to accidents. Preparedness also usually involves the training and position of civil defence forces that could be put into service to evacuate or otherwise assist affected populations. In some countries permanent civil defence committees in communities or sub-regions across the country play the co-ordinating function for national responses to industrial accidents.

Of all the principles related to accident prevention and response, those associated with notifying affected states have been most successfully translated into specific international legal provisions and policy at the national level across the Danube River Basin. The notification system in the Danube watershed is a part of the Transnational Monitoring Network in the Danube River Basin, which includes an accident warning and notification system discussed in greater detail below.

The responsibility to notify affected states is found in the Rio Declaration as Principle 18:

States shall immediately notify other States of any natural disasters or other emergencies that are likely to produce sudden harmful effects on the environment of those States. Every effort shall be made by the international community to help States so afflicted.

The Convention on the Transboundary Effects of Industrial Accidents translates this principle into the more practical mandate that States must design accident notification systems. This operationalisation of the principle of notification has been further elaborated in the Danube River Convention, where states are obligated to create a regional water quality monitoring and emergency warning system for the Danube River. The Accident Emergency Warning System that operates across Danube region, and that functioned reasonably well to alert downstream countries of the Baia Mare accident, is a primary example of the kind of institutional network required under the principle of notification. Such integrated systems meet the requirements of the principle elaborated in the Rio Declaration.

Another key principle is that the public has a right to timely and adequate information on industrial accidents, and, where appropriate, to be invited to participate in follow-up actions. Principle 10 of the Rio Declaration states that

Environmental issues are best handled with the participation of all concerned citizens, at the relevant level.... [E]ach individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities ....

Conventions discussed in this report combine the principle of access to information with the principle of the right to participate in prevention of and response to industrial accidents. The Convention on the Transboundary Effects of Industrial Accidents targets the relevant public as those people living "in the areas capable of being affected by an industrial accident" (Art. 9). The same convention also establishes the principle that persons affected by transboundary pollution from an industrial accident have some right to access to justice:

[A]ccess to, and treatment in the relevant administrative and judicial proceedings, including the possibilities of starting a legal action and appealing a decision affecting their rights, equivalent to those available to persons within their own jurisdiction. (Art. 9 (3))

#### *Principles Relating to the Management and Use of International Watercourses*

Principles for the use and management of transboundary waters fall under four general categories: equity, reasonable use, conservation, and co-operation. All of the principles seek to maintain a balance of rights and responsibilities among the watercourse states, and implicitly acknowledge the inherent difficulty of finding such a balance.

All equity principles follow from the core principle that all watercourse states have a right to access water resources within their jurisdictions. From this follows that no watercourse state has the right to deny another access to the water resources, either through appropriation or destroying water quality. A logical corollary of that is that no watercourse state has the right to cause significant harm to another watercourse state through its use of or damage to water resources that they share. If significant damage does occur, then the state in which the damage originated must eliminate, mitigate, and/or compensate for the harm. These principles strongly suggest that Romania bears some overall responsibility to

downstream states to ensure that the damage resulting from the accident is mitigated and that, according to the polluter pays principle, Aurul S.A. abide by its obligation to compensate the victims. The principles also imply that Romania bears the responsibility for taking steps to minimise the risk that operations within its jurisdiction will cause significant harm to neighbouring watercourse states in the future.<sup>26</sup>

Watercourse states bear certain obligations pertaining to conservation of international waters. These obligations derive from the general principle that watercourse states must individually and in co-operation with each other protect and when necessary restore aquatic and riparian ecosystems. The focus of this principle is on ecosystems rather than individual resources such as fish, or conditions such concentrations of certain pollutants, leading to a broader and potentially more complex set up subsidiary obligations. At the minimum is a subsidiary principle that watercourse states must develop specific conservation plans in co-operation with each other, including plans for pollution reduction and control as well as monitoring.

Successful management of transboundary waters depends essentially on good-faith co-operation between states that share these waters. Watercourse states are generally obligated to enter into good-faith co-operation for the purposes of conservation, utilisation, and restoration of water resources and ecosystems. These obligations include but are not limited to developing watercourse management regimes, exchanging data and information, informing each other of accidents with transboundary implications, and developing joint strategies for preventing accidents and monitoring their effects. These principles suggest that while co-operation in the Danube River Basin has been growing and has resulted in significant institutional innovation, a yet greater degree of co-operation is both desirable and legally mandated. In particular, the obligation of states to ensure that facilities within their jurisdictions meet technological and safety standards agreed to with their neighbours would be a solid step in the direction of accident prevention and meaningful collaborative management of transboundary watercourses by watercourse states.

### *Principles of Liability for Environmental Harms*

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<sup>26</sup> The cornerstone international agreement on management of transboundary waters is the Convention on the Protection and Use of Transboundary Watercourses and International Lakes, signed in Helsinki in 1992. The convention is comprehensive, encompassing

The international community has tried and until now failed to develop and implement principles for liability for environmental harm. Liability is a sensitive issue and consensus may still take some time to achieve. The Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment, completed at Lugano in 1993 (The Lugano Convention) has established a general framework for liability, however the convention has faced many difficulties and has been signed only by nine member states of the Council of Europe, the sponsoring international organisation for the convention.<sup>27</sup> The most important reasons that states have not signed or ratified the convention include concerns around the fact that the convention does not limit the scope of liability to transboundary harms but also to harms occurring within the jurisdiction of a single state; the convention exceeds the liability regimes existing in member states at the moment by including environmental damage as such; its definition of dangerous activities exceeds that existing in some member states; and the convention is not sufficiently clear in its scope and definitions to provide the kind of legal certainty deemed requisite by industry and many member states.<sup>28</sup>

The one principle concerning liability that is often repeated in multilateral conventions, and that appears as Principle 13 in the Rio Declaration, is the simple exhortation for states to develop national level liability law and to co-operate with each other on developing international liability law:

States shall develop national law regarding liability and compensation for victims of pollution and other environmental damage. States shall also cooperate in an expeditious and more determined manner to develop further international law regarding liability and compensation for adverse effects of environmental damage caused by activities within their jurisdiction or control to areas beyond their jurisdiction.

Current efforts to develop a new liability instrument that covers environmental harms are once again centred at the UNECE. The Delegation of Switzerland to a joint special session of the meeting of the parties to the Convention on the Protection and Use of Transboundary Watercourses and International Lakes and the Convention on the

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conservation, utilization, research, and cooperation, and has engendered watershed-specific conventions, such as the Danube River Protection Convention.

<sup>27</sup> These are Finland, Greece, Italy, Luxembourg, Netherlands, Portugal, Cyprus, Iceland, and Liechtenstein).

<sup>28</sup> Economic Commission for Europe, Economic and Social Council, "Responsibility and Liability in Relation to Accidental Water Pollution," submitted to a joint special session of the Meeting of the Parties to the Convention on the Protection and Use of Transboundary Watercourses and International Lakes, and the Conference of the Parties to the Convention on the Transboundary Effects of Industrial Accidents, Geneva, July 2-3, 2001.

Transboundary Effects of Industrial Accidents has submitted a draft example of a liability and compensation instrument for damage resulting from the transboundary effects of industrial accidents. In present form, this instrument attempts to address the shortcomings of the Lugano Convention while still maintaining strict liability and compensation standards.

Specifically, the Swiss proposal clearly limits the scope of the instrument to damage suffered to parties within one state from activities occurring within the jurisdiction of another state. Moreover, the instrument as written seeks to clarify what kinds of damages would be covered, specifying damages as: 1. Loss of life or personal injury; 2. Loss of, or damage to, property; 3. Loss of income derived from use of the environment; 4. The costs of reinstating an impaired environment, limited to costs of measures actually taken or to be taken; and 5. The costs of preventive measures taken to minimise or mitigate the losses and damages due to an industrial accident occurring in another country. The instrument maintains strict liability for the owner of the industrial facility where the accident has occurred as well as fault-based liability for any person who contributed to the accident through wrongful intentional, reckless, or negligent acts or omissions. The instrument sets financial limits for liability under the strict liability clause, and none for liability under the fault-based liability clause. Finally, the instrument provides financial guarantees by requiring persons liable under the strict liability clause to insurance, bonds, or other financial guarantees that cover their liability under the instrument, in amounts not less than the financial limits set for strict liability in the instrument.<sup>29</sup> The Baia Mare and other relatively recent accidents in the mining industry have focussed attention once again on the issue of liability and compensation. It is hoped that the Swiss proposal serves as a framework for productive future negotiations and results in a workable liability regime for environmental harms resulting from industrial accidents.

#### **IV International Legal Obligations of Romania**

At the time of the accident, Romania was party to several international conventions and protocols that bear upon the Tisa/Tisza River accident. Foremost among these are the Convention on the Protection and Use of Transboundary Watercourses and International Lakes, The Convention on the Cooperation for the Protection and Sustainable Use of the Danube River (Danube River Convention), the Convention on Environmental Impact Assessment in a Transboundary Context, and the Hungary-Romania Treaty on

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<sup>29</sup> Delegation of Switzerland, United Nations Economic Commission for Europe, Economic and Social Council, Joint Special Session of the Meeting of the Parties to the Convention on the Protection and Use of Transboundary Watercourses and International Lakes and the Conference of the Parties to the Convention on the Transboundary Effects of Industrial Accidents, "Example of an Instrument on Liability and Compensation for Damage Resulting from the Transboundary Effects of Industrial Accidents," Geneva, July 2-3, 2001.

Understanding, Cooperation and Good Neighbourliness. Additionally, several international legal instruments exist to which Romania is not party but that would have been applicable to the accident. These will be discussed at greater length in the following section.

Romania, like other countries in transition, is challenged not only with adopting and integrating Western and international standards and instruments into its legal and administrative systems, but also with the additional burden of having to overcome a significant gap between its legal obligations and its capacity to implement the laws and policies to meet them. For all countries in transition, advances in the legal system have outstripped the more institutionally dispersed implementation capacity of the society. Countries like Romania have now entered a period where equal focus should be placed on increasing the capacity as well as the institutional will to implement laws and policies as on updating the laws of the land and harmonising them with international and European standards and requirements. In the case of complying with international agreements, this means needing to ensure that enforcement authorities are properly staffed and legally empowered to take the necessary steps to force operators and other organisations to bring their activities into line with the legal requirements. It also means that special efforts must be made to increase inter-ministerial and inter-agency co-ordination, both vertically and horizontally. Finally, there must be legal recourse for stakeholders, including civil society stakeholders, in cases of non-compliance.

<b>Table 1. International Legal Obligations of Romania</b>
The Convention on the Protection and Use of Transboundary Watercourses and International Lakes
The Convention on the Cooperation for the Protection and Sustainable Use of the Danube River
Treaty Between the Republic of Hungary and Romania on Understanding, Co-operation, and Good Neighbourliness

*The Convention on the Protection and Use of Transboundary Watercourses and International Lakes*

The Convention on the Protection and Use of Transboundary Watercourses and International Lakes is aimed at strengthening international measures to prevent, control, and reduce pollution of waters causing or likely to cause transboundary impacts. Covering point, non-point, and accidental sources of pollution, the CPUW obligates parties to manage all actual or potential sources of pollution through appropriate legal, administrative, economic, and technical means, including the use of best environmental practices, appropriate licensing, best available technology, and minimising the risk of accidents. The convention also requires

the parties to establish monitoring, research and development, bilateral and multilateral co-operation, consultation, joint monitoring and assessment, mutual assistance, warning and alarm, and public information systems. Moreover, the parties are obligated to support the development of an international liability regime for pollution of transboundary waters. The CPUTW specifically invokes the polluter pays principle and obligates parties to ensure the restoration of damaged ecosystems.

Arguably, Romania did not fully meet its obligations under the convention to minimise the risk of accidental pollution by not applying stricter technological standards to the Aurul operation. However, without a specific protocol that addresses the issue of accidental hazards, no more specific conclusions can be drawn. Moreover, the convention only obligates parties to apply best available technology to operations that have regular wastewater discharges (Art. 3 (1) (c)), and not to operations potentially subject to accidental releases of pollutants. Romania did meet its obligations under the convention to exchange information as early as possible. Romania had also established an accident emergency warning system in compliance with requirements under this and other international conventions.

#### *The Convention on the Cooperation for the Protection and Sustainable Use of the Danube River*

The Danube River Convention is the centrepiece of international environmental law directly and specifically applicable to the Danube River. It stands in relation to other institutions and instruments designed to address the environmental quality of the Danube River Basin, including the Bucharest Declaration of 1985, The Environmental Programme for the Danube River Basin, and the Strategic Action Plan for the Danube River Basin. These instruments and institutions form the basis for ongoing multilateral co-operation among Danube River Basin countries.

The Bucharest Declaration of 1985 represented the first step taken by Danube River Basin countries to collectively address water quality and management issues in the basin. The declaration set the stage for the creation in 1992 of the Environmental Programme for the Danube River Basin, an intergovernmental co-ordinating body. One of the principal achievements of the EPDRB is the establishment of a task force that drafted the Strategic Action Plan for the Danube River Basin, which in turn was the basis for the creation of the Transnational Monitoring Network in the Danube River Basin. All of these activities have been in support of the Danube River Convention.

In regards to prevention and management of accidental discharges of pollutants, the Danube River Convention reiterates many of the obligations of parties under the CPUTW.

Specifically, the DRC obligates parties to "make all efforts to control the hazards originating from accidents involving substances hazardous to water, floods and ice-hazards of the Danube River" (Art. 2 (1)), to conserve and restore ecosystems (Art. 2 (3)), to adopt legal provisions for handling hazardous substances (Art. 5 (2) (c)), minimise the risks of accidental pollution through preventive measures (Art. 6 (c)), exchange information relating to accidents (Art. 12 (1) (f)), and establish communication, warning, and alarm systems (Art. 16).

Romania, as party to the convention, has taken essential steps to implement the DRC, including establishing its part of the Accident Emergency Warning System under the Transnational Monitoring Network and exchanging information relating to accidents. Arguably Romania has failed to fully implement the provision obligating it to minimise the risks of accidental pollution through preventive measures. However, as the term "minimise" is not operationally defined in the convention, the issue is ambiguous.

*Treaty Between the Republic of Hungary and Romania on Understanding, Co-operation, and Good Neighbourliness*

The Hungary-Romania Treaty sets the general framework for security co-operation between the two nations within the context of safeguarding democracy, economic development, and peace in the Europe. Article 10 obliges the parties to the treaty to co-operate to prevent, reduce, and eliminate transboundary pollution and to inform each other without delay of accidents that threaten to result in ecological catastrophes and on measures taken in response to such accidents. Although some delay took place in informing Hungary of the Baia Mare spill, as discussed above, Romania fulfilled its obligations under the treaty to the extent possible at the time through channels established under the Accident Emergency Warning System and subsequent co-operation.

**V International Legal Instruments to which Romania Is Not Party or Was Not Party at the Time of the Accident**

<b>Table 2. International Legal Instruments to which Romania Is Not Party or Was Not Party at the Time of the Accident</b>
Convention on the Transboundary Effects of International Accidents
International Labour Organisation Prevention of Major Industrial Accidents Convention (C174)

Convention on Environmental Impact Assessment in a Transboundary Context
Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention)
Convention on the Law of the Non-Navigational Uses of International Watercourses

*Convention on the Transboundary Effects of Industrial Accidents*

The CTEIA is the main international legal instrument for industrial accident prevention to which European countries are party. Though Hungary is Party to this Convention, Romania is not. The convention seeks to reduce the risks and effects of industrial accidents through prevention, emergency preparedness, consultation and co-operation, legal and administrative reform, public participation, research and development, and exchange of information and technology. Additionally, as under other conventions, the parties to the CTEIA are obliged to support international efforts to establish a liability regime for industrial accidents.

With regards to accident prevention, the convention requires that parties take "appropriate measures" to reduce risks with the help and co-operation of operators. Operators are also required to demonstrate safe operating procedures by providing information about their plants to governments. The conventional also broadly covers such obligations between states as notification, sharing information, providing mutual assistance, and exchanging technology. This and other provisions of the convention require more specific and comprehensive national legislation in order to be effective. The Seveso II Directive of the European Union, discussed below, implements this convention at the EU level. It is recommended that all countries in transition join the CTEIA, and that EU accession countries promptly translate the Seveso II Directive into national legislation.

Until 2000, two regional co-ordinating centres, one each in Poland and Hungary, operated to aid in implementing the CTEIA in countries of transition. They also served as information clearinghouses. Their support activities included trainings and workshops, translation of documents into Russian, and writing and disseminating newsletters and other documents. The work of the centres should be evaluated and consideration given to the need for organisations to perform similar functions in the future.

*International Labour Organisation Prevention of Major Industrial Accidents Convention (C174)*

The ILO Convention on Prevention of Major Industrial Accidents is a significant instrument that could play a prominent role in reducing the risks of accidents such as the one at the Aurul site. The ILO C174 convention, unlike other applicable or potentially applicable conventions reviewed in this report, obligates parties to take preventive and protective measures based on "best available technologies" "where applicable" (Art. 4(2)). The convention also provides for significant on-site accident prevention and mitigation measures (Art. 9)), including the identification and documentation of risks, design and safety systems, training of personnel, emergency plans and procedures, worker-company collaboration, and adaptive learning through the analysis of accidents and near misses. Additionally, the convention requires parties to ensure that all affected facilities issue safety reports and have accident reporting mechanisms in place. National-level authorities are responsible for ensuring the adequacy of emergency plans, disseminating information on accidents to the public and states affected by transboundary pollution, and developing a comprehensive siting policy for major hazard installations. The ILO convention also spells out worker rights, such as the right to be informed of hazards, receive regular training on accident prevention, and to be consulted in the preparation of the safety report, emergency plan, and accident reports.

The ILO convention generally seeks to achieve risk reduction through a combination of technology, the clear allocation of responsibilities, and promoting collaboration on the part of interested parties. The convention could serve as the basis for the elaboration of the accident prevention regime at the levels of international and national law. At the very least, this convention's emphasis on worker participation is vital to accident prevention and should serve as a model for other legal instruments, such as implementing legislation for the CTEIA, that would be functionally equivalent to the ILO convention. As already noted, the Mining, Minerals and Sustainable Development Project of the International Institute for Environment and Development also emphasises the importance of meaningful participation of workers in designing mining policies, especially accident prevention policies, as workers are the ones who have the best first-hand knowledge of how plants actually operate and what hazards are involved in each operation. They also have a very strong personal interest in making sure that plants operate as safely as possible.

#### *Convention on Environmental Impact Assessment in a Transboundary Context*

At the time of the accident, Romania had signed but not ratified the transboundary EIA convention. The EIA convention obligates parties to prevent, reduce, and control negative transboundary effects of proposed activities, and to introduce environmental impact procedures and institutions at the national level. Although an EIA was done for the Aurul site, the Baia Mare Task Force of the European Union found that the EIA was inadequate.

This is not unusual in countries in transition. Although all transition countries have EIA legislation, they also struggle to develop a standardised EIA process that meets internationally accepted quality criteria. It is recommended that all countries in transition develop an institutional infrastructure that supports their EIA legislation, including providing funds to educational institutions to train a cadre of EIA specialists, creating EIA support centres at academic institutions, and making sure that authorities responsible for performing EIAs do not have conflicts of interest that would interfere with the quality of the EIA or the integrity of its interpretation.

Implementation of the EIA convention can significantly increase the capacity of a country to conduct impact assessments that meet high standards and accomplish the aim of reducing impacts and risks. Environmental impact assessment is intended not only to reduce impacts through the application of technical measures, but to draw on the collective capacities of a society to identify and reduce risks and impacts through public participation procedures and post-project analysis, or monitoring. The Baia Mare accident illustrates the dangers involved in circumventing international standards and procedures for EIA.

*Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention)*

At the time of the accident, Romania had signed but not ratified the Aarhus Convention. The Aarhus Convention is now a flagship horizontal international legal instrument intended to link environmental and human rights by guaranteeing the public access to information, participation, and justice in environmental matters. The convention should serve as a valuable tool in the future in guaranteeing the transparency of siting, design, risk, and other aspects of decisions that have environmental implications. A thorough public review of the Aurul mining project may very well have led to the realisation by the public that the plant would not meet adequate safety standards, and public pressure may have led to the installation of more appropriate technology, regardless of the legal minimum standards.

*Convention on the Law of the Non-Navigational Uses of International Watercourses*

This is a comprehensive treaty on the use and management of watercourses that obligates parties to co-operate closely with each other to ensure the sustainable and equitable development of transboundary water systems. Among other non-accident related provisions, the convention obligates parties to take measures to prevent accidents and to notify and co-

operate with other affected states in the case of emergency situations. In regards to accident prevention and management, the convention does not go beyond previously discussed conventions. However, the broad nature of the convention as a whole lays the framework for structuring particular watercourse conventions such as the Danube River Basin Convention.

## VI International Legal Instruments Not in Force and Proposed Instruments

<b>Table 3. International Legal Instruments Not in Force and Proposed Instruments</b>
The Lugano Convention
The Protocol on Water and Health of the Convention on the Protection and Use of Transboundary Watercourses and International Lakes

### *The Lugano Convention*

Compensation for victims of industrial accidents is addressed by the Convention on Civil Liability for Damage Resulting from Activities Dangerous for the Environment, or the Lugano Convention, or 1993. The Convention is based on objective liability in the context of the polluter pays principle. Specific provisions are included for causation, joint liability, and a compulsory financial security system for liability. The Convention also provides for public access to information. While the convention is not likely to come into force, it has provided a jumping board for current efforts to draft a liability instrument that has broader support in the international community.

### *Protocol on Water and Health*

The Protocol on Water and Health to the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes focuses on measures for the prevention of waterborne diseases. The protocol is concerned with mitigating the effects of transboundary pollution on human health. In addition, both the Convention on Co-operation for the Protection and Sustainable Use of the Danube River and the Convention on the Law of the Non-Navigational Uses of International Watercourses outline steps that parties are required to take in order to protect, preserve, and manage international watercourses. Each convention specifies measures that are necessary to prevent and control transboundary impacts.

## VII European Union Law

### *Potential Application and influence of European Union Legislation*

Many countries of the Eastern European region are preparing to become new members of the European Union, and therefore accept the Community's legislation on environmental matters. By transposing the Community's legislation into their respective national legal systems, accession countries will have important new tools to reduce the risk of accidents occurring in the future. The EU directives that can be applied to incidents such as the Tisa/Tisza pollution are summarised in the table below.

<b>Table 4. European Council Directives</b>
EIA Directives (Council Directive 85/337/EEC amended by Council Directive 97/11/EC) Requires environmental impact assessment of a large number of economic activities
Council Directive 76/464/EEC On certain dangerous substances discharged into the aquatic environment
Seveso II Directive (Council Directive 96/82/EC) On the control of major accident hazards involving dangerous substances
Council Directive 75/442/EEC amended by Council Directive 91/156/EEC On waste
Council Directive 99/31/EC On landfill waste with implications to mining activities
IPPC Directive (Council Directive 96/61/EC) On integrated pollution prevention and control

### *Accident Prevention*

The main EU accident prevention directive is the Seveso II directive (Council Directive 96/82/EC), which replaced Directive 82/501, or Seveso I, and which implements the UNECE Convention on the Transboundary Effects of Environmental Accidents. Seveso II provides a comprehensive accident prevention scheme, but the directive explicitly excludes mining operations from the list of operations covered by the directive. However, in light of the

accident at Baia Mare and a similar accident in Aznalcollar, Spain in 1998, the European Commission has drafted a proposal for amendments to the directive that would explicitly and unequivocally include mining, and in particular tailings ponds and dams built in association with mining, under the directive. If the draft amendments come into force, and if relevant applicant countries in Eastern and Central Europe adopt national legislation approximating it, the Seveso II directive would be the strictest and most directly applicable legal instrument that would help prevent similar accidents in the region in the future.

The Seveso II Directive requires, among other things, the development of safety management systems by operators of industrial facilities. Such assessments include detailed risk assessments, the obligation to take appropriate steps to reduce risks, emergency planning, monitoring, and audit and review. Safety management systems implement the major accident prevention policy that each operator must establish, and are reviewed and approved by competent authorities through a safety report that each operation must submit. The Seveso II Directive aims to be comprehensive and detailed in its components and sets a solid framework for all major aspects of industrial accident prevention.

#### *Pollution Control Directives*

Council Directive 76/464/EEC concerns pollution caused by certain dangerous substances discharged into the aquatic environment of the Community. Although the directive does not concern accidental pollution, it does require member states to establish national emission reduction programmes, which must include legally binding water quality objectives.<sup>30</sup> The national programmes would also require deadlines for the implementation of emission reduction targets. This would be a valuable tool to reduce point-source emissions in the countries of Eastern Europe, including emissions from mining activities. This directive would have been useful not just in the Tisa/Tisza case, but in all cases in which continuous discharge occurs. It has been shown by the International Commission for the Protection of the Danube River that several plants in the mining and pulp & paper industry in Eastern Europe constitute a high risk for accidental spills of dangerous chemicals.<sup>31</sup> High-risk spots were defined, where a leakage already exists, whereas plants with large quantities of hazardous substances in storage were classified as medium risk sites.<sup>32</sup> The EU Directive on

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<sup>30</sup> See European Information Service. *Supplement to Europe Environment n° 580*. 12 December, 2000. p.11.

<sup>31</sup> See *Regional Inventory of Potential Accidental Risk Spots in the Tisa catchment area of Romania, Hungary, Ukraine & Slovakia*. Prepared by the Permanent Secretariat of the ICPDR in cooperation with Zinke Environment Consulting for Central and Eastern Europe. Vienna, August 2000.

<sup>32</sup> See *id.* p.3.

dangerous substances discharged to the aquatic environment would have required mining industry plants to reduce their emissions to nearby rivers by eliminating existing leakages and therefore decreasing the chance for an accidental spill.

The EU directive on integrated pollution prevention and control (Council Directive 96/61/EC) focuses on prevention by requiring installations in Member States to obtain an operating permit from the competent authorities,<sup>33</sup> with emission limit values based on the use of best available techniques. Furthermore, permits must include provisions to deal with conditions other than normal operating conditions where there may be environmental risks. The scope of the IPPC Directive does include activities such as the mining operation at the Baia Mare site – as it is stated in Annex I, the directive covers “installations for the production of non-ferrous crude metals from ore, concentrates or secondary raw materials by metallurgical, chemical or electrolytic processes”.<sup>34</sup> Thus, like the Seveso Directive, the IPPC Directive with its provisions could have been a useful tool in *preventing* the Baia Mare spill. The plant would have been required to use possible accident scenarios under unusual operating conditions – therefore, the management would have known how to handle the excess precipitation and the cold weather without risking an accidental spill.

#### *Waste Management Directives*

Waste management within the EU is governed by Directives 75/442/EEC, 91/156/EEC and 99/31/EC. Directive 75/442/EEC establishes that States shall ensure that waste is recovered and disposed of without endangering human health and without using processes which could harm the environment.<sup>35</sup> Directive 75/442/EEC was amended in 1991 to exclude extraction, treatment and storage of mineral resources from its scope (Directive 91/156/EEC) in areas where these activities are covered by other Community legislation. However, since no EU legislation applies directly to this kind of waste, 75/442/EEC continues to apply to waste from extractive industries, including gold mining.<sup>36</sup>

Directive 99/31/EC, which is expected to be effective as of 16 July 2001, excludes *inert* wastes from the scope of the Directive, however, since wastewater containing cyanide far from being inert waste,<sup>37</sup> 99/31/EC applies to the Baia Mare case. Although the directive concerns mainly the authorisation of landfills, several of its requirements can be applied for

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<sup>33</sup> See European Information Service. *Supplement to Europe Environment n° 580*. 12 December, 2000. p.13.

<sup>34</sup> See *id.*

<sup>35</sup> See *id.* p.12.

<sup>36</sup> See *id.*

tailing ponds as well. The directive requires that landfill siting take account of the distance to groundwater and the risk of flooding and other potentially disruptive natural events; requires that appropriate measures to be taken in order to prevent water from precipitation to enter the landfill; requires that waste placement be done to ensure stability; and requires monitoring and reporting of the site. Clearly the immediate causes of the Tisa/Tisza spill were the instability of the dams and the overflowing of the tailings pond from excess precipitation. If the hydrocyclones had been allowed to operate and therefore keep the dams stable, the subsequent breaching of the dams could have been avoided. Protecting the ponds from precipitation on the other hand would have prevented the cyanide-laced wastewater from overflowing. Transposition of the new directive in national legislation would provide additional legal safeguards against future mining accidents.

#### *Horizontal Instruments: The EIA Directive*

One of the most important directives that emphasizes the preventive approach is Council Directive 85/337/EEC amended by Council Directive 97/11/EC, the so-called EIA Directive that implements the UN/ECE Convention on Transboundary Environmental Impact Assessment. The EIA Directive requires an assessment of the likely environmental effects of a large number of economic activities, including mining, before authorisation is given. Such an assessment should be reflected in an environmental report that has to be taken into account by the competent authority that grants permission.<sup>38</sup> The public has to be given the opportunity to participate to ensure transparency, and the resulting comments have to be carefully considered by the permitting authority. In the case of the Tisa/Tisza spill, the public was not well informed and, although an EIA was prepared before operations began, it was flawed, as reported by the Baia Mare Task Force<sup>39</sup>. Therefore, had it been in force in Romania, the EIA Directive of the EU could have been effective in ensuring that the permitting authority did not accept a flawed assessment of the risks involved. Romania has already signed the UN/ECE Convention on Transboundary Environmental Impact Assessment. Therefore, preparing to join the EU and adopting the EIA Directive would help the country to implement the requirements of the UN/ECE Convention.

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<sup>37</sup> Cyanide Spill at Baia Mare, Romania. UNEP, 2000. *Cited in: The Cyanide Spill at Baia Mare, Romania: Before, During and After*. The Regional Environmental Centre for Central and Eastern Europe, June 2000.

<sup>38</sup> See European Information Service. *Supplement to Europe Environment n° 580*. 12 December, 2000. p.10.

<sup>39</sup> See Report of the International Task Force for Assessing the Baia Mare Accident, December 2000.

To summarise, some European Union directives contain provisions that could be applied to the Baia Mare spill, were Romania to pursue a program of transposing the relevant legislation into domestic law. The Baia Mare accident should serve as a catalyst for countries to recognise the potential value of EU-level law in helping them build safeguards against industrial accidents and poor waste management practices. European Union directives are a particularly likely source of national-level legal reform as accession countries have a political interest in early transposition, even when the substantive issues receive little political attention. However, even after transposition it should be expected that implementation of EU directives can take time for countries in transition, in some cases up to several or more years.

## **VIII Gaps in International Legal Regimes**

### *The Accident Prevention Regime*

The UNECE Convention on the Transboundary Effects of Industrial Accidents is less comprehensive in its approach to accident prevention than the ILO Prevention of Major Industrial Accidents Convention. However, the TEIA convention remains the centrepiece multilateral agreement for industrial accidents, and therefore provides the most relevant framework for action. The ILO convention's superiority in the area of prevention lies in large part with the provisions calling for the use of best available technology, risk assessment of operations, training of personnel, and analysis of accidents for the purpose of adaptive learning and future accident prevention. Similar provisions, and provisions for a comprehensive safety management system approach to accident prevention and response, such as contained in the Seveso II Directive of the European Union, could be included in a protocol for accident prevention under the TEIA convention in the future.

### *The Environmental Liability Regime*

At present, a comprehensive international liability regime for environmental damages and damages to health and property is lacking.

The Sandoz incident in 1986, in which a chemical spill from Switzerland resulted in the worst pollution of the Rhine River in decades, highlighted many aspects of international law that at the time were inadequate. Since then, international law concerning the responsibility of states for prevention, information exchange, notification and assistance in

mitigating damages has been strengthened and elaborated.<sup>40</sup> However, the matter of liability for transboundary environmental damages is still left to domestic legal systems. The Tisa/Tisza accident serves as a reminder that after fifteen years, the same problem that existed in 1986 is still waiting to be solved today.

A new, more comprehensive liability regime could be drafted using the provisions of the Lugano Convention. Even though the convention is not likely to come into force, its provisions would be useful as a guide for new legislation. The object of the Lugano Convention is to ensure adequate compensation for the damage resulting from activities dangerous to the environment.<sup>41</sup> Thus, the convention is useful in determining who ought to compensate the victims of the Tisa/Tisza River cyanide spill for loss of the use of river water, loss of wildlife, long-term health effects of the spill, loss of income and restoration costs.

According to the convention, the operator of dangerous activity is to be liable for damage “[c]aused by the activity as a result of incidents at the time or during the period when he was exercising the control of that activity.”<sup>42</sup> The operator will be excused from liability if he/she can prove that the accident was caused by a natural phenomenon of an exceptional, inevitable, or irresistible character.<sup>43</sup> If the weather conditions in Baia Mare during January 2000 cannot be characterized as exceptional, inevitable, or irresistible, then Aurul S.A. ought to be liable for the economic and environmental damage caused by the failure of the tailings dam which was under its direct control at the time of the accident. As the Baia Mare Task Force reports, weather conditions were exceptional, but not unprecedented immediately preceding the accident<sup>44</sup>. It is estimated that heavy rains and snow of the type that caused the spill over at the Aurul plant occur one out of every twenty-five years in the region. Thus, a tailings dam built to cope with a situation occurring one out of every one hundred years ought to have been able to deal with the winter weather conditions in the area<sup>45</sup>.

At this time, the Lugano Convention is not likely to be revived and turned into law. Many States feel that the convention "gives too little legal certainty and that its definitions, especially in the field of environmental damage, are too vague."<sup>46</sup> Furthermore, a cross-

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<sup>40</sup> Astrid Boos-Hersberger. Transboundary Water Pollution and State Responsibility: the Sandoz Spill. *Annual Survey of International and Comparative Law*, Fall 1997. <http://web2.westlaw.com/shared/text>

<sup>41</sup> See Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment (Lugano 1993) (Not yet in force), <http://www.coe.fr/eng/legaltxt/150e.htm>.

<sup>42</sup> *Id.* at Article 6 (1).

<sup>43</sup> See *id.* at Article 8 (a).

<sup>44</sup> See Report of the International Task Force for Assessing the Baia Mare Accident, December 2000.

<sup>45</sup> See Esmeralda's Problem Child. Paper by Geoff Evans for the "Rivers of Life or Rivers of Death? *Transboundary Environmental Issues in Central and Eastern Europe*" Conference, Central European University, Budapest, Hungary, April 3-4, 2000.

<sup>46</sup> See *id.*

comparison of the Lugano Convention with other legal instruments on civil liability applicable to general water-related incidents reveals the lack of uniformity.<sup>47</sup> There are other instruments that apply not to the Tisa/Tisza spill specifically, but to water-related incidents in general. These include the ECE Convention on Civil Liability for Damage Caused during Carriage of Dangerous Goods by Road, Rail and Inland Navigation Vessels (CRTD), the Basel Protocol on Liability and Compensation for Damage resulting from Transboundary Movements, the Convention on Liability and Compensation in connection with Carriage of Hazardous and Noxious Substances by Sea and the Vienna Protocols on Civil Liability for Nuclear Damage. A lack of uniformity exists among these instruments with respect to the applicable geographical scope, types of environmental damage explicitly covered and the use of thresholds. It is important to emphasise that although the instruments mentioned above are not directly applicable to the Tisa/Tisza spill, they do constitute a framework of water-related environmental legislation that a new liability instrument should fit into. A proposed comprehensive environmental liability instrument would resolve these ambiguities and provide certainty as to the types of damage covered, the types of activity covered, the standard of liability applied to each activity, specific rules for transboundary harm, and a complete system of financial guarantees.

Although the convention does not meet the present needs of the international community, there are currently two new instruments governing liability being drafted and considered: 1.) A Liability Protocol to both the Convention on the Protection and Use of Transboundary Watercourses and International Lakes and the Convention on Industrial Accidents in a Transboundary Context and 2.) An EU Directive on Environmental Liability.

The proposed liability protocol is currently being negotiated under the Convention on Protection and Use of Transboundary Watercourses and International Lakes. Under this convention, there is an open-ended working group examining liability issues. The protocol was discussed at the first meeting of the parties to the Convention on Transboundary Effects of Industrial Accidents in November 2000. Eventually, the joint protocol is expected to be drafted by a joint body under both conventions. The protocol will then be presented to both conventions for adoption.

Due to the lack of comprehensive liability regimes existing in EU Member States, the European Commission is considering taking community action in order to address environmental liability.<sup>48</sup> There are various ways, in which the EU community could take action, including: 1.) Community accession to the Lugano convention; 2.) A regime for

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<sup>47</sup> See CTDC Rating and Research Foundation. *International Legal Instruments on Civil Liability Applicable to Water-Related Incidents. Coverage and Possible Gaps.*

<sup>48</sup> See White Paper on Environmental Liability, COM(2000) 66 final, Presented by the Commission on 9 February 2000, at Foreword.

transboundary damage only; 3.) A community recommendation; 4.) A community directive; and 5.) Inserting liability provisions into existing sectoral directives.<sup>49</sup> In March 2000, the Council welcomed the Commission's adoption of the White Paper and expressed a preference for a Community framework directive.<sup>50</sup>

The White Paper on Environmental Liability explores the various features that community action might include to ensure restoration of damage to the environment. First, a Community directive would not be retroactive. The directive would only cover damage that becomes known after the entry into force of the directive, unless the act or omission that resulted in damage had taken place before the entry into force of the directive.<sup>51</sup>

Second, the scope of a Community directive would expand on existing liability regimes within member States. The White Paper on Environmental Liability sets out both the type of damage to be covered as well as the activities to be covered (*see* Appendix B). A Community directive should cover environmental damage as such.<sup>52</sup> Environmental damage includes damage to biodiversity and damage in the form of contamination sites. Coverage for biodiversity damage would expand the scope of most EU Member States' environmental liability regimes.<sup>53</sup> Such damage could take the form of damage to habitats, wildlife or species of plants, as defined in the annexes to the habitats and wild birds directives.<sup>54</sup> The proposed directive would also cover traditional damage to health or property that is caused by dangerous activity.

The scope of a Community directive would be aimed at ensuring restoration of the environment where this is possible, and providing an incentive for compliance with national laws that implement Community environmental legislation.<sup>55</sup> Thus, the polluter would be under obligation to restore damage or pay compensation for the lost value of the injured asset. Traditional damage and contaminated sites would only be covered in so far as they are caused by activities, which are dangerous or potentially dangerous and regulated by EC legislation. Such legislation includes: 1.) Legislation that contains discharge and emission limits for hazardous substances into water or air; 2.) Legislation dealing with dangerous substances and preparations; 3.) Legislation with the objective of preventing and controlling risks of accidents and pollution; 4.) Legislation on the production, handling, treatment, recovery, recycling, storage, transport, trans-frontier shipment and disposal of hazardous and other wastes; 5.) Legislation in the field of biotechnology; and 6.) Legislation concerning transport

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<sup>49</sup> *See id.* at 25-26.

<sup>50</sup> *See* Press Release from the 2253<sup>rd</sup> Council Meeting, 7352/00 (Presse91)(OR.fr), Brussels, 30 March 2000, <http://ue.eu.int/Newsroom/>.

<sup>51</sup> *See* White Paper on Environmental *Liability*, *supra* note 140, at 16.

<sup>52</sup> *See id.* at 16.

<sup>53</sup> *See id.*

<sup>54</sup> *See id.* at 19.

of dangerous substances.<sup>56</sup> Strict liability shall be applied to activities that are dangerous to the environment and cause either traditional harm or involve cleanup of contaminated sites.

Biodiversity damage would receive the most comprehensive coverage under a Community directive. It is the only type of damage that would be compensated if it resulted from either dangerous activity or non-dangerous activity. Nonetheless, liability for biodiversity damage would be limited to protected areas and species under the Natura 2000 network.<sup>57</sup> Liability for biodiversity damage would also be limited to significant damage. Dangerous activity resulting in significant biodiversity damage would be governed by strict liability while non-dangerous activity resulting in significant biodiversity damage would be governed by fault-based liability.

Under a Community directive, the person who exercised control over an activity when it caused damage would be liable.<sup>58</sup> In order to ensure compensation, the Commission considered the possibility of requiring insurance, bank guarantees, internal reserves or sector-wide pooling systems in order to provide financial security for environmental damage risks.<sup>59</sup> However, in the White Paper on Environmental Liability, the Commission concluded that insurance availability for environmental risks is scarce. Insurance coverage for these risks would have to be developed gradually and may require capping liability for natural resource damages in order to improve the chances of early development.<sup>60</sup>

### *The Investment Regime*

In order to hold individual operators responsible for significant environmental damage, it is imperative for an international liability scheme to include rules on financial security for dangerous activities. Operators must be required to provide a financial guarantee in case harm does occur as a result of activities that pose great risks to human health and the environment. Financial guarantees could take the form of insurance, bonds, pooled taxes, bank guarantees or escrow accounts. As a condition of operation, each operator should have to provide a portion of any potential environmental liability. The amount of the financial guarantee should be proportional to the level of potential risk posed by the operation. Under such a system, States may be held responsible for secondary liability for activities within their control. Secondary liability would act as a “[b]ack-up mechanism in cases where the source

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<sup>55</sup> *See id.* at 17.

<sup>56</sup> *See id.* at 17.

<sup>57</sup> *See* Press Release from 2253<sup>rd</sup> Council Meeting, *supra* note 142.

<sup>58</sup> *See* White Paper on Environmental Liability, *supra* note 140, at 19.

<sup>59</sup> *See id.* at 23.

<sup>60</sup> *See id.*

of harm is unknown or the operator is incapable of paying the required compensation.”<sup>61</sup> This form of secondary liability would act as an incentive for States to apply precautionary measures and ensure routine upkeep of hazardous activities.

There is also a lack of binding international law governing sound investment procedures. International law must be developed to address privatisation and the responsibilities of investors. This gap must be filled in order to complete any risk assessment. “During the communist area, the mining industry, like others, suffered a lack of investment. When it emerged in 1989, it clearly needed some hard cash to get it back on track, and the most likely source of this seemed to be from abroad through the formation of joint ventures.”<sup>62</sup> Consequently, the mining law<sup>63</sup> came into force in Romania in September of 1998. Designed to encourage foreign investment, it seems to have succeeded. Although the mining law does require a license to be granted from the National Agency for Mineral Resources, the mining law focuses on fiscal obligations of the companies to the state. Environmental obligations of foreign investors are either non-existent or were not enforced in the Aurul case.<sup>64</sup>

Aurul estimated that their activities alone would generate \$148 million in revenue. Unfortunately, there is nothing to stop Esmeralda Exploration, the Australian half of the joint venture, from abandoning activities in Romania should an environmental catastrophe occur.<sup>65</sup>

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<sup>61</sup> *Id.* at 259.

<sup>62</sup> Gerry Johnstone, *Going for Gold*, Invest Romania Magazine (Winter 1999/2000) [http://www.investromania.ro/magazine/last\\_issue/14gold.html](http://www.investromania.ro/magazine/last_issue/14gold.html).

<sup>63</sup> See The Mining Law, (May 1998), <http://www.namr.ro>.

<sup>64</sup> The Law for the Environment does specify that the authorities for protection of the environment are to conduct environmental impact assessments and issue authorizations and approvals for projects. However, the law does not specify procedures to be taken during the assessment. There are no apparent guidelines in making the authorization and approval decisions. It does not seem likely that this legislation would conform with the obligations in the Convention on Environmental Impact Assessment in a Transboundary Context. In addition, none of the provisions of the legislation address the responsibility of foreign investors to conduct their own environmental assessment for projects, which involve joint ventures between the government and foreign industries. See The Law for the Environment, Chapter II, <http://www.namr.ro>.

<sup>65</sup> In fact, many of the operations performed by Australian mining companies in countries with transitional economies would not be allowed in Australia. It appears that Esmeralda did not apply the same rigour as would be required in Australia in the design of the tailings dam and emergency response preparations. It also failed to post a bond for environmental rehabilitation, as would be required in Australia. See Paper by Geoff Evans, Director, Mineral Policy Institute, *Rivers of Life or Rivers of Death? Transboundary Environmental Issues in Central and Eastern Europe*, Conference, Central European University, Budapest, April 3-4, 2000. According to the legal memorandum prepared for REC by Nörr Stiefenhofer Lutz of Bucharest, Article 80 of the Romanian Environmental Law requires companies to provide indemnity insurance against damages for “activities purporting major risks.” However, such activities are not defined in the legislation. It does not appear that Aurul was required to provide such insurance.

International obligations for financial institutions<sup>66</sup> would both reduce industrial accidents through risk assessment procedures and ensure that companies such as Esmeralda will not be free to leave should environmental damage occur.

Principle 9 of the Rio Declaration maintains that States should co-operate in the improvement of scientific understanding through exchanges of scientific and technological knowledge. Principle 9 also promotes the enhancement of technology transfers, including new and innovative technologies. One may argue that one of the many causes of the Tisa/Tisza pollution accident was that Romania did not have access to the best available technologies and shared scientific knowledge. It may be true in general that due to the lack of funding in Romania, universities and research institutes may not have access to up-to-date scientific information and that companies may not be able to afford to apply best available technologies. However, in the present case, an Australian company, which certainly did have access to up-to-date scientific information and to the use of best available technologies, was also involved. Furthermore, the closed-loop heap leaching method is generally used world wide,<sup>67, 68</sup> so in this case, one cannot blame the use of outdated technologies for the accident. Rather, “it appears that the company did not apply the same rigour as would be required in Australia, e.g. in the design of the tailings dam and emergency response preparations. Esmeralda did not lodge a bond for environmental rehabilitation as would be required in Australia.”<sup>69</sup>

On the international level, legal instruments should be drawn up to ensure that corporations do not engage abroad in dangerous activities which would be not allowed in their home countries. In the Tisa/Tisza accident, the company failed to ensure independent and adequate monitoring and applied less rigorous standards to waste disposal than it would be required in Australia. This phenomenon, however, is not limited to this incident, as Canadian, British and American companies in less developed countries also cause environmental damage to a degree that they would not be able to do in their home countries.<sup>70</sup> Therefore, the use of best available technologies cannot be fully implemented in the countries

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<sup>66</sup> Private, government and multilateral banks, export credit agencies, private investors and pension funds, and insurers.

<sup>67</sup> Report of the International Task Force for Assessing the Baia Mare Accident, December 2000.

<sup>68</sup> See Esmeralda's Problem Child. Paper by Geoff Evans for the “Rivers of Life or Rivers of Death? *Transboundary Environmental Issues in Central and Eastern Europe*” Conference, Central European University, Budapest, Hungary, April 3-4, 2000.

<sup>69</sup> See The Real Face of the Kangaroo: A fact finding tour to the Aurul S.A. gold mining enterprise in Baia Mare, Romania and along the Lapus-Somes-Tisza river system in Romania and Hungary, Greenpeace, March 2000

<sup>70</sup> See Esmeralda's Problem Child. Paper by Geoff Evans for the “Rivers of Life or Rivers of Death? *Transboundary Environmental Issues in Central and Eastern Europe*” Conference, Central European University, Budapest, Hungary, April 3-4, 2000.

of Central and Eastern Europe unless appropriate legislation is drawn up to ensure that these technologies are used where they are available. Appropriate legislation would include an enforceable, mandatory code of conduct to regulate transnational corporations in their home countries and abroad.

Along with the Romanian government, under a regime regulating investment, Dresdner Kleinwort Benson could bear some responsibility in the Baia Mare accident. The investment arm of Dresdner Bank<sup>71</sup> invested USD 8.5 million in Aurul as part of a USD 28.2 million gold extraction project in Baia Mare. If the investment bank had been required to perform an environmental screening of Aurul before investing in their gold mining operations in Baia Mare, the environmental disaster may have been avoided.

In order to screen potential investments, financial institutions should first classify transactions as low, medium or high risk based on environmental performance of the company and the environmental risk of the planned activity.<sup>72</sup> In order to assess the environmental risk of the company seeking investors, the financial institutions might issue an environmental questionnaire at the beginning of the process. The questionnaire would help the financial institution to determine the risk of the company by requesting information related to environmental management, regulatory compliance, history, and the environmental state of the concerned site. An evaluation of the survey would allow the investors to determine the company's environmental performance.

Next, the parties would have to examine the proposed activity. "The purpose of this screening is to identify those activities whose performance is forbidden by international treaties signed by the given country, identify those activities where the investor approval is required, as well as requirements and possible risk related to the activity in any given country."<sup>73</sup> If the company and the planned activity are low risk, then the environmental screening is complete. If the risk is medium to high, then the financial institution should perform a more detailed investigation.

A more detailed investigation would include site visits, environmental audits, interviews with the management, interviews with employees, and assessment of remediation costs. The purpose of the detailed investigation is to identify existing environmental liabilities. International law could be useful in this stage by providing an environmental code or set of rules to aid investors, industries and governments in assessing the risk of a potential project.

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<sup>71</sup> Signatory to the UNEP Financial Institutions and the Environment Initiative.

<sup>72</sup> The following information is taken largely from Robert Reiniger, presentation on *Environmental Issues in Merger and Acquisitions Process in Central Europe*, Rivers of Life or Rivers of Death? Transboundary Environmental Issues in Central and Eastern Europe, Central European University, Budapest, April 2000.

<sup>73</sup> *Id.*

At the final stage of the merger or acquisition, there should be an environmental clause included in the contract. The clause would summarise the acquired information. The clause would also contain information on liability issues, costs necessary for regulatory compliance, potential environmental risks of planned activity and clean-up costs of contaminated sites. The contract may also require foreign companies to post a bond in case an environmental emergency does arise. The bond would prevent the foreign industry from leaving the home country without compensating for environmental damage. Environmental screening by financial institutions will both reduce environmental risks and harms as well as protect the investors from high risk companies.

### *Challenges of Implementing International Legal Instruments*

Although it has been shown that many legal instruments are not applicable to the current situation simply because they are not in force, a closer look reveals problems with the implementation of those instruments that would be applicable to the current situation. In some cases, additional steps need to be taken in order to make full use of those legal instruments already in force.

The cyanide spill on the Tisa/Tisza River drew attention to gaps concerning liability in currently available legal instruments. These instruments include the OECD Guidelines for Multinational Enterprises and the Lugano Convention. As the Lugano Convention is not likely to come into force, the OECD guidelines are the only instrument thus far to address financial disclosure and responsibility. Although the guidelines are designed to promote responsible business conduct and improve the foreign investment climate, observance of the guidelines by enterprises is voluntary and not legally enforceable. International organisations should further develop investment guidelines and step up their efforts to encourage corporations to abide by them. Implementing the current guidelines is a bare minimum requirement for ensuring integrity in foreign direct investment.

Appropriate legal instruments do exist on the international level. The Convention on the Protection and Use of Transboundary Watercourses and International Lakes, the Protocol on Water and Health to the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes, and the Danube River Protection Convention are all designed to strengthen international measures to prevent, control, and reduce pollution of transboundary waters. Toward this end, each of the instruments contains obligations for States to take specific measures including: 1.) Adopting contingency plans; 2.) Implementing early warning systems; and 3.) Taking appropriate measures to prevent transboundary impact. However, international measures can only be strengthened, and pollution of transboundary

waters can only be reduced if appropriate measures exist on the national level.

Transboundary water pollution can be reduced only if pollution within a country's boundaries is reduced. Possible ways include self-regulation, regular monitoring and public reporting of emissions, training workshops, technology transfer, improvement of regulations and their enforcement<sup>74</sup> and establishment of clear and responsible authorisation procedures.

One way for the international community to encourage implementation of environmental instruments at the national level is to promote public participation and ensure greater transparency in environmental matters. The Aarhus Convention provides an opportunity for the public to be involved in the environmental assessment of a proposed activity. The convention provides guidelines for informing the public about preparation for and response to any event that would pose an imminent threat to human health or the environment. Furthermore, the convention provides a mechanism for individuals to gain access to domestic legal systems if their rights have been impaired under either this convention or under national law. The Aarhus Convention can thus be seen as a means through which other legal instruments can more easily be implemented.

In the young democracies of Eastern Europe, however, civil society traditionally has not played a role in decision-making. Thus, people in those countries should be made aware of their opportunities to make their voices heard and to exercise their rights under the Aarhus Convention, once it is in force. The first step of implementing the Aarhus Convention in those countries, as the REC's Jerome Simpson points out, would be to ensure financial support for NGOs and to clear information channels to the media. The media would be an invaluable tool in raising awareness and highlighting good industrial performance.<sup>75</sup>

### *The Need for Ecosystem Approaches in International Environmental Law*

There is also a lack of existing international law dealing with the long-term chronic ecological effects of hazardous accidents. Mining and regulatory documents often state that cyanide in water rapidly breaks down in the presence of sunlight into largely harmless substances such as carbon dioxide and nitrate.<sup>76</sup> However, cyanide does react with many other substances to form about a hundred different compounds, many of which are known to be toxic to aquatic organisms. Furthermore, some of these compounds have been found to persist in the environment for longer periods of time and to accumulate in plant tissues.

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<sup>74</sup> Simpson, Jerome. Environment and Legal Issues Related to Past and Future Mining in Central and Eastern Europe.

<sup>75</sup> See Id.

<sup>76</sup> See Bob Moran. *Cyanide in mining. Some observations on the chemistry, toxicity and analysis of mining-related waters.* <http://www.mpi.org.au>

However, regulatory agencies do not require monitoring for these compounds, so they remain undetected, and it is assumed that they do not exist<sup>77</sup>. Although these cyanide-related compounds are usually less toxic than free cyanide, they may cause severe chronic effects in aquatic life and the surrounding ecosystem. To fully incorporate health standards into contingency plans, international law must be developed in order to address wildlife and ecosystem health as well as the chronic effects of hazardous pollution.

Existing legal instruments also fail to consider the effects of activities that in themselves are not classified as dangerous<sup>78</sup>. For instance, changing the watercourse or the volume of water flow does not fall into the category of water pollution, yet these activities can cause serious environmental damage. On the one hand, such measures can aggravate the consequences of natural disasters (floods or drought). On the other hand, these non-dangerous activities can negatively affect the surrounding ecosystem without causing actual water pollution. For example, wetlands depend on available water, so changing the course of a river can have a deleterious effect on their flora and fauna. This example also shows that in order to protect the environment from the effects of industrial accidents, legal instruments need to take into account the health of the whole ecosystem surrounding a body of water. Current legal instruments are limited to the human health aspects of industrial accidents or to water pollution.

## **IX Conclusion and Recommendations**

Severe industrial accidents can highlight gaps in environmental legislation and prompt action from the legislative authorities and states co-operating with each other at the international level. The Sandoz accident in 1986, for instance, resulted in the strengthening of the accident prevention regime in the European Community in what has come to be a comprehensive approach to prevention in the Seveso II Directive. Today as we consider the Tisa/Tisza incident, we are facing some of the same issues that were brought up in the Sandoz accident in 1986, but which have not yet been successfully addressed in countries in transition. These include accident prevention, liability, and corporate responsibility.

This report has reviewed international legal instruments that apply to industrial accident prevention, use of international watercourses, and liability for environmental harms. In addition, it has pointed to the absence of binding legal instruments in the area of foreign direct investor responsibility. The regimes for all of these areas must be viewed as forming

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<sup>77</sup> See *id.*

<sup>78</sup> See CTDC Rating and Research Foundation. *International Legal Instruments on Civil Liability Applicable to Water-Related Incidents. Coverage and Possible Gaps.*

an integrated framework within which all the pieces work synergistically prevent accidents and, when they do occur, minimise and mitigate their consequences. At the moment only the regime for use of international watercourses is well enough developed not to require significant modifications.

The first priority for countries in transition should be to become party to the international legal instruments currently available to them. As noted above, Romania is a party to and is implementing the relevant accident-related provisions of the Convention on the Protection and Use of Transboundary Watercourses and International Lakes and the Danube River Convention. The main advantage of these conventions is that they have led to the creation of the Transnational Monitoring Network, which functioned reasonably well after the Baia Mare accident. However, neither of these conventions provides a sufficiently well defined framework for accident prevention. Consequently, Romania and other transition countries should join the principle international instrument for accident prevention, the Convention on the Transboundary Effects of Industrial Accidents. It ought to be noted that many countries in transition are already signatories to the treaty, including Albania, Bulgaria, Estonia, Hungary, Latvia, Lithuania, Poland, and the Russian Federation. The TEIA convention is a particularly potent tool for countries that are also accession candidates to the EU as those countries will also have to adopt into national legislation the Seveso II Directive, which implements the TEIA at the EU level. Consequently, we strongly recommend that accession countries

- Become parties to the Convention on Transboundary Effects of Industrial Accidents;
- Transpose the Seveso II Directive as soon as possible.

Non accession transition countries, which would not transpose the Seveso II Directive into national legislation, should consider joining the International Labour Organisation Prevention of Major Industrial Accidents Convention, which sets a higher standard for prevention than does the CTEIA. However, as the CTEIA is the principle international legal instrument for accident prevention, it is strongly urged that non-accession countries join this convention. Moreover, countries in the Eastern European region are strongly urged to develop bilateral and multilateral agreements, as recommended by the CTEIA, to address regionally specific accident risks. The ongoing risks associated with mining in Romania warrant a serious effort to develop a bilateral agreement between Hungary and Romania that addresses accident risks and prevention.

In spite of ongoing efforts to develop an international legal regime for liability for environmental harm, as yet no multilateral treaty has come into force, leaving states

individually responsible for establishing liability for environmental harms. The current lawsuit by Hungary against Aurul S.A. has been filed in Hungarian court and relies on Hungarian liability statutes. We strongly urge countries in transition to recognise the immediate need to place liability for environmental harms high on the political agenda, and to take the following steps to address the issue:

- Raise the liability issue at the interministerial level, most importantly at the next Environment for Europe conference;
- Develop a common regional strategy for liability that roughly follows recent EU initiatives on liability;
- Take an active part in international efforts to revive the political commitment to forge an acceptable multilateral treaty on liability for environmental harm, working on the basis of the Swiss example instrument for liability for environmental harms submitted to the Parties to the Conventions on the Protection and Use of Transboundary Watercourses and International Lakes and Transboundary Effects of Industrial Accidents.

Liability is only one aspect of corporate responsibility for environmental harms caused by industrial enterprises. In addition, the broader issue of what restrictions, if any, should be applied to investors in transition countries. The dangers of direct foreign investment include the fact that corporations often do not face the same tough regulatory oversight of their activities in transition countries that they do in Western countries, leading some to believe that profits can be increased at the expense of safety, health, and environmental risks. We believe that such policies serve neither the investors themselves nor the countries receiving the investments. While a binding code of corporate conduct and investment procedures is currently not on the political agenda and therefore not feasible, we strongly encourage the international community to work with the investment community to address this issue by taking the following steps:

- Review existing voluntary industry codes for investment and environmental responsibility;
- Review the OECD guidelines for investors;
- Identify gaps and deficiencies;
- Develop a comprehensive voluntary code for foreign direct investors that covers environmental responsibilities;
- Develop strategies to assist investors in abiding by the code.

We have included an environmental code of conduct for investors as Appendix A to this report. We intend the code to serve as the basis for further discussion.

Furthermore, countries in transition face particular problems in implementing international legal instruments. Even those countries actively transposing the body of EU law know that full implementation of the *aquis communautaire* is many years distant, especially in some technically difficult and financially costly fields such as environmental regulation. Having said that, certain steps can be taken to ease the road to implementation.

- Create implementation strategies at the national level for various sub-areas of the environmental sector;
- Increase capacity for inter-ministerial and inter-agency co-ordination and co-operation;
- Establish partnerships between governmental authorities and NGOs and citizens to establish projects that NGOs and citizens can carry out to aid in implementation of environmental laws;
- Promote governmental and NGO/citizen collaboration to define implementation priorities, thus benefiting from a broad range of perspectives and knowledge;
- Provide access to justice for NGOs and citizens, understanding that action by the courts against the government can often be in the government's larger interest.

Finally, the development of environmental law at the national, regional, and international levels should begin to incorporate the ecosystems perspective in which individual actions and policy goals cannot be considered in separation from their larger impacts on entire ecosystems. The ecosystems perspective recognises that while many activities might have locally detrimental effects, they may have only negligible effects on the ecosystem as a whole. On the other hand, the ecosystems perspective takes account of cumulative effects, thus recognising that seemingly trivial actions might have significant implications for ecosystem health. We strongly recommend that environmental laws recognise the need to maintain ecosystem health and stability as a primary objective.

## **Appendix A**

### **Proposed Environmental Principles for Direct Foreign Investment in Potentially Dangerous Activities in Countries in Transition**

The following environmental code is intended to apply to foreign direct investors (FDIs) who invest in potentially environmentally hazardous industrial activities in the countries in transition in Central and Eastern Europe.

#### **Principle 1**

(a) FDIs should assiduously apply accepted international standards for corporate "good citizenship" to their investment projects in countries in transition. Among other responsibilities, good corporate citizenship requires corporations to ensure that their operations meet international standards, even when governments do not or cannot enforce compliance with international norms. Except in accordance with paragraph (b), FDIs should not invest in a country unless it determines that the country provides an adequate legal framework for regulating hazardous activities, together with properly resourced authorities with powers of approval, inspection and enforcement.

(b) An FDI may invest in a country not meeting the requirements of paragraph (a), if it provides for continuous independent outside verification that its activities meet relevant international standards and norms.

#### **Principle 2**

FDIs should give due consideration to the role that their project would play in the environmental aims and objectives of the recipient country.

#### **Principle 3**

FDIs should take all legal and regulatory steps required under the laws, regulations, and administrative practices of the countries in which they invest to protect the environment, conserve natural resources, and avoid accidents that would result in environmental harms or harm to human health.

#### **Principle 4**

FDIs should take all reasonable and prudent steps necessary to prevent industrial accidents.

- Operations should develop safety management systems that include detailed risk assessments; strategies for reducing risks; emergency plans, and monitoring, auditing, and review of safety systems.
- Operations should employ the best available technology relevant to safety and accident prevention.
- FDIs should dedicate substantial resources to training of personnel in accident prevention and response.
- The above-mentioned measures should include automated shutdown procedures for discreet units and entire operations.

### **Principle 5**

FDIs should establish environmental performance objectives and strategies for regularly measuring their environmental performance.

- Where environmental standards for their industry are higher in the home country than in the recipient country, FDI should base their environmental performance standards on the standards of the home country.
- FDI are encouraged to exceed the minimum environmental standards set in recipient and/or home countries in establishing environmental performance objectives.
- FDI should establish monitoring and assessment procedures to evaluate their environmental performance.
- FDI should share the results of their environmental performance evaluations with authorities, non-governmental organizations, and the public in recipient countries.

### **Principle 6**

FDI should assume cradle-to-grave responsibility for all hazardous substances *produced* in and through their operations. Where cradle-to-grave responsibility is not imposed on producers as a matter of law, FDI should, in addition, take the necessary measures to insure proper handling, storage and disposal of all hazardous substances *obtained from others and used* in their operations.

### **Principle 7**

FDI should abstain from financially involving local officials or community leaders in development projects in order to avoid conflict of interest situations.

### **Principle 8**

Where potential impacts of an FDI's operations may be transboundary in scope, the FDI should involve the public, authorities, and other stakeholders of the potentially affected country to the same extent as it would involve those of the country of location.

### **Principle 9**

FDI should designate company officers as focal points for environmental matters and for public information, and such officers should hold regular open meetings with the public, and be accessible to the public at reasonable times and places.

### **Principle 10**

FDI should promote the application of the polluter pays principle in their own operations and in those of the business community to which they belong.

### **Principle 11**

Investors should take a pro-active stance vis-à-vis regulatory agencies to ensure proper environmental oversight of their activities, recognizing that the transitional status of recipient countries may create administrative and regulatory conditions that differ significantly from conditions in advanced liberal democracies.

- FDI should gain a thorough knowledge of the legal and regulatory framework and requirements for environmental protection of recipient countries.
- FDI should conduct independent assessments to ensure that their operations meet all legal and regulatory requirements.
- FDI should, when necessary, prompt environmental authorities in recipient countries to enforce all legal and regulatory requirements.

### **Principle 12**

FDI engaged in hazardous activities should ensure full life cycle operation of facilities, including closure and remediation to original state.

### **Principle 13**

FDI should abstain from exerting pressure on the authorities in the countries in which they are investing to lower social and/or environmental standards.

### **Principle 14**

FDI should be able to demonstrate sufficient financial assurance for the full and fair costs of compensation and remediation in the event of an accident or other damage, applying the “worst case scenario” approach.

### **Principle 15**

FDI should abstain from creating competition between countries or regions within a country to attract a proposed investment on the basis of the level of environmental standards.

- The costs of complying with environmental regulations should not be a factor in choosing one investment location over another.
- Candidate recipient countries should not be given the impression that low environmental standards or enforcement relative to each other would enhance the likelihood of receiving investments.

### **Principle 16**

FDI should provide national and local authorities with analyses of how proposed investments will fit into environmental and development plans of the target countries.

- Many CITs have national environmental action plans that set long-term environmental goals. FDI should provide analysis of how their operations will not complicate meeting, or will help meet those goals.
- Many CITs have national development or sustainable development plans. FDI should provide analysis showing how their proposed operations will meet the environmental standards and goals established in the plans.
- In the absence of national environmental and development plans, FDI should provide analysis to national and local authorities of how proposed operations will

aid in the pursuit of sustainable development according to internationally accepted criteria and principles, such as those expressed in the Rio Declaration of the UN Conference on Environment and Development.

### **Principle 17**

FDIs should recognize that all investments should aid in the process of transition to sustainability. Proposed operations therefore should work within sustainability limits of the ecosystems within which they will be built.

- FDI should ensure that environmental impact assessments conducted on their proposed operations take into account impacts on ecosystem structure, function, and composition.
- The utilization of natural resources by FDI should fall within limits of sustainable use for those resources.
- Sustainability limits for natural resource use should be set using a precautionary approach.

## **Appendix B**

### **Romanian Environmental Law**

The Romanian State acknowledges that every person has the right to a healthy environment, and therefore guarantees the access to information regarding environmental quality, as stated in Article 5 of Law No. 137/1995 on environment protection. The responsibility entailed by environmental protection is under the auspices of the central environmental authority (the ministry) and its territorial agencies. Furthermore, there is reciprocity between Romania and an involved foreign state with respect to the recognition and enforcement of foreign judgements. In this particular case, Hungary, one of the affected states, concluded a treaty with Romania regarding the legal assistance on civil, family and criminal causes (ratified in Romania through Decree No.505/1958).<sup>79</sup> However, Romania can refuse foreign court decisions, if 1) the decision is the result of a fraud, 2) the decision breaches the public order of Romanian private international law or 3) if the lawsuit has already been resolved through a decision rendered by Romanian courts. Romania recognises that in a situation where all of part of the damage took place in a state other than the state where the tortious act occurred, the laws of that state govern compensation. Furthermore, Romanian civil code states that any person found guilty of a tortious act or omission, which was prejudicial to another, is obliged to compensate it accordingly.

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<sup>79</sup> Nörr Stiefenhofer Lutz. Personal Communication, April 11, 2000.