

Aspects regarding the Romanian law in the field of ecological restoration of the industrially contaminated sites

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Abstract

Ecological restoration of the industrially contaminated sites from Romania starts to become an important problematic fact due to the large land surfaces affected. These surfaces are usually placed in the path of urban development or in key points of urban areas and continue to affect the quality of life, environment and health of the population living in the neighboring areas. The Romanian law regarding the management of the contaminated sites is in inchoative state, transposing partially the European law which is as well unclear. Due to the lack of a clear legislative path, the funding for ecological restoration of the contaminated sites is limited. The issue of ownership over these sites is also an aggravating factor in the restoration process and reinsertion of these surfaces in the functional circuit.

Keywords: contaminated sites, ecological restoration, legislation

Introduction

The paper presents the actual situation of the Romanian legislation in the field of ecological restoration. As a member of the European Union since 2007, Romania has the responsibility of transposing the European frame legislation into applicable national laws. Regarding the legislation referring to the ecologically affected sites, there is a major break in the national laws but also in the frame base legislation of the EU. The paper presents a review over the national Romanian legislation in the field environment protection and especially regarding ecological restoration of the industrial sites, compared

with the legislative tendencies worldwide and from the EU.

The amplitude of human activity became so extended so most of the world's ecosystems were disturbed in some measure. (Ehrlich, 1993). The character of the impact over the environmental factors can be various, related to the generative factors and the intensity of the activity, the character and toxicity of the elements resulted from the processes and the transition vector through the natural environment. From the variety of the industrial processes which generates impact over the environment, the mining industry has a significant impact

related the variety of the ways in which the environmental factors are affected.

The global production of metals is in continuous rise in order to satisfy the general rising tendency and request of the industrial branches to accomplish the market request. Rising of the metal production involves an unavoidable raise of mineral processing, of a lower quality and from larger and larger mines and quarries with consequences materialized in larger quantities of waste and a greater impact over the environment by occupying larger land surfaces. (Cooke & Johnson, 2002). Without a specific legislation in the field of environment protection there is a risk that these emissions and waste deposits to rise uncontrollably with a disastrous impact over the environment.

Worldwide and European tendencies in ecological restoration

The necessity to create an inventory of industrially contaminated sites worldwide was observed at the beginning of the 70's when due to some legal factors in the transaction process, a series of problems appeared regarding the acquisition of contaminated sites. (Okubo & Yagi, 1998). Due to this catalyst a series of rules appeared which later were transposed in legislative acts adjusted to the legal basis of each country regarding the contamination of soil and the possibility of application of some rehabilitation measures.

Legal measures appeared first time in the industrialized countries with a major economic power. The countries in development copied later the imposed measures, but with difficulties or even unsuccessfully in applying of the corrective measure due to the economic condition or submission of environmental problems to the economic interest. (Brandon, 2013).

Even if in some developing countries the contaminated sites affect the health of the population on a large scale, there is a lack of interest and recognition regarding the necessity of implementation of a national legislation. These events are considered isolated, more of a local problem and non-repeatable in other locations from the country. (Brandon, 2013).

In Europe the contaminated sites are primarily associated with activities related to waste deposits, mineral processing, oil industry and nuclear energetic industry. (Panagos, *et al.*, 2013).

The rise of life quality, industrialization of regions which own important strategic resources and the economic prosperity from the last decades led to an imminent rise of the quantity of eliminated waste. According to Eurostat, at the level of the EU in 2014 was disposed a quantity of 2.503 billion tons of waste from which 95 million tons was classified as dangerous waste. (Eurostat, 2014).

In the European Union, at this moment only a few states have implemented a functional legislation of soil protection. The soil is not the subject of a series of comprehensive and coherent rules at the level of the Union. The existing politics in the field of agriculture, water, waste, chemicals and IPPC contribute indirectly to the soil protection. But, due to the fact that these politics have their own reason, directly correlated to the field of

application, there legislative measures are not sufficient to assure a level of protection to all soils from Europe and not applicable to historically contaminated sites. (EC, 2018).

Improper use of soil compromise constantly the domestic biodiversity and the objectives established regarding the climate change in the European Union. Due to these reasons the European Commission adopted the Soil Thematic Strategy (COM (2006) 231) in September 2006 with the objective of soil protection from the EU. In May 2014 the EC decided to withdraw the Soil protection Directive and the 7th Program of action for Environment Protection which were applied earlier in 2014. With these measures it became clear that soil degradation represents an important problematic in the EU. It is proposed that until 2020 a series of legislative measures to be implemented regarding the reasonable use of the soils from the EU and also to encourage the member states to implement national programs and raise the effort to reduce soil erosion, to raise the level of organic matter in soils and to support ecological restoration of industrially affected sites. (EC, 2018).

In Europe, until 2011 were identified a total of 1.17 million potentially contaminated sites. From these, approximately 10%, meaning 127 000 sites were confirmed as being contaminated. Regarding the ecological restoration on these sites, approximately 58 000 were ecologically restored in the 33 member states which participated to a study regarding the inventory of industrially contaminated sites from the EU. (Panagos, *et al.*, 2013).

Romanian legislation regarding the management of contaminated sites

Following the adherence to the European Union in 2007, Romania made considerable efforts to align the national legislation to the European framework legislation. Regarding the legislation in the field of environment protection Romania has a history of over 40 years. The first environment protection law was enacted in 1973 due to the Declaration of the United Nations Conference on the Human Environment from Stockholm of which Romania was a signatory state.

At that moment, when this law was enacted there was no specific methodology of environmental impact assessment of the economic objectives or of the investment projects and there was no clear understanding of how ecologic considerations can affect the process of decision over these investments. (Coman, 2006). Soil quality protection, due to the direct effect over quality of life, developed a major interest in the following years, fact that led to rapid enactment of a series of legislation acts which regulated the quality of this environmental factor. An important step in the frame of soil quality protection was the enactment of the Ministry Order no. 756/1997 for approval of the Regulation regarding the environmental pollution assessment which regulates the maximal concentrations of pollutants in the soil for a large number of chemical compounds.

The interest for the ecological restoration of the contaminated sites, affected by the industrial activity appeared much later and due to a series of unfortunate

and disastrous events, generically known as ecological accidents or disasters, as the one at the "Aurul" tailings pond from Baia Mare, which drawn attention over the potentially devastating effect of these sites over the environment and over general population health.

In this context in 2007 were enacted the Government Decision no 1408/2007 regarding the modalities of assessment of soils and subsoils and Government Decision no 1403/2007 regarding the reconstruction of the areas in which soil, subsoil and the terrestrial ecosystems were affected. These two Government Decisions, along with the Law no. 84/2006 which approves the Government Emergency Ordinance 152/2005 regarding the Integrated Pollution Prevention Control represents the starting line of the ecological restoration in Romania and establish clear lines regarding the responsibilities assigned to polluters and the measures to reduce industrial pollution, respectively the introduction of the principle of "the polluter pays" in a clear legislative manner.

In 2015 was elaborated the National Strategy and the National Plan of Action for Contaminated Site Management from Romania approved by Government Decision no 683/2015. This document is based on real investigations made by Environment Protection County Agencies, Regional Agencies and National Agency over the inventory and description of the contaminated sites from Romania. This document offers a perspective over the management of these sites and opens a path towards the ecological restoration of industrially contaminated areas.

The Strategy presents that in Romania were identified a number of 1682 of sites from which 395 are potentially contaminated and 1287 are declared and documented as contaminated.

Conclusion

It is clearly observable that at the global level the industrially contaminated sites start to create a serious issue due to their direct influence over the health of human population. The interests mostly come from the organizations involved in the environment protection or in the human rights and health protection.

National legislations regarding the ecological restoration of the industrially contaminated sites are rarely identified worldwide. Even at the level of the EU a clear frame legislation regarding the management of the contaminated sites isn't applied.

In Romania, a strongly industrialized country in the past, due to the reform of the economy a large number of contaminated sites endangers the life of the population every day and stay in the path of urban development.

The necessity of a clear legislation in the field is strongly required, along with methodologies applicable for the management and ecological restoration of these sites.

Management of contaminated sites in Romania became recently a strategic problematic of the municipalities. Old factories and industrial sites, most of them abandoned or in process of litigation, which in the past was located at the edge of the cities, now stand in the way of urban development.

Most of these sites become embedded by the city in its expansion and became a serious risk for life quality due to the fact that these areas cannot be restored or managed because of property manners or lack of legislative manners for intervention and ecological security.

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