

The „Kolontár Red Mud Case“

Environmental Liability 2011

Case Study

Justice and Environment 2011

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Executive Summary

Decades before transposing ELD, Hungary’s environmental legislation had its own **liability regime for damages** caused by use of environment. The system of national environmental liability is **based on three pillars** according to the general environmental protection act.

Rules on **administrative liability** contain direct intervention of the authorities, that is limitation, suspending or prohibit the operation or activities, and obligations such as remedying the damages and/or payment of environmental protection fines. In case of **civil liability** regarding to environmental damages regulation of the Civil Code on damages originating from hazardous operations is applicable being a **strict liability** system which makes the entities - causing damage - liable irrespective of negligence or fault, with very limited exemptions referable. The tightest area of liability is **criminal law** and among its main rules three crimes have been defined as “damaging the environment”, “damaging the natural environment” and “violation of waste management regulations”.

The **Hungarian transposition of ELD** – as one of only three EU countries – was finished in the deadline required by the Directive – has been carried out in two significant legislative steps. One act **amended different environmental related acts** (acts on general rules of environmental protection, water management, nature protection and waste management) in connection with liability and related special pieces of legislation – governmental or ministerial decrees – have been adopted or varied. New or modified definitions have been introduced, such as the preventive measures, remedial measures, natural resources services, costs.

In some cases the implementation solely meant the **translation of the Directive’s wording**, on the other hand there were applicable and practical changes as well. Several governmental decrees - involving the areas of **assessment and remedying the damages**, groundwater and surface water protection - have implemented the detailed rules of ELD.

By the transposition of the Directive the **level of environmental protection has been raised** as some requirements have become more detailed and comprehensive. A systematic approach and a new system of preventive and remediation measures have been introduced based on the remediation plans to be prepared by the operators and by the authorities.

A regulation on estimation of the size of damage to the nature and a new system of remediation measures in the field of surface water protection has also been set up. The transposition did **basically not change** – rather made it detailed - the already existing general regime of liability that is basically **strict liability** in case of administrative and civil liability and fault based liability in criminal law.

The ELD demands taking measures to encourage the development of **financial security instruments** and markets by the appropriate economic and financial operators, including financial mechanisms in case of insolvency, with the aim of enabling operators to use financial guarantees to cover their responsibilities under the Directive.

This requirement is part of the Hungarian environmental legal system since 1995 as an option. The environmental act formally included a general provision on necessity of having financial guarantees.

The implementation and effectiveness of national and EU regulation on environmental liability has been of the highest importance when an ecological disaster took place on October 4, 2010 in Hungary. The western dam of cassette No. X. of the red mud reservoir belonging to a privately owned company, Magyar Alumínium Zrt. (Mal Co. Ltd.) ruptured and a mixture of 600-700 thousand m³ of red sludge and water inundated the lower sections of the towns of **Kolontár**, Devecser and Somlóvásárhely via the Torna creek.

The day after the accident, the suspension of the alumina production at the plant and the reconstruction of the dam were ordered and building four additional dams between the reservoir and Kolontár had been started. The **competent authorities** – based on the regulation mentioned above – have the remedial measures and other steps taken such as declaration of state of emergency in three counties, evacuation of inhabitants; management of the disaster, mitigation of environmental damage and reconstruction of the dam and additional dams.

The **government** – after the amendment of the act on national defense - took **control of the company** and allocated state compensation in the form of newly built houses or financial aid while the company gave approx. **300 € per capita** for the aggrieved parties (municipalities and also residents).

The environmental authorities ordered– inter alia - the **suspension of alumina production**, monitoring and measuring the pollution, carrying out a comprehensive **environmental audit**, clean-up work and waste management **fine of half million €** had been imposed to the MAL Co. Ltd as well.

Most of the measures were based on the national environmental regulation amended and adopted in accordance with ELD. The implementation of the Directive has new terms and measures (e.g. remedial measures) introduced into the Hungarian legislation.

The related Gov. Decrees created a **detailed legal background for treatment of environmental damages**; however, **preventing** had not been handled as a priority before the accident and – as it was later often referred – the concerned authorities did not have clearly designated tasks and competences.

In the Kolontár case plenty of questions regarding to application of the liability regulation raised and from the facts revealed it could be unambiguously deducted that **national authorities licensing and monitoring** the activity of the plant and the company also had failures. It also could be concluded that prevention shall have more importance in the legislation and in licensing procedures.

Although the obligation of ELD's transposition was more or less fulfilled by the legislator, there have been problems in applying the regulation because **clear competences** in monitoring and licensing are lacking and the system of financial guarantees for environmental damages was not efficiently set up and applied.

Whether a Member State approves a **mandatory financial security** scheme is one of the factors that will have most impact, at least in the short term, on the development of a market for financial security instruments, including insurance.

The Env. Prot. Act and several government decrees aim to comply with the Directive regarding the prevention and exposure of the threat of damage and damage control. However, actual **financial liability** for the damage has not been properly implemented in the required scope. It seems to be a serious deficiency of the Hungarian legislation that it **lacks the framework regulation** demanding a prerequisite for granting permission to and for operating all activities with a threat of environmental damage to have **cost assessments made** with the participation of a **independent experts**, based on which the authority would be under obligation to demand proof of the appropriate financial guarantee from the parties engaged in activities of environmental use.

A simple and easily enforceable scheme would only cover activities regulated under the **IPPC regime** with operators being able to choose from all types of financial security instruments, such as insurance, bonds, and guarantees.

Efficient compulsory financial security would mean that users of environment facing potential environmental liability under the ELD must provide evidence to a competent authority demonstrating that costs arising from the potential liability will be covered; this legal instrument would ensure the implementation of the polluter-pays principle.

I. Objectives of this study

The so called Red Mud-Case in the Hungarian city Kolontár was one of the worst European environmental accidents of the last years. By the same time it was the first „major case” where the Environmental Liability Directive 2004/35/EC (ELD) was applied.

This study aims to analyze the Hungarian environmental liability system, including civil and criminal liability with a particular focus on the added value and weaknesses of the ELD.

II. Transposition of ELD into the Hungarian legal system

The problem of environmental liability has already been raised by the Hungarian environmental legislation well before the adoption of the Environmental Liability Directive (ELD). The first environmental act – No. II of 1976 – was very vague, however the Act No. LIII. of 1995 – the environmental act in force -, the Act No. LIII. of 1996 on nature conservation and some related government decrees (such as the one about groundwater protection) have covered liability regulations, sometimes similar to the ELD requirements.

The ELD was implemented into the Hungarian legal system with the regulations listed below:

- Act XXIX of 2007 on the amendment of different environmental related acts in connection with environmental liability;
- Act LIII of 1995 on environmental protection (hereinafter as Env. Prot. Act.)
- Act LVII of 1995 on water management;
- Act LIII of 1996 on nature protection;
- Act XLIII of 2000 on waste management;
- Gov. Decree 90/2007. (IV.26.) on the system of preventing and remedying environmental damage;
- Gov. Decree 91/2007. (IV.26.) on the provisions related to the assessment of the size of damages to nature and on the rules of remedying the damages
- Gov. Decree 92/2007. (IV.26.) on the amendment of Gov. Decree 219/2004 (VII. 22.) on groundwater protection;
- Gov. Decree 93/2007. (IV.26.) on the amendment of Gov. Decree 220/2004. (VII.22) on surface water protection.

There were two major steps of transposition. The Act XXIX of 2007 on the amendment of different environmental related acts in connection with environmental liability basically amended the framework environmental act, the Env. Prot. Act. on the basis of ELD new or amended definitions have been introduced, such as the preventive measures, remedial measures, natural resources services, costs, etc.

The most important change took place within the chapter on liability, where the major requirements of the ELD has been introduced. In some cases the act – such as the original Art. 101 of Env. Prot. Act. – changed the wording only, introducing elements, such as the services, in some cases new elements have been added.

New articles – 102/A, 102/B and 102/C – have been inserted implementing the ELD scheme, actually as a means of translation:

- the escape clauses,
- the need to take preventive measures,
- the scope of preventive measures,
- the option of compensation measure,
- obligations of the operator to provide information,
- the rights of the authorities to intervene, to oblige,
- the options of remedying (that has already in place more or less)
- the methods of using the land-register in order to sign the damage.

There are three other related acts (on water management, nature protection and waste management), which all have direct reference on environmental liability. These acts do not have their own liability system, but they refer back to the provisions of Env. Prot. Act and the above listed four Gov. Decrees cover several related and specific regulation.

The nature conservation act has also been amended, inserting the possibilities to adopt remedying obligations, such as in *integrum restitutio*. The waste management act (Act XLIII of 2000) could get a specific reference to the environmental act in connection with the environmental threats, and also the statutory limitation of liability extended to 30 years after closure. Finally, the Act LVII of 1995 on water management has been also amended referring the liability provisions to the Env. Prot. Act.

The main rules of ELD were transposed by amending the above mentioned acts and the Gov. Decree No. 90/2007. implemented the detailed rules of the Directive. The Decree's scope extends to surface water, groundwater, species and habitats described in Bird Directive and Habitats Directive, protected species, areas of Natura 2000 and protected areas having nationwide relevancy. The Decree has – inter alia - the obligation of preparing work plan for remediation introduced.

The Government Decree 91/2007. (IV. 27.) on specification of the extent of damage caused to nature (Art. 2. 1. of the ELD) and the provisions of remedying the damage repeats the ELD wording, then add procedural and authorization requirements. The Decree follows the line of the original groundwater regulations (from 2004) in defining the sequence of steps taken in the process of remedial measures. These are investigations in order to determine the further steps, remedying, consisting of the following phases: fact finding, intervention, monitoring.

The authority shall decide about these steps, taking into consideration those general requirements, based on ELD, such as Art. 6 and some annexes. These phases are itemized later, with all the procedural details, documentation requirements, special details of monitoring, etc. At the end the environmental authority decides about the necessary further steps or the finalization of remedial actions.

There are the following annexes attached to the Decree: those aspects which provide assistance in defining the likely adverse effects (based upon Annex I of the ELD), such as the fragility of the population, the length of a cave or the human health consequences, the aspects of remediation and the interventions taken by the authority (based upon Annex II of the ELD).

We do not know of any such cases, which are based upon. This is unfortunate, as this could be used easily, due to the relative flexibility of conditions.

The Government Decree 92/2007. (IV. 27.) amended the Government Decree 219/2004. (VII. 21.) on groundwater protection. Government Decree 219/2004 (VII.21.) on the Protection of Groundwater sets out the rules regarding the contamination of groundwater. According to the Decree, if the environment users breach certain prescriptions of the Decree regarding the protection of groundwater, fines can be levied on them. Furthermore, those entities or persons who are liable for environmental damage under the Env. Prot. Act must participate in the remediation of the groundwater. Failure to do so may result in a fine.

Actually, the groundwater regulations could already use the scheme of the ELD before the amending regulations, thus the changes were not substantial. Unfortunately, the prevention side has not been strengthened. The following steps of remediation are used (see nature conservation): fact finding, intervention, monitoring. All the steps may be repeated if needed.

The provisions also cover the procedural aspects, such as the documentation, deadlines, time-limits, intervention plans and similar issues. The whole is strictly connected to the damages in geological vehicles, covering also the soil, due to the fact, that there are no specific environmental technical requirements related to soil protection. This is also connected to procedural obligations related to permanent environmental damage.

These ground-water types of measures are reported constantly to the Commission as the enforcement steps of ELD, while these are only changes compared with the original groundwater regulations. That is the reason, why it is nearly impossible to clarify, what is the state of enforcement of the Directive, while legally it is possible to use the existing provisions as means of implementation. So on the one hand, there is a certain level of realistic implementation along the lines of the previous decree, while on the other hand, nothing new has been really added, leastwise not in the field of prevention.

The Government Decree 93/2007. (IV. 27.) on surface water protection amended the 220/2004. (VII. 21.) Government Decree in connection with the remediation of environmental damage. Actually, these amendments imported the similar provisions from the groundwater protection decree. The major difference between the surface water and groundwater regulations could be that the surface water legislation did not contain anything similar, while in case of groundwater, only some changes have to be done. Again, there is nothing about prevention. The following steps of remediation are used: investigations in order to determine the further steps, remedying, consisting of the following phases: fact finding, intervention, monitoring. Similar to groundwater, all the steps may be repeated, if necessary.

There is no real practice related to surface water, still the groundwater legislation is the only living part of the new transposition legislation.

The transposition of the Directive has been finished in deadline required by the Section 19. of ELD. Compared to the previous system, the level of environmental protection has been raised, as some requirements became stricter, and the new system of the Env. Prot. Act

became more detailed and more comprehensive with special regard to the administrative liability provisions for example.

New requirements have also been introduced which have not been regulated before:

- a new system of preventive and remediation measures have been introduced, based upon the obligation to adopt remediation plans by the operators and by the authorities;
- a systematic approach have been introduced on how to estimate the size of damage to nature and on the rules of remedying the damage to nature;
- finally, a new system of remediation measures in the field of surface water protection has been set up.

The definition of environmental damage is a bit more detailed than in the Directive; the three specific elements of environmental damage – water, soil and nature – have not been identified, only a more general definition of environmental damage is covered.

The "environmental damage" means any measurable adverse and significant change in the environment or any environmental media which may occur directly or indirectly, or any measurable impairment of a natural resource service which may occur directly or indirectly. (Art 4. point 13 of Env. Prot Act.)

In the Hungarian legal system „operator” as such is not defined. The definition which may be used here is the "use of the environment" which means an activity involving the utilization or loading of the environment or a component thereof and „user of the environment” which is anyone who perform activities, that utilize, load, endanger or pollute the environment.

The transposition did basically not change the already existing general regime of liability, that is:

- no-fault liability in case of administrative liability;
- no-fault liability for damages caused by activities dangerous to the environment;
- fault based (intentional or negligent) liability in case of criminal law

After the transposition the Env. Prot. Act uses almost the same wording as Art. 4. sub (1) of the Directive concerning the exemptions. On the other hand exemptions listed in Art. 8.4. of the Directive are not applied.

Finally, as regards financial security, it has been part of the Hungarian environmental legal system since 1995, as an option, but there are no implementing regulations until now. Applying the polluter pays principle had already been mandatory before adopting the Directive, though with the deficiency of financial deposits concerning.

III. Environmental liability regime in Hungary

Based on the Env. Prot. Act, polluters of the environment shall bear liability for the impact of their activities upon the environment according to civil law and criminal law, regulatory and administrative provisions.

Main obligations of users of the environment -according to the provisions of Env. Prot. Act, polluters of the environment - shall

- refrain from engaging in any activity, posing imminent threat or causing damage to the environment and cease such activity where applicable;
- notify - without delay - the environmental authority concerning any threat to the environment or environmental damage, and supply the information requested by the environmental authority;
- where environmental damage has occurred - take all practicable steps to mitigate the adverse impact, limit and prevent further environmental damage;
- where environmental damage has occurred - take measures to restore the baseline condition, or a similar level, or restore, rehabilitate, or replace the damaged natural resources and/or impaired services;
- accept responsibility for the environmental damage they have caused, and cover the costs of prevention and rehabilitation.

The liability for the unlawful activity shall burden under joint and several liabilities the owner and the possessor (user) of the real property, on which the activity is or was carried out - until evidence is provided to the contrary.

The owner shall be exempted from the joint and several liabilities, if he/she names the actual user of the real property and proves beyond any doubt whatsoever that the responsibility does not lie with him.

Where damage to the environment has been established by final decision, the environmental authority shall adopt a resolution ordering remedial measures, with a prohibition of transfer and encumbrance, concerning those properties of the person required to undertake the said remedial measures, which are deemed sufficient to cover the estimated costs of the remedial measures.

If any part of the costs of preventive and/or remedial measures in connection with environmental damage had been financed from the central budget instead of the polluter of the environment, the environmental authority shall file a lien on the real estate properties owned by the polluter of the environment to the benefit of the Hungarian State up to the amount financed, and - with a view to provide security - shall order prohibition of transfer and encumbrance registered on the properties in question.

If the properties owned by the polluter in question fail to cover the sum financed from the central budget, the environmental authority shall file a lien on the movable assets of the polluter affected.

The Hungarian Company Act (Act. No. IV. of 2006.) laid down that the owners and executive officers who have supported a resolution/taken a measure that they knew or should have known with reasonable care that it would cause environmental damage if carried out, bear unlimited, joint and several liability in the event of the termination of the business association for the company's liability for remediation and compensation for environmental damages, which the company has failed to satisfy.

The members/shareholders and executive officers, who did not take part in the process of adopting the resolution/taking the measure, voted or protested against the measure, are exempt from liability.

As it was mentioned above, the system of environmental liability is based upon the following three pillars according to the Env. Prot. Act:

- administrative liability;
- civil liability;
- criminal liability.

III. 1. Administrative liability

As regards administrative liability Env. Prot Act. contains provisions on

- direct intervention of the authorities, that is limitation, suspending or prohibit the operation or activities, and obligations such as remedying the damages;
- payment of environmental protection fines in the event of failure to comply with the requirements specified by law or by official decisions.

Polluters of the environment shall take the measures specified by law to prevent environmental damage and where environmental damage has occurred all the necessary remedial measures.

The environmental authority shall order polluters of the environment to take preventive and remedial measures specified by law or may itself undertake the preventive remedial measures in connection with environmental damages, or may hire others to do so.

The regulation regarding to administrative liability was amended with exceptions. The polluter shall not bear the administrative liability, if the environmental damage

- is caused by an act of armed conflict, war, civil war, armed riot or natural catastrophe;
- is directly resulting from the implementation of a final decision of the authority or the court.

However, these provisions do not provide exemptions for the user of environment from its obligations of mitigation and taking remedial measures.

III. 2. Civil liability

The two main sources of environmental liability in civil law are the Env. Prot. Act and the Civil Code (Act No. IV. of 1959.).

According to the regulations on damages originating from hazardous operations the Env. Prot Act. adopted a strict liability system making the entities - causing damage - liable irrespective of negligence or fault, with very limited exemptions available.

Damage caused to third parties as a result of actions or omissions including the utilization of the environment must be remedied according to the regulations of the Civil Code on hazardous activities.

Env. Prot. Act. 105. § (1): “Damage caused to other parties with activities or omission entailing the utilization or loading of the environment shall qualify as damage caused with an activity posing hazard to the environment and the provisions of the Civil Code on activities entailing increased hazard shall be applied.”

Civil Code 345. §: “(1) A person who carries on an activity involving considerable hazards shall be liable for any damage caused thereby. Being able to prove that the damage occurred due to an unavoidable cause that falls beyond the realm of activities involving considerable hazards shall relieve such person from liability. These provisions shall also apply to persons who cause damage to other persons through activities that endanger the human environment.

(2) Damage shall not be compensated for to the extent that it originates from an activity attributable to the aggrieved person. (3) Any exclusion or limitation of liability shall be null and void; this prohibition shall not apply to damage caused to a thing. (4) The period of limitation for compensation claims shall be three years.”

Damage caused to third parties by virtue of activities or negligence entailing the utilization of the environment shall qualify as damage caused by an activity endangering the environment, and the provisions of the Civil Code on damages originating from hazardous operations shall apply.

In respect of such damage, the Civil Code provides that those carrying out activities involving increased hazards are strictly liable for any and all damages which such activities cause. To seek compensation, the aggrieved party is required to prove the existence of damages he claims to have suffered and the causal link between the unlawful action/omission and the damages sustained.

If the aggrieved party succeeds in proving all of these conditions, the only excuse for the party causing the damage is to prove that the damage was brought about by an unavoidable cause falling out of the increased hazards of the relevant activity.

III. 3. Criminal liability

As the third pillar of liability for environmental damages, Hungarian criminal law there also have been regulations related to causing damage to environment or to nature included. The criminal law operates with fault-liability. The related crimes described in the criminal Code (Act. No. IV. of 1978.) are the followings.

III. 3.1. Damaging the environment:

“280. § (1) Any person responsible for any pollution of the earth, the air, the water, the biota (flora and fauna) and their constituents, resulting:

a) in their endangerment;

b) in damage to such an extent that its natural or previous state can only be restored by intervention;

c) in damage to such an extent that its natural or previous state cannot be restored at all;

is guilty of a felony punishable by imprisonment for up to three years in the case of Paragraph a), for up to five years in the case of Paragraph b), and between two to eight years in the case of Paragraph c).

(2) Any person who imports or exports any substance that damages the ozone layer, or any product that contains such substances in a quantity in excess of what is required for personal use, or distributes such substances, is guilty of a felony punishable by imprisonment for up to three years.

(3) The person who damages the environment through negligence shall be punishable for misdemeanor in the cases of Paragraph a) of Subsection (1) and of Subsection (2) by imprisonment for up to one year, community service work, or a fine; in the case of Paragraph b) of Subsection (1) by imprisonment for up to two years, community service work, or a fine; and in the case of Paragraph c) of Subsection (1) by imprisonment for up to three years.

(4) In connection with Paragraph a) of Subsection (1) and with the first and second phases of Subsection (3) the perpetrator shall not be punishable, and in the case of Paragraph b) of Subsection (1) his punishment may be reduced without limitation if he voluntarily terminates or cleans up the environmental damage before the judgment in the first instance is delivered.

(5) For the purposes of this Section 'pollution' shall mean loading of the earth, the air, the water, the biota (flora and fauna) and their constituents to an extent exceeding the emission standard laid down by law or by decree of the competent authority."

III. 3.2. Damaging the Natural Environment

"281. § (1) Any person who unlawfully obtains, possesses, distributes, imports, exports, transports through the territory of the country, engages in the trafficking of or damages or destroys:

a) any species of a living organism under special protection;

b) any species of protected living organisms, provided that the aggregate value of these species expressed in monetary terms reaches the threshold amount determined by specific other legislation for the species of a living organism under special protection;

c) any species listed in Annexes A and B to the European Council Regulation on the protection of species of wild fauna and flora by regulating trade therein; is guilty of a felony punishable by imprisonment for up to three years.

(2) Any person who unlawfully and significantly alters:

a) any special bird protection area or special nature preservation area designated as such by the regulation on conservation areas of importance on the European Community scale, or proposed for such designation, or any conservation areas of special importance, or proposed for such designation, or

b) any protected natural habitat, cave, habitat of living organisms shall be punishable in accordance with Subsection (1).

(3) The punishment shall be imprisonment for up to five years, if:

a) the damage done to nature as set forth in Paragraphs a) and b) of Subsection (1) results in the destruction of the species of living organisms under special protection or the species of protected living organisms to an extent where the aggregate value of such destroyed species of living organisms under special protection or the species of protected living organisms expressed in monetary terms reaches the highest amount determined by specific other legislation for the species of a living organism under special protection, times two, or if the environmental damage referred to in Paragraph c) results in the destruction of the specimen of living organisms which are not placed under any degree of protection in Hungary;

b) the damage done to the natural areas set out in Subsection (2) results in the irreversible damaging or destruction of any special bird protection area or special nature preservation area designated as such by the regulation on conservation areas of importance on the European Community scale, or proposed for such designation, or any conservation areas of special importance, or proposed for such designation, or any protected natural habitat, cave, or the protected habitat of living organisms.

(4) The person who damages the natural environment as defined in Subsection (3) through negligence shall be punishable for a misdemeanor by imprisonment for up to two years, community service work, or a fine.

(5) For the purposes of this Section 'species of living organisms' shall mean: a) species of a living organism in any form or stage of development; b) hybrids of living organisms propagated artificially or otherwise; c) derivatives of a living organism, including dead specimens and any parts and derivatives thereof, and any goods or products made from any of the above, or containing any ingredient that originates from any of the above."

III. 3.3. Violation of waste management regulations

"281/A. § (1) Any person who:

a) engages in the disposal of waste at a site that has not been authorized by the competent authority for these purposes;

b) engages in waste management without authorization, or by exceeding the scope of the authorization, or engages in any other unlawful activity involving waste, is guilty of a felony punishable by imprisonment for up to three years.

(2) The punishment shall be for a felony imprisonment of up to five years if the crime described in Subsection (1) is committed involving waste that is deemed hazardous under the Act on Waste Management.

(3) The person who commits the crime through negligence shall be punishable for misdemeanor by imprisonment for up to one year, community service work, or a fine in the case of Subsection (1), or by imprisonment for up to two years, community service work, or a fine in the case of Subsection (2).

(4) For the purposes of this Section:

a) 'waste' shall mean any substance that is deemed waste under the Act on Waste Management, and that may be hazardous to human life, bodily integrity or health, or the earth, the air, the water, and their constituents, and the species of living organisms;

b) 'waste management' shall mean the collection, gathering, transportation of waste, including if exported from or imported into the country, or transported through the country in transit, and the pre-processing, storage, recovery and disposal of waste."

Depending upon the type and gravity, the relevant conduct may qualify as "damaging environment", "damaging a natural environment", "violation of waste management regulations" and are as such sanctioned by the Hungarian Criminal Code. The Code of Administrative Offences also contains certain similar provisions on the protection of the environment.

IV. The red mud case – Kolontar, Hungary

IV. 1. The catastrophe – facts

The Ajka alumina sludge spill was an industrial accident at a toxic waste reservoir chain of the Ajkai Timföldgyár alumina plant of concern MAL Zrt, in Ajka, Veszprém County, in middle-western Hungary. On the 4th October of 2010, the northwestern corner of the dam of reservoir no. X. collapsed, freeing about a million cubic meters of liquid waste from red mud lakes. About 600–700 000 m³ of red sludge have spilled out, while about 90 percentage of the sludge remained in the reservoir.

The mud was released as a 1–2 m (3–7 ft) wave, flooding several nearby localities. Three villages (Devecser, Kolontár, Somlóvásárhely) were inundated, 10 people died, and more hundred people suffered injuries. About 40 square kilometers of land were initially affected.

The mud, which is highly alkaline when it is first produced, is stored in large open-air ponds; there is thought to be about 30 million tons of red mud stored around the Ajkai Timföldgyár plant. The chemicals extinguished all life in the Marcal river, and reached the Danube River on the 7th October, prompting countries located further down the river to develop emergency plans in response.

IV. 2. Measures based on national legislation implementing ELD - and beyond

On the 4th October, the company notified the competent authorities about the accident.

The most important measures taken were the followings:

- declaration of state of emergency in three counties;
- management of the disaster;
- mitigation of environmental damage;
- suspension of alumina production;
- reconstruction of the dam and additional dams;
- evacuation of inhabitants;
- managing director of the plant had been arrested;
- the government took control of the company;
- state compensation for the incident;
- clean-up work.

The Government has issued an order to declare a state of emergency in three counties (County Veszprém, Győr-Moson-Sopron and Vas) due to the burst of the red sludge reservoir in Kolontár. The Minister of Internal Affairs convened the Government Coordination Committee in order to decide upon further measures to be taken.

Coordination was at an unprecedented high level between the Police, the Army, the National Emergency Response Directorate and the National Ambulance Service. The Hungarian Government activated the EU Civil Protection Mechanism for urgent international assistance. The European Union Monitoring and Information Centre (MIC) communicated the request for expert assistance to the 30 participating countries.

In order to provide the Hungarian and international media with reliable information, the Government has set up a website related to the 'red sludge' disaster.

For the mitigation of the environmental damage the Environmental and Water Directorates ordered emergency preparedness status. On the day after the disaster a warning message was sent out to the Danube basin countries by Hungary through the alert system of the Danube Protection Convention. In the framework of the mitigation activity in order to reduce the alkaline effect gypsum has been spread in the affected settlements and into the rivers. As a result, the Ph value of the rivers has gradually decreased.

Based on the Art. 26. sub (1) of Gov. Decree. No. 314/2005. (25.XII.) on Environmental Impact Studies and Integrated Environment Use Permits. On the 5th of October of 2010, the inspectorate - regardless of appeal – ordered the company

- to suspend its production activity permitted by the integrated environmental license of the plant; (later it was modified to several limitations)
- to close the damaged reservoirs and to take immediate measures for preventing further pollution.

The Art. 4. point 13. of Env. Prot Act. – mentioned above - has “environmental damage” defined. Referring to that definition, to Gov. Decrees 219/2004. , 90/2007., 91/2007. and applying the Art. 39/A. of Gov. Decree 220/2004. on surface water protection the environmental authority ordered to prepare a plan for disclosure of environmental impacts and affected areas until the 30th of October and to submit the final documentation of disclosure including every possibly affected elements of environment until the 31st of December.

Art. 2. sub (2) of the Gov. Decree 90/2007. prescribes that polluters shall- where environmental danger has occurred -, take all practicable steps to mitigate the adverse impact, and to limit or to prevent further environmental damage, such as in particular, to control, contain, remove or otherwise manage the relevant contaminants causing the environmental damage and/or any other damaging factors. Based on Art. 2. sub (2) of Gov. Decree 90/2007 the inspectorate ordered the plant

- to start collecting, channeling, neutralizing and clearing the liquids flowing out from the damaged reservoir;
- to prepare and submit a plan for intervention until the 15th of October;
- to supply information in every two hours to the authority.

According to Art. 39/A-B and E. of Gov. Decree 220/2004 the inspectorate's decision - regardless of appeal - prescribed

- preparing a plan for monitoring until 25th of October,
- designating points of measurement until 22nd of October and to examine air pollution from 22nd of October continuously,
- monitoring the quality of the surface water daily and supply weekly information to the authority.

A resolution was passed - based on the Art. 13. point c) of Gov Decree No. 220/2004 and Art. 10. sub (1) of Gov Decree 90/2007. - calling for preparing operating/remediation plans until the 20th of October of 2010.

A consummate environmental audit was also ordered to be carried out for the exploration and study of the environmental impacts of the accident according to the Art. 74. sub (1)-(2) of Env. Prot. Act.

The day after the accident, the Environmental State Secretary ordered the suspension of the alumina production at the plant and the reconstruction of the dam. Experts have started building four additional dams between the reservoir and Kolontár. These dams were designed to slow down the flow of red sludge should there be another spill. The fourth was built within Kolontár, to shield its unaffected areas. Until the additional dams were prepared, the inhabitants of Kolontar were evacuated.

The Act on National Defense had been modified providing the opportunity of taking control of companies under defined circumstances. Applying the new provision, the government – after declaration of state of emergency - took control of the company, appointing a commissioner to manage the operation of the company.

The government has focused on compensation for the incident, job security, and identifying further locations at risk of accidents. Hungarian Prime Minister claimed that the cause of the spill was presumably human error, while the position of the company was so far that the accident was a natural disaster because the accident came after a particularly wet summer and the collapse of the dam was unpredictable.

All the municipalities and residents affected by the accident received financial compensation from the State in the form of newly built houses or financial aid; these expenses and all the expenses of the cleaning and restoration process falls upon the company liable for the accident due to the law.

The clean-up work on private areas has been more or less finished, and on the public areas including agricultural areas is still ongoing with manual and mechanical equipment. Due to evaporation, air quality is being continuously monitored; nearly everywhere the quantity of harmful materials is below recommended maximum safety levels.

The Hungarian Parliament adopted its Resolution No. 117/2010 (XI. 30.) has established a committee in order to examine the liability regarding to the environmental catastrophe.¹

The company had been fined with an enormous sanction by the inspectorate. The environmental authority had a fine of 135 billion HUF (~ 500 million €) imposed with its decision which was appealed by the company.

The aggrieved parties received 100 thousand HUF (~330 €) per capita from the MAL Co. Ltd although their damages significantly exceeded this amount.

¹ 117/2010. (XI. 30.) OGY határozat a Kolontár melletti vörösiszap-tározó átszakadása miatt bekövetkezett környezeti katasztrófával kapcsolatos felelősség feltárását és hasonló katasztrófák jövőbeni megakadályozását célzó országgyűlési vizsgálóbizottság felállításáról

In addition to criminal liability, the executive director of the company had been arrested. The National Bureau of Investigation was handling the matter as a top-priority case. An investigation was launched into suspected professional misconduct leading to mass fatalities and into harming the environment. Since the accident was not triggered by natural causes but was an industrial accident, investigation is focusing on human responsibility and the responsibility of the company operating the red sludge pond. The investigation was also seeking to establish whether technical inspection of the reservoir by the relevant authorities was in compliance with regulations.

In accordance to the current news², the investigation has been finished in November of 2011, and the investigator authority has fourteen persons (employees of the company) proposed to be charged with causing public danger (qualified as a crime committed with negligence and causing death and particularly considerable pecuniary injury), damaging the nature and infringement of waste management regulation (qualified both as crimes committed with negligence).

Crime of causing public danger is laid down in Section 259 of Criminal Code: *“(1) The person who creates public danger by causing flood, by inducing the destructive effect of an explosive,*

radiating or other substance, energy or fire, or impedes the prevention of public danger or the mitigation of its consequences, commits a felony, and shall be punishable with imprisonment from two years to eight years.

(2) The punishment shall be imprisonment from five years to ten years, if the crime is committed

a) as part of a criminal conspiracy,

b) causes particularly considerable or greater pecuniary injury.

(3) The punishment shall be imprisonment between five to twenty years or life imprisonment if the causing of public danger results in the death of one or more persons.

(4) A person who causes public danger by negligence, shall be punishable for a misdemeanor offense by imprisonment of up to three years, or, if such offense causes particularly considerable or greater pecuniary injury, up to five years, or, if such offense results in the death of one or more persons, between two to eight years.

(5) The person who commits preparation for causing public danger, shall be punishable for a felony with imprisonment of up to three years.

(6) The punishment of the person who voluntarily terminates the public danger before any damaging consequence has arisen therefrom, may be mitigated without limitation.”

IV.3. Conclusions from the case

The red mud catastrophe had plenty of questions raised in addition to **shortcomings of existing legislation, competencies**, permitting procedures, **remediation, financial guarantees** and regarding to bearing responsibility.

Evidently, compliance with the related regulations shall be continuously observed by the competent authorities having clear and exactly designed authorization and competencies.

The company had also argued that the **environmental inspectorate** had examined their activity two weeks before the accident and found everything in compliance with the law; however, the environmental authorities referred that their obligations do not extend to the supervision of the structure of the ground or the stability of the dams.

² http://www.hirado.hu/Hirek/2011/11/22/05/Lezarult_a_vorosiszap_nyomozas_.aspx

The **State Secretariat of Environment Protection** had first countered that control upon functioning of the reservoir was the task of the environmental inspectorates and – approving the lack of sufficient qualification - named the notary of concerned localities to be responsible for monitoring.

Uncertainties in competencies could also cause that the installation of the reservoir had not been ceased, although several information about the structure of the soil had problems implied such as the fragility of the ground.

Examinations stated that **monitoring and control of the reservoir** was not sufficiently circumspect, and **non-governmental organizations** could prove with records - taken in the summer of 2010 - that leakage of red mud could have been earlier perceived at the given container.

In its comprehensive study on hazardous and toxic waste site **the European Commission's Joint Research Centre** listed mining and mineral processing tailings dams – presumably including the Kolontár reservoir as a priority concern **in 2004**.

Although governmental bodies and authorities made the company – and its employees, and directors – solely responsible for the accident, from the facts discovered it also could be concluded that **Hungarian authorities** with a role in licensing and monitoring the red mud reservoir had committed errors.

The role of the **district mine directorate** was also to be examined regarding the concerns raised by the treatment of the red mud waste. For the scope of ministry regulation 14/2008. (IV.3.) GKM on the treatment of mining waste, as Art. 1. sub (1) is as follows: *“the scope of the regulation covers the treatment of the prospecting, extraction, processing and storage of mineral raw materials (hereinafter: mining waste)”*.

It is exactly the processing of a mineral raw material (bauxite) that is processed by an alkaline treatment by MAL Co. Ltd. (at its Ajka site), red mud being the waste product of this process.

The **“The Kolontár Report”**³ has stated the following

- “the Central Trans-Danubian Environmental, Nature Protection and Water Management **Inspectorate had endorsed** the classification of the deposited material as non-hazardous waste, thus significantly relaxing requirements on disposal and subsequent monitoring.
- the authorities endorsed the **uncorroborated disaster management** plan handed in by MAL Co. Ltd.
- the Inspectorate failed to engage the competent District Mining Inspectorate in the licensing process;
- the notary of Ajka had prohibited the depositing of hazardous waste in the reservoir, **but failed to take steps** when hazardous waste was in fact deposited in the area;

³The Kolontár Report - CAUSES AND LESSONS FROM THE RED MUD DISASTER.
<http://lehetmas.hu/wp-content/uploads/2011/05/Kolontar-report.pdf> downloaded: 15-11-2011

- although the licensing of mining waste deposits has been the competence of the Mine Supervision since 2008, the competent District Mining Inspectorate did not check the structure of the disposal site for technological compliance, and **failed to enforce use of the best available technology** with regard to disposal (conversion to dry technology);
- none of the authorities substantially considered the **risk of a dam break**. When the privatization contract was concluded, IPPC and BAT requirements were not taken into consideration. Neither was compliance with these requirements subsequently enforced in an exhaustive manner by either the environmental or the construction authorities.”

Beside the failures of authorities, the **implementation of EU legislation** is imperfect as well. The company’s **liability insurance** did not extend to the damages caused to third parties and it was clearly declared that the insurance company would not pay for the aggrieved parties based on the contract bound with the MAL Co. Ltd.

According to Article 14 sub (1) of the ELD, Member States shall take measures to encourage the development of **financial security** instruments and markets to cover ELD-related liabilities.

The provisions of the ELD were **formally taken over** by Hungarian environmental legislation, when it called for providing proof of the deposit in regulations governing activities in the scope of environmental use defined in the Directive (waste management, activities based on the of hazardous materials and goods and mining activities linked to an integrated environmental permit) and some formal provisions also had been transposed in to the national mining law.

However, in Hungary the **mandatory financial security** scheme in regulation regarding to treatment of mine waste had not been introduced efficiently before the Kolontar accident.

Directive No. **2006/21/EC on the management of waste** from extractive industries and amending Directive 2004/35/EC was adopted on the 15th March of 2006. Article 14 lays down the base of financial guarantee. According to the regulation the competent authority shall, prior to the commencement of any operations involving the accumulation or deposit of extractive waste in a waste facility, require a financial guarantee (e.g. in the form of a **financial deposit**, including industry-sponsored mutual guarantee funds) or equivalent, in accordance with procedures to be decided by the Member States.

The calculation of the guarantee shall be made on the basis of **the likely environmental impact** of the waste facility, taking into account in particular the category of the waste facility, the characteristics of the waste and the future use of the rehabilitated land; the assumption that independent and suitably qualified third parties will assess and perform any rehabilitation work needed.

Hungary implemented Directive No. 2006/21/EC with amendments of the Act XLVIII of 1993 on mining activities and the Decree No. 14/2008 of the Ministry of Economy on treatment of mine waste. The latter regulation has been **meaningfully and significantly amended** – inter alia in addition to providing financial guarantees – after the accident in Kolontár.

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