Social Responsibility in Pollution: The Case of the Tisza River

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ON RESPONSIBILITY IN GENERAL

The notion of responsibility is, first of all, linked to the concept of norm, the breaking of which entails taking to task. If there is no norm, theoretically, we cannot speak of responsibility.[1] Norms provide men with a guideline about the forms of behaviour held desirable by society and about those attitudes which are rejected by it.

One must certainly distinguish between moral and legal norms. Modern society raises certain issues which traditional ethics considers to be neither good, nor bad. Hans Jonas claims that modern technology, which was previously considered neutral, proves to be pernicious for both the communities and the individuals on the long run, and this way, it can be considered bad.[2] The usage of DDT and of carbon-tetrachloride which damages the ozone layer is forbidden by law and such a banning is now common sense.

I try to interpret the concept of good and bad not on a traditional basis (religions, natural law or naturalism), but on the account of a thesis held by modern bioethics which links these terms to the survival of humanity. In these terms, good is what supports the survival of the human kind and bad is everything that restricts its survival.[3] It is now evident that it is possible to speak of the nature of responsibility at certain levels, varying from philosophy to justice, and each level has a raison d'être. A bio-ethical discourse is important because it draws attention to the fact that many modern phenomena are bad in themselves and this is reflected neither by social common sense, nor by legal regulation, yet. In what follows, I would like to use the example of the Baia Mare cyanide pollution to prove that in certain cases it would be necessary to formulate new ethical and legal norms.

THE POLLUTION FROM BAIA MARE

The turn of the millennium opened a black page in the chronicle of environmental protection in Hungary. On January 31st, 2000 the dam of an open cyanide retention pond used by the Australian-Romanian mining corporation Aurul, broke and a huge quantity of cyanide-laced water made its way into the stream Zazar and Lapos, from whence it flowed through the Szamos and Tisza rivers into the lower Danube. During its four week journey, the 150 km long toxic tide traveled a distance of 1950 km, flowing through Romania, Hungary, Yugoslavia, Bulgaria,and on into the Black Sea, devastating 1000 km of river ecosystems.[4]

Table 1: Changing of top concentration of cyanide.

Locality	*Date*	*Top concentration*
Baia Mare (Romania)	30. 01. 2000 .	7 800 mg/l cyanide
The Upper Szamos (Romania)	31. 01. 2000	400 mg/l cyanide
The Lower Szamos (Hungary)	1. 02. 2000.	32,6 mg/l cyanide
The Upper Tisza, (Csenger, H.)	3. 02. 2000.	13,5 mg/l cyanide
The Middle Tisza (Szolnok, H.)	9. 02. 2000.	3,2 mg/l cyanide
The Lower Tisza (Szeged, H)	11. 02. 2000.	2,2 mg/l cyanide
Border of Yugoslavia (R.Tisza)	11. 02. 2000.	1,49 mg/l cyanide
Beograd (R. Danube, Y)	13. 02. 2000.	0,139 mg/l cyanide
Border of Romania (R. Danube)	15. 02. 2000.	0,045 mg/l cyanide
The Delta of The Danube (Back Sea)	25-28. 02. 2000.	Under of Limit

The cyanide destroyed most of the fauna, from the Zazar to the lower Danube. The journey of poison brought death to thousands of fish which drifted on the icy rivers. According to the damage assessments, 1240 tons of fish were killed. All this was followed by a large flood as well as a number of other contamination events with heavy metal. People were shocked to watch a catastrophe unimaginable up to that time. They lit torches, they tolled bells for the dying rivers. Fishermen on the Tisza were left unemployed as a consequence of this disaster. Tourism decreased considerably. All in all, Hungary has suffered —according to its own figures —a damage of $107 million (29.37 billion HUF)— as a consequence of the cyanide pollution.[5]

The cyanide pollution shocked the European public. The EU established a committee to investigate the causes and the consequences and to find solutions. Experts of the EU, of the UNO environment program, of the WWF and of the Danube Committee, as well

as the representatives of Romania and Hungary were the members. According to the report, the accident was caused by mistakes in the design and the execution of the dam, but the control over the work of the company was not proper, either.[6] Bad weather promoted the catastrophe, but it could not have caused such a large-scale damage in itself, the experts concluded. The cyanide pollution has drawn attention to the fact that "the polluter pays" principle does not work automatically, only if it is established in a bilateral contract. The Hungarian government first strived to have the polluter AURUL shut down, but this attempt failed. The Hungarian public was shocked by the restart of the company from the summer of 2000.[7]

The Hungarian government also tried to identify other potential polluters. The EU suggested that the countries along the Tisza should produce their own list of environmental threats.[8] There are 40 dangerous companies in Romania only, 8 of which are classified extremely dangerous mining companies. Romania obviously has no intention and money to shut them down. Hungary has no means to arrange for the liquidation of these firms, so we dispose only of limited possibilities to create our own environmental security. This problem seems insolvable within the framework of traditional national sovereignty.[9] These outdated, dangerous plants are the traditional symbols of industrialisation and can cause an other catastrophe any time.

Hungary started two lawsuits. Private individuals want to claim $8,69 million (2.3 billion HUF), while the state is suing for 107 millió dollar (28.3 billion HUF) from the Romanian company.[10] According to the general practice, such lawsuits can last for two or three years in the first instance, then for another one or two years during the appeal for a higher court. A juridical decision isn't likely to be reached before a three to five years period at the earliest, which is too long for the victims of the disaster, so foreign investors should be bound to take a compulsory third-party insurance. This way, in case of a disaster the insurance company would be able to pay immediately to the victims. A further advantage of this solution would be that the insurance company could exert the necessary pressure on the companies to reduce the environmental dangers.

I think that the present system of world economy and international law has serious shortcomings if the "polluter pays principle" cannot be imposed in such an obvious situation. These shortcomings result from the system of the globalising world, present in every environmental problem. In assessing responsibility, modern law concentrates on individual units (Esmeralda, Aurul, the supervising environmental authority of the Romanian state, the creditor banks) or on the leaders of these units. On the other hand, it would be a mistake not to take notice of the responsibility of neo-liberal thinking and economic structure in environmental disasters.

LEGAL REGULATIONS ON MINE DUMPS

The idea of extracting gold and silver from the mine dumps cropped up following the fall of the communist regime in Romania. The idea was followed by an application promoting the building of a dump processing plant requiring an investment of 28.5 million dollars in 1995. After two years the tender was won against six other corporations by the Australian Esmeralda Exploration Limited, disposing of a capital of 13.6 million dollars. According to its own figures, the company invested 28.2 million dollars altogether into the gold production in Romania[11]. Together with the state-owned Remin (Compania Nationala a Metalelor Pretioase si Neferoase) mining company, the Esmeralda created the Aurul Ltd. The Esmeralda counted on a gold production of 480.000oz (13.6t) and a silver production of 2.2 million oz (62.37 t) in the mine in Baia Mare with the given technology.[12] The project calculated a profit of 7 million dollars, which meant a profit of 64 million dollars in 8 years. Considering that the investment was of 28.2 million (out of which 16 million came from a bank loan), the enterprise of the Esmeralda seemed very profi-table (35.8 million dollars).

The technology employed was characterised by two main features: on the one hand, the Australian investor brought considerable technology to Baia Mare, which they used indoors, but outdoors they used a money-saving technology which had several unacceptable sources of danger. During the extraction process the substance containing the cyanide was poured out into a big reservoir after the silver and the gold was extracted. The cyanide content of the 100 ha reservoir was so high that a bird couldn't fly over the pool as the cyanide vapours would kill it. The cyanide contents of the substance pouring out in the accident was 7800mg/l, while the acceptable value is 0.01 mg/l in Romania.[13] This means that the cyanide concentration in the reservoir was almost 1 million times higher than accepted. The walls of the cyanide retention pond were made of clay. Embankments made with a hydrotechnic method work like a sand

castle: they collapse under the slightest pressure. It is a highly profitable cheap technology.

The ecological disasters linked to gold rush could be avoided only by severe international regulations concerning the cyanide alkali technology. It should be stated, that at least the newly established companies and projects should not be allowed to keep water containing cyanide in their reservoirs. Mining companies should use a technology which would extract the cyanide inside the plant and they should pour only cyanide-free water into the reservoirs. The structure of the reservoir walls should be regulated as well, just like the working conditions and the method of processing. The operating company should develop a complete project for the case of liquidation which should include the conditions of environment rehabilitation and post-catastrophe care as well. Later on, this solution should be used not only in the case of newly built plant, but with already existing ones, too.

THE RISKS OF FOREIGN INVESTMENT

For poor countries foreign investment is often the only to get capital and advanced technology, so such an investment is obviously important and useful. At the same time, like any activity, this can also have harmful effects (the conservation of low wages, the exploitation of natural environment, the domestic capital's being pushed into the background, the appearance of a comprador bourgeoisie, etc.), so the maximisation of an exclusively foreign capital investment cannot be followed as positive cause.

Many environmental disasters prove that foreign investment into an under-developed region entails serious environmental risks.[14] First, the introduction of a highly effective technology to a new environment represents a factor of risk. (The Australians for examples did not consider the quantity of precipitation which is higher in Transylvania). Second, the companies invest into these under-developed regions precisely because they can make production cheaper due to the poorer environmental regulations. Third, the environmental authorities of the target countries, occasionally even the population disregard environmental aspects. This can be well documented in the case of the accident at Baia Mare.

THE RESPONSIBILITY OF THE BANKS

The investment was financed with 11.2 million dollars from the capital of the Aurul and from a 17 million bank loan from Rothschild in Britain and Dresdner Kleinwort Benson in Germany.[15] On the list of those who claim for financial damages, these banks occupy a much more important place than those who suffer environmental damages ("unfounded creditor"). Consequently, if the lawsuit ends with a verdict which will oblige the firm to pay for the damages, the creditor bank will come first on the list and the victims can recuperate their damages only if the firm has remaining money to cover it. This order is obviously based on the tacit preconception that the creditor bank holds no responsibility whatsoever for the activity of the firm it financed.

This situation is lawful, but it is by all means immoral and unfair, since under such conditions the creditor bank is able to finance a business with obvious environmental risks while assuming no responsibility of its own for the damages done. In this situation the bank is affected only by the financial risks of the loan (namely whether the financed firm disposes of sufficient funds to return the money), but the environmental risks are not of the bank's interests. Due to these, the creditor bank is interested in "pushing" the risks generally coming with a business, from the financial sphere over to the environmental sphere. And this comes naturally, since the bank has to suffer the financial risks and the local community has to suffer the environmental risks.

If we are to think in the terms of the principle of fairness, the bank should fall second on the list of claimants, behind the real victims. This small change in itself will make the creditor bank think twice if it comes to financing a business that is risky for the environment, and if an accident happens, this change will ensure that the real victims get their compensation first. Such a policy change will make the banks more interested in making the firms pay more attention to environmental questions. So the number of the catastrophes of this kind will fall.

THE RESPONSIBILITY OF THE RECEIVING STATE

The Romanian state was keenly interested in making the Aurul work with the highest possible output. First, by means of the Remin, the state was a share holder in the company and selling precious metal represented dollar income for the country. Second, the Aurul paid a 3% concession fee to the state. Third, the mine as an employer and tax-payer enjoyed the support of the local government and last, the mine was expected to clear away the polluted

mine dumps from its territory, which would have been a mile stone in the development of the town. Considering the underestimation of environmental aspects and the low technical level generally characterising Easter Europe, these special interests explain why the environmental authority of the state and of the region did not control the Aurul more severely, as it was stated in the Baia Mare report.[16] The question is whether the state (and the authorities) of a developing country is able to fulfil other (environmental, health care) duties under such a strong pressure.

Under the conditions existing in Baia Mare, no Western European state would have licensed the technology using cyanide. Even if the state had permitted such technology, the environmental organisations would have banned it. State-operated and civil environmentalists are able to exert considerable power together in a developed country, that's why in these countries gold is exploited in a close system and the settlement is done in silo-like cyanide towers.

As in a developing country, none of the agents (investor, receiving state, population) represents environmental interests, foreign investments always represent an increasing environmental risk and threat to the region. Moreover, there are more possibilities for corruption at the periphery, while the self-organising capacity of the civil society is weaker, so if we want to avoid such accidents, investments into the periphery should be controlled at an international level. The environmental risks can be reduced only if such a decrease is forced by stricter international agreements.

According to Jack Yvens, the director of the Australian Mining Policy Institute, the Esmeralda and Aurul used a technology in Romania which would not have been permitted in Australia. It should be stated as a general principle that no investor can use a technology abroad (especially not on the periphery) that was banned in its own country. If a company works abroad, it should observe those limits and requirements which should be observed at home. Such a restriction would prevent these companies from moving to the developing world for purposes of ecological exploitation and this would mean not only the protection of the periphery from ecological exploitation, but it would be advantageous for the centre as well, as it would prevent capital export.

MEDIATORS AND COMPRADORS

An other characteristic of the case is that the Australian capital found the proper mediator in one of the members of the Communist leadership, of the so-called nomenclature.[17] First the authorities didn't want to issue the permit, later the Aurul managed to obtain the necessary documents to operate with the help of Virgil Magureanu, the former leader of the Romanian Intelligence Agency.[18] This can explain the conspicuous generosity of the environmentalist authorities later.

This way, a part of the local elite will be interested in the maximisation of foreign invest-ments, independent of the long-term interests of the society or even against these interests. The appearance of such a mediator stratum is the prerequisite of any foreign investment and it can easily obtain an influential position, building its existence on the unscrupulous serving of foreign capital. The growing influence of this stratum is, at the same time, the interest of international capital. From this it follows, that the international capital will not take measures against these compradors, but on the contrary, it will be interested in making them rule. As the result of the close co-operation between these two interest groups, foreign investments, which would be useful and necessary in themselves, realise in a way that leads to the social and ecological exploitation of the region. This economic-social problem, which largely characterises this region, is completely unknown in the developed world - partly as international capital is insignificant in comparison with the domestic capital, and partly because the social environment, and the proper laws prevent companies from realising their own interests against national interests. It is not accidental that in developed countries lobbying is strictly regulated.

THE RESPONSIBILITY OF THE INDUSTRIAL SYSTEM OF VALUES

According to the ideology of industrial society, environmental damages are the unavoidable results of economic growth. According to such value system, environmental aspects come only second after economical interests. These values are decisive in the developing countries, especially in Eastern Europe. It is often argued that if the polluter companies are shut down, people will lose their jobs and social problems will increase, but such an argument is utterly unacceptable. We must, instead, use technologies which do not threaten human health and the right of people to have environmental security.

The post-industrial, post-material system of values are more and more widespread in the West,

though it cannot be considered a prevailing tendency, yet. According to this view, if we destroy the biosphere of the Earth, it will necessarily entail the death of mankind which is, by definition a crime against the human kind. Thinkers of bioethics formulate this idea in moral terms by saying that the survival of the human race represents the basis for the morally good, while the death of mankind represents the basis for the morally bad.[19] Consequently, any action that threatens this survival is bad, so environment pollution—for whatever reasons—is bad, a crime against mankind, and it should not be protected and supported, but banned and punished. In the conflict between nature and economy, a green system of values consider environmental interests very important, so industry is acceptable only if it harmonises with the laws of ecology and with the requirement of sustainability. In this view, the preservation of the natural-ecological structure of the Earth, that is, the protection of nature and the environment are the most important values.

THE RESPONSIBILITY OF NEO-LIBERAL THINKING

As the case of this pollution proves, the restrictive force of the invisible hand and of the market that has been so much emphasised by neo-liberal economics, do not in themselves ensure that such catastrophes be avoided. Neo-liberal ideology prevents the formulation of environmental norms while stressing the importance of market. Behind such an emphasis there lays the intention to validate capital interests unrestricted. This is, first of all, contrary to classical liberalism which has always attributed a significant role to the regulating power of the state. The present form of globalisation disintegrates the regulating power of the state, but does not replace it with another one and the result is the unrestricted rule and hegemony of the international capital, opposing the idea of a democratic society and a social market economy which has previously fought for the balance in power and interests successfully.

KEYWORDS Developing Region. Industrial System. Foreign Investment. Creditor Banks

ABSTRACT Hans Jonas caims that modern technology, which was previously considered neutral, proves to be prenicious for both the communities and the individuals on the long run, and so it can be considered bad. On January 31st, 2000 the dam of an open cyanide retenition pond used by the Austrailian-Romanian mining corporation Aurul broke in Baia Mare, in the north-western part of Romania, close to the Hungarian border. A huge quantity of cyanide polluted water made its way into the stream of Zazar, the Szamos and Tisza rivers into the Danube. During its four week journey, the 150 km long toxic tide travelled a distance of 1950 km, flowin through Romania, Hungary, Yugoslavia, Bulgaria, and on into the Black Sea, devastating 1000 km of river ecosystems. According to the damag assessments, 1240 tons of fish were killed. Fishermen on the Tisza were left unemployed as a consequence of this disaster. Tourism decreased considerably. All in all, Hungary has suffered - according to its own figures - a damage of $107 million (29.37 billion HUF) as a consequence of the cyanide pollution. The pollution at Baia Mare is a typical event of the global world. Behind this defective social-economic practice there are far-reaching causes. In this lecture I deal with some of them: the responsibility of (i) the foreign investment, (ii) the creditor banks, (iii) the receiving state, (iv) the mediators and compradors, (v) the industrial system of values and (vi) the neo-liberal thinking,

NOTES

This article is supported by OTKA T 037536

1 Földesi Tamás: *A politikai felel_sség dilemmái*: Rejtjel Kiadó Budapest, (2000) 13.o.
2 Jonas, Hans: *The Imperative of Responsibility, In Search of an Ethics for the Technological Age*, University of Chicago Press, Chicago and London.
3 Potter, V. R.: *Bioethics, Bridge to the Future.* Englewood Cliffs, NJ: Prentice-Hall, Inc., (1971).
4 *Tisza Cyanide Spill*. WWF Hungary Programme Office.
5 MTI Budapest, 07. 10. (2000).
6 BMTFR. *Report of International Task Force for Assessing The Baia Mare Accident*, UNEP/OCHA, December (2000).
7 HVG 14. 07. 2000. *Aranypróba. Újraindul a nagybányai Aurul*
8 Népszabadság 30. 10. p. 5 (2000).
9 Tóth I. János: *Environment protection and sovereignty*, Global Bioethics. Vol. 11., n. 1-4, pp.129-135 (1998)
10 Magyar Nemzet 8.09. *Újabb keresetek vidéken is* (2000)
11 Népszabadság 18. 02. p. 2. (2000)
12 Népszabadság 1. 02. p. 2. I presume that these data concern the quantity of the noble metal possibily extarctable. 1 ounce = 28,35 g.(2000)
13 BMTFR. *Report of International Task Force for Assessing The Baia Mare Accident*, UNEP/OCHA, December (2000).
14 Japan 1978, South Africa 1994, *Guyana 1995*; Philippines 1995, Romania 1998, Kyrgisztan 1998, Philippines 1998, Web:http://mpi.org.au, (2000. 03. 21.)
15 Vasárnapi Mai Nap 14. 05. *Vizválasztó* // Világgazdaság 15. 05. 2000. *Aurul környezetvédelmi vállalkozás?* (2000)
16 *Cián szennyezés Baia Mare-n*, June, REC. (2000)
17 Karatson Gábor: Haldokló folyó (dying River) in Bognár Antal (ed) Sír a Tisza (The Tisza is Crying), Masszi Kiadó, 2000 pp. 26-27
18 Ráduly János, S: *Nagybányai látlelet*. HVG, 19. 02. 2000. C.f. József Szaniszló, the deputy mayor of Nagybánya.
19 Potter, V. R. *Bioethics, Bridge to the Future*. Englewood Cliffs, NJ: Prentice-Hall, Inc., 1971.

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