AGRICULTURE AND POLLUTION

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1. Introduction

The Romanian countryside is characterised by natural resources that are, generally, in a good state of preservation, with a high level of biodiversity associated to a diversity of habitats, ecosystems, forests and valuable landscapes but, at the same time, the future brings important challenges: maintaining these natural values and mitigating climate changes.

Romania's territory consists of three types of relief, in relatively equal proportion – plains, hills and mountains, with a high level of paedo-climatic and geographic diversity.

Romania has a diverse natural environment which integrates many rural areas, generally characterized by well-preserved natural soil and water resources, traditional landscapes and a remarkable biological diversity. Also, Romania has a unique natural heritage, mainly represented by the Carpathian Mountains (65% of the Carpathian eco-region), as well as by one of the most important wetlands in Europe, the Danube Delta (the second largest delta in Europe). It is estimated that natural and semi-natural ecosystems account for 47% of the entire national territory and 52 distinctive eco-regions have been identified.

It is worth mentioning that 30% of European population of large carnivores and about 300,000 ha of virgin forests are also to be found in Romania. The Carpathian Mountains and the Danube Delta host many endemic species, including several of Community interest. The diversity of species and habitats and the variety of traditional rural landscapes resulted from the restructuring of agriculture (in which over the past 16 years was transferred from a limited number of very large commercial farms to millions of small family households), from the return to more traditional types of agriculture and implicitly to more extensive practices.

On the other hand, although there was an overall extensive trend, and low use of chemical products in agriculture, some farmlands had been affected by improper use of chemical fertilisers and pesticides, by irrigations, draining operations, or by

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applying inadequate mechanical work, reasons for which the environment components (especially soil and water), were seriously damaged on reduced surfaces.

Furthermore, the abandonment of farmland and the use of unsuitable farming practices, which occurred due to ignorance or limited financial resources, had a negative influence upon biodiversity and determined the occurrence or accentuation of soil erosion. The decrease in livestock led to the abandonment of grazing, causing the degradation of large areas of grassland due to the occurrence of ecological progression characterised by the encroachment of many invasive species.

Thus, in Romania, abandonment affects especially: the traditional grazing areas – lately also as a consequence of a sudden obtrusion of the sanitary-veterinary standards that affect those grazing systems viability, the arable land – especially in lowland areas that lack humidity and functional irrigation systems, areas with high level of poverty, characterised also by a high emigration rate and areas bordering the big towns – where some farmland is usually removed from the agricultural circuit in order to subsequently be included in development projects for the residential or commercial areas. At the same time, the sustained economic growth over the past seven consecutive years now threatens many species of plants and animals through intensification of farming, leading to deterioration of the natural resources and the modification of the rural landscape.

2. Less Favoured Areas (LFA) for Agricultural Activities

Large areas of Romania are characterized by natural limitations of agricultural production. These areas are related especially to the Carpathian Mountains and Danube Delta, but also to other areas with soil and climate specificities. These Less Favoured Areas for agricultural production are generally associated with a high level of biodiversity.

Romania holds large areas that can be considered less favoured (according to Regulation (EC) no.1257/1999), due to unfavourable natural conditions that considerably limit the use of farmland and thus lead to lower yields. The Carpathian Mountains are especially notable among those – with high altitudes and high-angle slopes, as well as the Danube Delta – an area that presents an accumulation of climate and soils restrictive factors that limit agricultural activity, and other areas – more compact in South-East Romania and more scattered in the Moldavia Plateau, Oltenia (both plains and hilly areas), Transylvanian Plateau – where natural specific conditions lead to lower natural yields.

3. Biodiversity Conservation on Farmland

Although in Romania's case (even at European level) there is little experience in using this concept, an important step forward was made in order to

identify the farm land of high natural value, using to this purpose certain methods provided by the current research. The intention was to identify the areas characterised by affluent presence of semi-natural grassland, generally associated with the existence of a high diversity of species and habitats. The result of the classification shows that for the time being about 2.4 million hectares of semi-natural grasslands can be classified as farmland of high natural value.

Semi-natural grasslands represent the most valuable ecosystems of the farmland surfaces. However the abandonment occurring in some regions of the country of traditional-type agricultural activities (grass mowing, grazing) is leading to a degradation of habitats and to landscape modifications. In particular, there is a tendency in mountain areas to abandon agricultural activities on semi-natural meadows. At the same time, in other regions of the country, the meadows are threatened by intensive agriculture where consolidated farmland exerts pressure on the environment, especially on the biodiversity.

3.1. Agro-biodiversity

Romania has an important genetic basis, in point of both crop variety and domestic animals, with a close connection with the traditional agro-systems.

Regarding agro-biodiversity, Romania is one of few European countries where traditional agro-systems represent significant pools which preserve the genetic diversity of crop plants and animals at the place of formation and development (i.e. *in situ*).

Regarding genetic diversity, Romania is interested to preserve certain rare local species indigenous to specific regions which are in danger of being lost to farming. The catalogue of breeding mammals includes 79 species (out of which 26 are still active, 19 are endangered and 34 are extinct). It is noteworthy that many local species (țurcana, țigaia, Carpathian Goat etc.) have a reproduction system in local communities (reproductive isolation in a certain area, but are without a genealogic registry and official control of production, the selection being done by the owner). With regard to plant varieties there are also many local endangered species distributed within several regions. Within this, orchards are of key importance.

3.2. Organic Farming

Organic farming has the potential to significantly contribute to the protection of the water and soil resources, conservation of biodiversity and mitigating climate changes, thus offering public goods and meanwhile serving a European market in full development.

Although there is no synthetic information regarding the domestic demand, it can be estimated that this had an important contribution to the overall growth of the sector, together with the already existing demand on the European market.

However, a relatively young domestic market presents a higher degree of risk for the farmers who practice environment-friendly production methods, and this can be noticed in long-term price fluctuations, thus leading to potential ins/outs from the above-mentioned system.

The operators number of organic farms registered with the Ministry of Agriculture and Rural Development in 2005 was 2,920. Inspection of the entire production chain and certification of the organic products is carried out by private control bodies, accredited by a certified body to this purpose and approved by the Ministry of Agriculture and Rural Development. The list of the oversight bodies authorised to inspect and certify organic agro-food products on Romania's territory in 2007 is published in O.J. of European Union no.35 of 19/02/2007.

Agriculture can also negatively impact air quality through emissions of various nitrogen compounds including nitrous oxides and ammonia. These generate important changes in the concentration of greenhouse gases, resulting mainly from the decay of chemical fertilizers and the combustion of biomass. The most significant emissions of ammonia come from intensive livestock farming and from the inappropriate use of organic fertilisers. Agriculture accounts for approximately 80% of ammonia emissions in Romania. When excess ammonia is re-deposited in the soil, it has an acidizing effect that can damage plant and animal life.

3.3. Forestry

Forest development and management should become an important element of the national flood prevention strategy. Forests can play a higher role in stabilising water flows, in ensuring water quality and the protection of water sources with a unique character for local communities that have no alternative water resources. This is the case of the forests situated in the protection perimeter of underground or barrier water resources, as well as of forests located on the flanks of natural and artificial lakes.

Forests play an important role in securing soil stability, including the control of soil erosion, landslides or avalanches. Forestation with native tree species will be directed primarily toward farmland with erosion problems and high risk of landslides.

4. The Legal Concept of the Principle

Currently, the general principles of environment law enacted in Romania have the same goals as the rules of international and European environmental law. This corresponds, on the one hand, to the imperative of improving, at the global scale, the rules concerning environment protection and sustainable development and, on the other hand, in response to the fundamental need for regulations and

especially to consolidate the legal requirements concerning the legally protected environment elements and factors, currently extremely scattered.

It seems clear that the "essential" principles of environment law, namely: the prevention principle, the precautionary principle and finally the polluter-pays principle all apply in other fields of law as well. Under European law, they must be integrated in other areas too, including agriculture.[1]

Therefore, concerning the general principles and rules that allow their application, insofar as those are general or framework rules, the other fields of law could incorporate them in their own specificity and thus prevent them from being violated. Before examining the application of the polluter-pays principle in agriculture, the concept of the principle itself must be examined from a legal point of view.

Therefore, the concept of principle has the tendency, in national law and especially in international law, to be used in an artificial sense, mainly because the States do not wish to get legally involved, in the sense of enacting mandatory rules. This could be an explanation for the weaknesses – frequently aggravated – of a "law" that cannot be characterized as having mandatory principles (a sentence without meaning), but especially in using, in case of infringement of a legal imperative, constraining or sanction measures.

The reasons for such a situation go beyond the scope of a legal phenomenon and consequently will not be discussed here. It is important to note, however, that while the creation of a legal order in the field of environment protection is part of the future, the consensus between States about the imminent danger that menaces humanity as a result of the continuous environment degradation has a vital importance.

To go beyond this idea of a consensus – which has its origin in the axiology of cooperation and collaboration between States – presupposes a preliminary solution concerning political and especially economic difficulties.

5. The Regulatory Character of the Principle

In the field of law, a principle can be:

- a piece of regulation or a general rule, but *without a legal character*, like the principle of sovereignty of States or the principle of cooperation, or
- a legal rule – established by a legal text or not – which is general enough in character to be applicable in a wide manner and to be imposed with generally-accepted authority (when it does not have the value of a rule).

Consequently a principle, with or without legal character, in a direct or indirect manner, has primarily the aspect of a regulation. It demands or presupposes a certain conduct on the part of the legal subject concerned.[2]

[1] See M. Uliescu *"La pénétration du droit de l'environnement dans le domaine du droit rural"*, National Report, XVIIIth Rural Law Congress, Oxford, September 1995.

[2] For example, the principle of sovereignty and the principle of cooperation between States do not have a legal character in themselves, but presuppose the obligation of not doing anything against

Having in mind these considerations, it can be said that, no matter what legal value the environmental principles might have, (that is to say, whatever the binding force that ensures their applicability), those principles rely on the positive principle of the law, which is a regulation explicitly stated in a positive legal text.

6. The Polluter-Pays Principle

The polluter-pays principle has its origin in the economic theory of A.C. Pigou[3] who considered that the external costs, either positive or negative, arising from a polluting activity should be "internalized" into the price of the goods or services in question, by charging the responsible polluter. Consequently, the internalization will be complete when the polluter is held responsible for all the costs of the pollution and will remain incomplete while it is the community that bears some of those costs.

In time, the polluter-pays principle moved from theory to practice by becoming a frame of reference for law-makers.

6.1. The Polluter-Pays Principle in International Law

Certainly, the polluter-pays principle is a classic principle of international law. Probably the first text that stated that the costs caused by pollution should be borne by the polluters was the OCDE Recommendation of 1972[4]. Some authors[5] denounced the relative ambiguity of the principle as a possibility "to pay in order to destroy", but also considered its advantage as a driver. The principle was originally stated in the First Environment Action Programme (1973 -1976) and it promoted the idea that the polluter would normally be responsible for the costs occasioned by the prevention and control of damage. The Recommendation 75/436/Euratom,

the will of a State or without its approval. In this case, it refers to the obligation of the States to coordinate their efforts in achieving a certain goal, for example environmental protection.

[3] A.C. Pigou, *The economics of welfare,* 2nd Edition, London, 1924.

[4]Recommendation of the Council on Guiding Principles Concerning International Economic Aspects of Environmental Policies' (1972) Doc C (72)128 reprinted in 11 ILM 1172 (1972). This recommendation introduced the idea that the polluter should bear the costs of prevention and pollution prevention measures established by public authorities in order to maintain an acceptable state of the environment. The costs of those measures should have effects on goods and services that have generated pollution. This kind of measures should by no means be accompanied by subsidies likely to create competition distortions. A second OCDE recommendation admitted certain exceptions from those principles, specifying that the help given polluters (in the form of subsidies, financial advantages and other measures) was incompatible with the polluter-pays principle no matter whether is selective, limited for transitory periods, or for regional situations. 'Council Recommendation on the Implementation of the Polluter-Pays Principle' (1974) Doc C(74)223, reprinted in (1975) 14 ILM 234.

[5] Martine Remond-Gouilloud, *Du droit de detruire,* PUF, Les voies du droit, 1989, p.161-168.

ECSC, EEC of 1975 regarding cost allocation and action by public authorities on environment matters explains the procedures for applying the polluter-pays principle. It defines the polluter as whoever "directly or indirectly damages the environment or who creates conditions leading to such damage". The Recommendation distinguishes, as instruments for putting into effect the principle, certain standards and charges. The *standards* can relate to environment quality, procedures and products and are policy measures with no direct link to the theory of externalities, while the *changes* implement the theory of externalities by including any type of financial instrument that requires the polluter to assume his share of the costs in controlling the pollution he has caused.

Latter on, the principle was taken up in all Environment Action Programmes and also in the secondary European Community legislation[6]. A concrete implementation of the principle came along with the Directive 1999/31/EC on landfills, which requires that the costs of waste disposal include all operation costs, including financial guarantees and restoration of the site once it ceases to be used for disposal. Therefore, in this act a complete internalization is put in place for all costs relating to management and control of a landfill in the price charged for waste disposal.

The principle is found in the preamble to certain conventions like the Athens Protocol for the Protection of the Mediterranean Sea against Pollution from Land Based Sources and Activities (1980), the Helsinki Convention on the Trans-border Effects of Industrial Accidents (1992) or the Lugano Convention on Civil Liability for Damage Resulting from Activities that are Hazardous for the Environment.

On the other hand, the principle can be found in the operational provisions of certain conventions, which makes it binding[7]: ASEAN Agreement on the Conservation of Nature and Natural Resources (1985)[8], the Helsinki Convention on the Protection and Use of Trans-border Watercourses and International Lakes[9] etc.

Ecological taxation is difficult at an international level mainly because the international community does not enjoy the concept of a practical understanding of this principle, with very small exceptions[10]. Nevertheless, the polluter-pays principle has a significant influence on national regulations and many States, especially from the European Union, have recognized it as a regulation of environment policy[11].

[6] Fifth Environmental Action Programme, (COM)92 23 final – Vol.II, 25,68; Directive 75/439/EEC on the disposal of waste oils, Directive 94/62/EC on packaging and packaging waste, etc.

[7] See Nicolas de Sadeleer, *Environmental Principles, From Political Slogans to Legal Rules,* Oxford University Press, 2002, p.23

[8] Article 10, paragraph d.

[9] Article 2.5, paragraph d.

[10] Signing the Kyoto Protocol concerning the emissions of greenhouse gases, in 1997, is the first step towards a rational use of mainly economic instruments.

[11] France recognised the principle in Article L 100-1 of the Environment Code; Belgium recognised the principle in Article 1.2.1 of the Flemish Act in 1995 and in Article 4 of the Federal Act in 1999.

6.2. The Polluter-Pays Principle in Romanian Law

The polluter-pays principle is recognized in the Framework Law for the Protection of the Environment, Government Emergency Ordinance no. 195/2005[12]. It is stated there, together with other principles and strategic elements, in Article 3.

The first line of this Article states the principle of integrating environment policies into other sectoral policies. The legal character of this principle seems doubtful, even though the integration of environment policies in other sectoral policies remains an undeniable necessity – especially concerning agriculture.

The principles are listed in a logical order: the precautionary principle is followed by those of preventive action, the polluter-pays, and conservation of biodiversity and of specific ecosystems. There are also other strategic elements: for example, utilization of natural resources, information and participation of the public in decision-making, public access to information about the environment, and development of international cooperation in the field of environment.

The next Article (Art. 4) specifies the methods for applying these principles. Among such methods are the prevention and integrated control of pollution, especially by using the best available techniques to manage activities with a significant impact on the environment; the implementation of development programs, by complying with environmental policies; the implementation of both stimulating and restraining economic instruments; the national system of integrated environmental monitoring; the improvement of environment quality; the rehabilitation of areas affected by pollution; the education and increasing awareness of the public in this field; the strict control of genetically-modified organisms; the elimination of products liable to affect human health; and finally, the need to promote a harmonized legislation in accordance with the European and international environment rules.

The majority of these methods as established in the Framework Law are stipulated in detail in secondary legislation, which makes it possible to comply with and apply the principles.

The methods stated above were selected and brought to light especially by taking into account the practical meaning of the polluter-pays principle in all fields of activity, including agriculture.

The polluter-pays principle, as it was established at the 1992 Rio Conference and incorporated into Agenda 21[13] and the Rio Declaration[14] and by European

[12] Government Emergency Ordinance no. 195/2005, published in the Official Journal no. 1196/30.12.2005, approved by Law no. 265/2006, published in the Official Journal no. 586/06.07.2006 repealed the old environment protection framework law no. 137/29.12.1995. The polluter-pays principle was stated in the old environment framework law, in Article 3, paragraph d and is restated in the new framework law, in Article 3, paragraph e.

[13] Paragraphs 30.3 and 2.14.

[14] Rio Declaration on Environment and Development' UN Conference on Environment and Development (June 14 1992) UN Doc A/CONF151/5, Principle 16: *National authorities should*

Community law[15], means that national authorities should make all the necessary efforts to internalize the costs of protecting the environment. National authorities should use economic instruments, taking into account the idea that the polluter is the one who should ultimately bear the costs of polluting. The public interest should be considered, but without affecting international investments.[16] It is clear, in Romania, that applying this principle raises complex economic and legal issues, to which other issues can be added, both political and scientific.

It must be also noted that if this principle stated the simple obligation of the person to repair concrete damage it brought to the environment, the principle would state a legal axiom that has no legal value of its own. In effect, in its broader sense, this principle aims to charge the polluter for the particular cost of the pollution they caused. Nevertheless, in a narrower sense[17], the principle refers to the polluter's obligation to bear the costs of the pollution control. This corresponds particularly to a partial "internalization", which entitles the government to collect certain taxes and fees from polluters in order to limit the effects of pollution they are responsible for. This approach means that the public does not bear all the costs of pollution.

Proper understanding of the principle needs a clarification. It must be seen that, in the system instated by this principle, subsidies granted by the State to help polluters invest in pollution prevention measures go against the polluter-pays principle[18]. The principle started to find its normal course in Romanian law, its fundamental significance being expressed, as mentioned above, in introducing both stimulating and restraining economic instruments, in creating antipollution rules and standards (Article 4, paragraph f, Environmental Emergency Ordinance no. 195/2005) and in creating a special liability regime for environment damage: the objective character of the liability, independent of fault, and joint liability in the case of multiple authors (Article 80 of the same law).

Concerning the regulation of the polluter-pays principle in the Framework Law on the Protection of the Environment, mentioned above, that law allows the

endeavour to promote the internalization of environment costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the costs of pollution, with due regard to the public interest and without distorting international trade and investment".

[15] At European level, the principle was stated in the Single European Act (SEA) in 1987 and the Maastricht Treaty (1993).

[16] Michel Prieur *Droit de l'environment*, Paris, Précis Dalloz, 5-e Edition, 2004, p. 145-153.

[17]This is the approach of the OECD and former EEC.

[18]In the European Communities, in the Third Environmental Action Program, [1983] OJ C46/1, the polluter pays principle takes the shape of a strategy for a better utilization of resources. The fact of requiring the polluter to bear the costs of environment protection – implied by the principle – drives polluters to reduce pollution generated by their activities and to seek less-polluting products or technologies, which are essential for creating no competition distortions. Noticing that this kind of task could, in certain cases, pose difficulties for existing factories, it was accepted, in 1974 and 1980, that the Member States grant, in certain conditions and until 1987, financial support with the goal of facilitating the introduction of new rules for better environmental protection. The Single European Act in 1986 stated the principle in Article 130, R.6.

application of the principle in all sectoral fields by taking into account the importance of environmental protection and secondary legislation which concerns the principle. Unfortunately, the polluter-pays principle remains an easy way of financing environment policies rather than a mandatory legal instrument, which should force the polluter to pay for its actions. Without clearly stated individual liability, the only consequence of the principle is that some industries bear the entire liability and costs of combating pollution[19].

7. The Environmental Fund

In 1989, the practice of creating special funds for financial support of environmental-friendly activities increased rapidly in the Central and Eastern European States. Some of them established a Western financial aid by converting their foreign debt towards certain developed countries into funding for environmental investments or grants or other manner of external aid, like the *Eco-Fund* in Poland, which was formed by the conversion of its foreign debt towards the USA, a grant for the government of Norway, the *Eco-Fund* in Bulgaria, a grant from the World Bank etc.[20] In parallel with these experiences, permanent environment funds were formed, which received money mainly from national sources.

The establishment of a special Environment Fund was introduced in Romania by Law no. 73/2000, repealed by Government Emergency Ordinance no. 196/2005[21] and represents an economic and financial instrument intended to support priority measures for environment protection. It is an application of the polluter-pays principle, responding to its demands, as stated in the considerations mentioned above. The unification of financial efforts by all polluters, both present and future, in order to prevent and minimise pollution of the air, water and soil through rational waste management, biodiversity conservation, education and understanding the importance of a healthy environment by the public, ecological reconstruction, etc., can and must have concrete results.[22] The Environmental Fund has the purpose of financing projects that have the targets below.

The financial resources of the Fund come from:

– 3% contribution from income derived from selling scrap iron, by the owners of such resources. The money is collected at the source by the economic operators, authorized in this sense according to the legislation

[19] Mircea Duțu, *Environment Law Treaty,* Bucharest, Ed. C.H. Beck, 2007, p. 242-244.

[20] In Romania, the fact that such a fund does not exist is probably explained by the historical moment at that time, when it was a country without any foreign debts.

[21] Government Emergency Ordinance no. 196/22.12.2005, published in the O.J. no.1196/30.12.2005 concerning the environmental fund, approved through Law no.105/2006, published in O.J. no.586/06.07.2006.

[22] Ibid Art 13.

concerning the management of industrial recyclable waste; the operators must deposit it with the Environmental Fund;
- duties on emissions in the atmosphere;
- duties on economic operators who are using new landfills;
- a duty of 1 RON[23]/kg of packaging introduced on the national market by manufacturers or importers of packaged goods;
- a contribution of 2% from the value of substances classified by environmental regulations as hazardous and introduced on the market by manufacturers and importers, with the exception of those used for medical purposes;
- a contribution of 3% from the amounts collected annually for managing the hunting funds, paid by the manager of the hunting fund;
- donations, sponsorships, financial assistance from individuals or legal entities and international organizations;
- duties from environmental authorizations, penalties, etc.

Usually, those amounts are used for projects, such as: preventing pollution, reducing the impact on the atmosphere, water and soil, reducing the levels of noise, using clean technologies, waste management, protecting water sources, conserving biodiversity, public education and information, emissions reduction etc.

8. The Land Fund

Under the Land Law[24] there are funds for both conservation and improvement of "extra muros" (non-urban) terrains (the land amelioration fund). Article 92 of the Land Law strictly forbids erecting a structure of any type on: high-quality agricultural land located outside localities; terrain that includes land-amelioration works; land planted with vineyards and orchards; national parks; monuments; archaeological and historical sites. The only exception from this paragraph concerns farming and military structures, highways, electrical lines, works for gas and oil exploitation and water management works. Final removal from the agricultural and forestry circuit of high quality non-urban terrain, of terrain that includes land-amelioration works and land planted with vineyards and orchards, though the widening of city territory is done based on a proposal by the local authorities. Final removal from the agricultural and forestry circuit of high quality non-urban terrain is accepted only if the interested person pays a certain fee to the Land Fund, an amount that shall remain at the disposal of the Ministry of Agriculture, Forests and Rural Development[25] and the Ministry for the Environment

[23] RON: Romanian currency.

[24] Land Law no.18/1991 with its subsequent modifications, republished in O.J. no. 1/05.01.1998.

[25] Currently Ministry of Agriculture and Rural Development, established by Government Decision no. 385/2007, published in the O.J. no. 282/27.04.2007.

and Water Management[26]. Its purpose is to ensure necessary funds for research, projection and execution of projects of improving and developing polluted and degraded soils, located in the improvement perimeters.

Unlike the Environmental Fund, the Land Fund is established with a larger contribution. Its resources include:

- Budget appropriations and contributions from local administrative authorities (districts, municipalities, cities, villages) and also from land owners who derive a direct or indirect benefit from the amelioration works or from commercial entities and autonomous administrations whose activities benefit from the Fund.
- Contributions from individuals and legal entities whose harmful activities are the cause of soil degradation or pollution which result in loss of production on farmland[27].

Therefore, the law establishes that land owners, mayors and other authorities are entitled to require that the party at fault bear the costs for the restoration and improvement of damaged soils. The law also establishes, as a resource for the land amelioration fund, fees to be paid for taking land out of agricultural production, either temporarily or permanently.

Concerning the establishment and administration of those funds, the law sets out at least two of their functions: prevention and reduction of pollution or financing environment restoration projects needed to repair damage caused by activities with a significant environment impact.

If, at the end of the year, unused money remains in the fund, it will be carried over into the next year and used for the same destination[28].

Concerning temporary removal of fields from farm and forestry production, the operator is also under an obligation to make a money deposit, equal with the tax for final removal of land from agricultural and forestry production, in a special account of the Land Fund. If the operator does not perform the quality works by the date specified in the authorization, the agricultural or forestry authority will take control of the works using money from this special account. Finally, if the operator does not perform the works by a further deadline and at the level of quality required by the agricultural or forestry authority, the entire deposit will be seized and made available to the Land Fund.

The Land Law also stipulates a number of obligations to preserve and improve soil. For example, the law requires, at Article 74, that farmland owners ensure the cultivation and protection of the soil. If they fail to comply, owners will receive a written notification form the town hall. If they persist in their non-compliance the mayor has authority to take administrative action against them. The

[26] Currently the Ministry of Environment and Sustainable Development, established by Government Decision no. 368/25.04.2007, published in the O.J. no. 284/27.04.2007.

[27] *Ibid*. Article 8, paragraph 3, concerning the land fund.

[28] Article 92, paragraph 8, Law no. 18/1991.

law also requires that developers remove the fertile layer of soil when using the terrain for purposes other than farming. The layer of soil thus removed must be used to improve the soil on other land which is not productive from a farming point of view[29]. The soil can be stored only if the land owner agrees so. Article 101 of the Land Law stipulates the obligation for investors or producers who own land but do not use it for the production process anymore, to take the necessary steps to give the soil an agricultural destination, if possible, and if not, a fishery or forestry destination, within the next two years after the end of the production process. The specific penalty for non-compliance is that the owner will no longer be allowed to change the destination of the land[30].

These provisions of Romanian law are aspects of positive law that make it possible to enforce the polluter-pays principle.

In Romania, pollution prevention and reduction is the first function of the polluter-pays principle. The idea, especially in the Romanian context, of establishing the principle to promote "paid pollution prevention" appears essential to us. Therefore, the general principle of law must fulfil its role, in the sense of legal demands, political strategies and efficient action plans for environment protection. Repairing ecological damage is not in the spirit of the prevention principle and of environment protection, especially because this kind of repair will never truly reverse the damage. Therefore is always better to prevent than to repair.

9. The Polluter-Pays Principle in Action

The polluter-pays principle is established in Romania not only by the Framework law on Environmental Protection, but also in the action plans for different environment sectors.

For example, the action plan concerning water protection against nitrates from agricultural sources[31], approved by Government Decision no. 964/2000 and its subsequent amendments, has led to the elaboration of a Code of Best Practices in Agriculture for water protection. The Directive 91/676/EC concerning water protection against nitrates from agricultural sources has as purpose to recommend best practices, measures and methods applicable by any farmer or agricultural producer, in order to protect water against pollution with fertilizers (especially nitrates) from agricultural activities.

According to Article 2, paragraph 1 of Government Decision no. 964/2000, the action plan for water protection against pollution with nitrates from agricultural

[29] Article 100, Land Law no. 18/1991. If developers do not take off the fertile layer of soil when performing their works, they will suffer an administrative penalty under ibid Art 111.

[30] Under the law (Article 101, paragraph 2) if the land owner ignores those stipulations, he will be only be allowed to use the land for agricultural or forestry destinations.

[31] Governmental Decision no.964/2000, published in the Official Journal no.526/25.10.2000.

sources shall be developed by a Committee of specialists from the Ministry of Water and Environment Protection[32], the Ministry of Agriculture and Food[33] and the Ministry of Health[34]. To ensure an adequate level of protection, the Committee shall also develop a Code of Best Practices in Agriculture, as a specific tool for farmers, since a sustainable agriculture depends not only on technology and professional knowledge but also on the mentalities and education of the players.

The objectives of the action plan for water protection against pollution with nitrates from agricultural sources are:

- to reduce water pollution as caused by nitrates from agricultural sources;
- to prevent pollution with nitrates;
- to rationalize and optimize the use of nitrate-base chemical and organic fertilizers.

The main requirements for the action plan are to identify waters affected by nitrates pollution, to identify vulnerable areas and, of course, to develop a code of best practices in agriculture. To that effect Romania has identified affected waters and vulnerable areas, and action programs were put in place containing mandatory steps to control the use of fertilizers on farmland.

9.1. The Code of Best Practices in Agriculture

The action plan establishes the framework for a Code of Best Practices in Agriculture which takes into account the agricultural use of fertilizers, which also are an important source of pollution. The action plan examines different types of fertilizers and establishes general principles for a rational fertilization. These principles are focused on the practices needed to ensure effective protection of water and soil, in a controlled regime, with a general monitoring, especially in vulnerable areas.

The Code of Best Practices in Agriculture for water protection[35] against nitrates pollution is predicated on the idea that water and soil are renewable natural resources. The Code's priority is prevention of environment pollution as a way of protecting and preserving such resources. Seeing that agriculture is an important polluting factor, especially for soil and water, the Nitrates Action Plan proposes to promote a biologically sustainable agriculture, including organic and extensive practices.

[32] Currently Ministry of Environment and Water Management, established by Governmental Decision no. 368/25.04.2007, published in the O.J. no. 284/27.04.2007.

[33] Currently Ministry of Agriculture and Rural Development, established by Governmental Decision no.385/2007, published in the O.J. no.282/27.04.2007.

[34] Currently Ministry of Public Health, established by Governmental Decision no.862/2006, published in the O.J. no.590/07.07.2006.

[35] Order no. 918/2002 of the Ministry of Water and Environmental Protection for the approval of a Code of Best Practices in Agriculture for the use of farmers.

In promoting good agricultural practices, the code identifies the principal causes of fertilizer pollution:

- increasing the areas of farmland to the detriment of land with perennial vegetation (*e.g.* pastures);
- insufficient improvement and systematic rotation of crops;
- the disappearance of certain crops that are less lucrative than intensive production, which uses large amounts of fertilizers;
- the use of heavy and powerful farm machinery, which damages the soil structure, worsens the deterioration process by making soil more compact and contributes to surface erosion;
- neglect of amelioration works, especially drainage, which leads to humidity excess and erosion.

But while water and soil pollution by agricultural activities are a factor, it is clear that eliminating this pollution is not an exclusive result of the "polluting" farmer's activity. Besides, some basic social solidarity must also operate, since agriculture is, after all, the biggest purveyor of foods. In this context the chapter of the Code concerning storage and use of chemical fertilizers or storage and management of effluents and manure is relevant.

Chemical fertilizers pollute soil because of excessive use and inadequate storage. Even though chemical fertilizers are sold all year long, farmers prefer to buy them when their price is at the lowest and then store them. The Code therefore regulates storage and makes many recommendations to that effect. The farmer, as a potential polluter, must therefore invest in equipping storage spaces, indispensable for a rational management of fertilizers.

Organic fertilizers are the second category of possible pollutants; they too must be managed, from the moment of their production and until they are used. During this process, product losses will occur to a higher or lesser extent. The loss of nitrates, especially, causes a decrease of their future effectiveness as well as environment pollution, especially of water and soil. It is therefore crucial that management of those sub-products be as strict as possible, to reduce harmful losses and the resulting pollution.

And since rational storage of organic fertilizers implies the existence of special spaces, certain steps are indispensable:

- placing such storage far from vulnerable areas and water sources;
- putting security and protection systems in place to ensure optimal conditions for use;
- ensuring easy access to allow fast response in case of fire or product leakage;
- ensuring sufficient storage capacity.

These steps ensure adequate management for organic fertilizers. But measures like these, necessary to prevent pollution, involve costs for the farmer or the animal breeder, which are to be found in the end-user price of the product. Such storage facilities are the responsibility of the person who uses them and that person must bear the maintenance costs.

We should also note that the Code of Best Practices in Agriculture is not mandatory, and ignoring it carries no particular consequences for the farmer. The Code is adhered to on a voluntary basis by farmers and there are no fees, with the exception of a number of vulnerable areas where it has the local authorities' backing. In those situations, whoever adheres to it and complies with it can easily receive incentives and subsidies from domestic or foreign funding[36].

10. The "Farmer" Programme

The so-called "Farmer" Programme was devised to transform less lucrative agricultural households in Romania into commercial family farms.[37] This program, financed by non-refundable European funds, allows subsidized investments but only after the establishment of projects. The projects are selected if they respect environment protection requirements, in the domains of agricultural production, livestock husbandry and fisheries. They may also concern activities of transformation and conditioning of agricultural products, but only if the equipment that is used complies with certain ecological requirements. For the projects likely to have an impact on the environment, an environment impact assessment is required. All selected projects must get an approval from the environment protection authorities, so that financed projects will be those that have a reduced impact on the environment. This way investment is possible in preventing environment pollution. In practice, the environment protection inspectorates examine each project and decide which type of endorsement to grant (approval, or environment authorization).

An important number of legal provisions in agriculture are designed to promote investment in agriculture, by creating the necessary legal framework to establish the "Farmer" Programme[38].

11. The Polluter-Pays Principle and Legal Liability

11.1. Civil Liability

Legal liability for pollution and violation of environmental protection rules also come under the applicability of the polluter-pays principle. Three types of legal liability apply: civil, administrative and criminal.

[36] For such incentives and subsidies, Romania's Government adopted Governmental Emergency Ordinance no.125/21.12.2006 for approval of the direct payment schemes and direct complementary payments for agriculture.

[37] The commercial farm is made up of the members of a family operating an economic activity, whose products are destined to be sold on the market. It can take the legal format of a legal entity (*e.g.,* a small family household) or a sole proprietorship.

[38] Law no. 211/2005 on promotion of investment in agriculture; Law no. 218/2005 on the promotion of the SAPARD fund (European fund for agriculture and rural development).

In many European countries civil liability is still based on fault giving rise to damage. For example, in France or in Belgium the civil code states that "all parties shall be liable for damage caused by their own actions or through their negligence or lack of due care". Thus the basis of civil liability for environment damage is different for the continental law systems (France, Belgium, Germany, Netherlands, Romania), where action comes as a result of violating a specific rule. In the common law countries, the main concept is "tort", meaning unreasonable action of the presumed author, resulting in damage. Liability can also be based on specific concepts, like violation of property, dangerous activities or negligence[39].

The Lugano Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment (1993), the European Commission Green Paper on environment liability[40] or the Civil Code of the Netherlands may suggest that the-polluter-pays principle calls for the establishment of a strict liability regime.

The first element of civil liability is the existence of damage. The damage can be caused to beings and goods, but also to the environment. The environment liability is the most difficult, in what concerns establishing damage, because in the light of the polluter-pays principle, the author should repair damage caused to a non-appropriable good. A problem here might be that the costs paid by the public authorities for taking action to stop any accidental pollution may not be recovered from authors who contributed to the damage. This may come against the polluter-pays principle, considering the idea that the clean-up costs for accidental pollution borne by the authorities should be charged to the polluter.

The environment damage is usually caused by one or more unidentified persons who are part of a larger group of unknown economic operators. Therefore, it is uncertain that the victim will be able to identify which operator produced the damage. Considering all these problems, some authors emphasized the need to develop a system of collective liability for cumulative damages, in which all hazardous installations operating in the area affected by the pollution in question will be held jointly responsible for the damage[41].

11.1.1. The Environmental Liability Directive

The European Union's Environmental Liability Directive (ELD)[42] is due to be implemented in the Member States by 30 April 2007. ELD will lead to

[39] Mircea Duțu, *Environmental Law,* Ed. C.H. Beck, Bucharest, 2007, p. 260.

[40] Communication from the EC to the Council, the European Parliament and the Economic and Social Committee of 14 May 1993 (COM(93) 47 (final)), 25 and following, which states that a strict liability regime presents the advantage of favouring the implementation of the polluter-pays principle.

[41] G. Teubner, *The invisible cupola: from Causal to collective Attribution in Ecological Liability",* in Teubner and Farmer, *Environmental Law and Ecological Responsibility* (London Kluwer Law Int'lm 1994), 17.

[42] Directive 2004/35/EC of the European Parliament and of the Council on environmental liability with regard to the prevention and remedial action for environmental damage, OJ L 143, 30.04.2004.

numerous significant changes in national regimes concerning environmental damage. The directive establishes liability regimes for soil remediation, water pollution and natural resource damage.

ELD basically imposes an administrative law regime[43] centred on the States' obligation to issue prevention and restoration orders concerning the specific harm to the environment and recovering the cost of prevention and remediation, if the operator does not act in this respect. As a matter of substantive environmental liability (whether under civil or administrative law) the Directive proposes two scenarios. The operator executed the preventive measures himself or action was taken by a public authority who wants to recover the costs from the operator. As a result, the operator becomes the main responsible party, either in the sense of carrying out any measures or in terms of financial liability for any measures taken by public authorities[44]. ELD delineates its scope by various mechanisms like exemptions, rules and lines of defences. Articles 5, 6 and 8 deal with preventive and remedial measures carried out by the operator or the recovery of the costs if they were borne by public authorities.

As all EU environmental legislation, the ELD is aimed at minimum harmonization and therefore States might be tempted to enact more stringent requirements. Nevertheless, after the transposition and the implementation of the Directive the implications for civil liability will be significant. The question will be if a violation of ELD by an operator will be seen as negligence *per se* and consequently will hold the operator responsible for negligent conduct and liable for any ensuing damage. It will be hard for operators to avoid violations of ELD, which requires preventive or remedial action on their part with respect to actual environment damage. Even though the ELD does not entitle individuals to compensation for environment damage, it does not substitute for national civil liability systems and rules of compensation for damage[45].

In conclusion, ELD will establish a broad liability regime for environmental damage with important consequences for the involved stakeholders. Only time will tell whether ELD will contribute in preventing environmental damage. One thing is certain: since its implementation in the Member States is mandatory, the ELD regime will impose unnecessary costs and burdens on public authorities and will face them with uncertainty as to their rights and obligations. In this respect Romania will probably be no exception[46].

[43] Lucas Bergkamp, *Implementation of the Environmental Liability Directive in EU Member States,* ERA Forum, no. 3/2005.

[44] Gerrit Betlem, *Scope and Defences of the 2004 Environmental Liability Directive: Who is liable for what?,* ERA Forum, no. 3/2005, p.376.

[45] Article 3.3. of the ELD: "*This Directive shall not give private parties a right to compensation as a consequence of environmental damage or of an imminent threat of such damage."* Recital 14: "*This Directive does not apply to cases of personal injury, to damage to private property or to any economic loss and does not affect any right regarding these types of damage."*

[46] Romania transposed and implemented Directive 2004/35/EC of the European Parliament and of Council on environmental liability with regard to the prevention and redressing of environment

In Romanian law, civil liability is regulated by the Civil Code[47]. As concerns civil liability for environment damage, the legal basis was considered to be Article 1000, paragraph 1 of the Civil Code: "One is liable for the damage caused by the people one is responsible for and for assets that are in one's care." This Article can be interpreted either as a liability based on fault or as a liability for a certain risk. Nevertheless, the action of an asset as a basis for environment liability has raised serious questions.

Civil liability, which applies as the result of ecological damage, has been regulated since 1995, after Romania enacted its first environmental law[48]. It was renewed in the currently applicable regulation established by Environmental Emergency Ordinance no.195/2005, which is the current Framework Law for the Protection of the Environment. These rules are not the same as those of regular Romanian law, as stated by the Civil Code. Regulated by Article 95 of the Frame law, liability for damage caused to the environment has an **objective character.** Liability is not based on fault and, if more than one person is liable then liability is shared between them.

In legal practice, it cannot be stated that magistrates have completely understood the functioning of the polluter-pays principle, but they are strictly applying the legal aspects of positive law, which are rather clear.

11.2. Administrative Liability

In its substance, the polluter-pays principle considers that it must be possible to attribute pollution to an economic operator and, therefore, a "payer" has to be found. In this view, establishing causality is one of the main conditions of the principle. As we know, at its origin, the principle was based on a negative idea, meaning the national budget must not bear the cost of environmental damage caused by private activities and, consequently, the burden must be placed on the polluter, in order to make him internalize the external costs. We do not think it possible, in this domain, to establish causality as a certainty but as likelihood. A significant contribution in complementing the effects of the principle lies in administrative liability. In this view, a contravention means violating one's obligation to pay for damage and to deal with its consequences, by restoring the original conditions, according to the polluter-pays principle (Article 96, paragraph 3, item 14, EGO no. 195/2005) or the obligation to cover the necessary costs for

damage, through Governmental Emergency Ordinance no. 68/2007, O.J. no. 446/29.06.2007, but we will not go into details about this regulation, since at the moment where this paper was presented, it was not yet implemented.

[47] Article 998, Romanian Civil Code: "*Any human action that causes prejudice to another person must be repaired by the author who is responsible for the prejudice".*

[48] Law no. 137/1995.

preventing and/or reducing the adverse consequences of activities such as genetically modified organisms (Article 96, paragraph 3, point 10).

The polluter-pays principle is found in all sorts of regulations (*e.g.* Laws, Governmental Ordinances and Governmental Decisions). Administrative penalties are often applied to individuals and legal entities, in the form of administrative fines, whose range has the purpose of deterring the polluter. These fines do not usually stop the polluter, because he makes significant profits and prefers to pay the fine rather than comply with environmental requirements. Therefore, it can be stated that the polluter is buying the right to pollute.

The environmental frame law, EGO no.195/2005, classifies environmental contraventions in three categories, based on the criteria of the amount of losses. In the first category we have 27 contraventions, such as: violating the obligation to keep a record of dangerous substances, to identify and prevent the hazards posed by such substances to the health of people and the environment; the obligation for landowners to maintain forest protection belts, etc. In the second category we have 34 contraventions, like: violating the obligation to inform the public concerning industrial facilities that create an environmental hazard; violating the obligation to operate only based on an environmental authorization, etc.

Finally, in the third category we have the most serious 15 contraventions, including the obligation for individuals and legal entities to cover the costs of an environmental damage and to eliminate its consequences, by restoring the original conditions, according to the polluter-pays principle (Article 96, paragraph 3, item 14).

Administrative penalties are also regulated by special laws, such as the Land Law. For example, the act of restricting a person's access to public information concerning the application of land regulations or the act of preventing inspection by jurisdictional public authorities is punishable by a certain amount of administrative fine. There are also contraventions, stipulated in Article 111: failure on the part of land owners or authorized persons to take the necessary steps for maintaining topographic and geodesic points in good conditions, or involuntary destruction thereof; the use of land which must be definitively or temporarily removed from agricultural production, before they it is delimited; failure to take the steps needed to avoid contaminating land with production waste, etc.

Also, the Water Law no. 107/1996, as amended, states that actions that damage water sources constitute contraventions if such actions fall short of meeting the criteria that would put them in the realm of criminal liability. The law lists 61 contraventions, such as: inexistence of prevention plans for accidental pollution; inexistence of plans to defend against floods, dangerous meteorological phenomena and prevention plans for accidental pollution, etc. Pollution from agricultural activities fits into this latter category.[49] There are also administrative penalties here, such as temporary suspension of the water management authorization and procedures for modification of the approval and water management authorization.

[49]Article 87, Water Law, no.107/1996 as amended.

11.3. Criminal Liability

Environmental crime is becoming increasingly profitable, mainly coming in the shape of activities like: illegal dumping of dangerous waste, trafficking of banned substances, etc. Under current Romanian law the regime of environmental crimes is very loose and for the moment is regulated only in the Environmental Frame Law, GEO no. 195/2005. Its Article 98 lists 25 environmental crimes, which are actions criminalised if "they create a hazard for life or for human, animal or plant health". Such violations can be compounded by such aggravating elements as: genuinely endangering the health or bodily integrity of a large number of persons; causing serious material losses; causing one or more persons to die; causing considerable damage to the national economy. In such cases the attempt to commit such violations is also punishable. Criminal liability is entailed by particularly serious actions that have a considerable impact on human life and health. From this point of view, environmental crimes can be consolidated into three categories:

- crimes whose effects are destruction, deterioration or environmental damage;
- crimes under the scope of activities that have a serious impact upon the environment and thus require obtaining an environment authorization and compliance with the latter's conditions;
- crimes involving failure to implement safety measures or failure to heed administrative or criminal penalties for non-compliance with environmental protection obligations.

Certain criminal violations are also stipulated in other special laws, like the Forestry Code[50] or the Water Law no.107/1996, which establish that polluting water resources, irrespective of the manner of such polluting, and thus causing water consumers located downstream to suffer damage, is punishable by no less than six months and no more than three years of imprisonment.

12. Conclusion

Romanian environmental law is almost entirely harmonized with European legislation. Improvement is still needed with implementation and enforcement of the already transposed environmental legislation. This is a process, which needs time, and is still incomplete even in Member States with more experience in developing, implementing and enforcing environmental regulations.

Our country envisages the command and control approach, similar in most European Union Member States, but is also introducing the incentive-based

[50] Law no. 48/2008, published in the O.J. no. 238/27.03.2008, that repealed the old Forestry Code, which had been enacted through Law no. 26/24.03.1996.

approach, as in the OCDE countries. Based on the first approach, the polluter-pays principle is applied in almost all agricultural activities. Payments, under the analyzed principle, constitute a rather reactive approach, repairing damage already caused by pollution, even if it is historical pollution, caused by the State prior to the privatization process. There are different ways for the payment of penalties, fines, fees, etc. Payments can be made via the operational funds (*e.g.* the Environmental Fund) as described above. The principle meets an economic need and its success in environment taxation is thus ensured.

Nevertheless, the polluter-pays principle is still surrounded by a certain degree of ambiguity, remaining essential for the implementation of a further preventive environment protection policy, creating the possibility of obtaining funds for carrying out that environmental strategy, changing the behaviour of the entire population on a medium term.

The second, incentive-based approach is now being considered by the small and medium farms, which are receiving incentives for eco-activities. So, the companies that are active in agriculture are starting to move towards preventive measures, financed by the polluter, in view of medium- to long-term benefits for health and environment.

Education, information and public participation in the decision-making process, as well as monitoring and control of the way in which legal provisions are applied, will help ensure the practical application of the polluter-pays principle.