

## European Union – Policies for a Better Environment

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**Abstract:** Environmental protection is part of the most important EU policy areas, and enjoys the constant support of the public opinion. The main objectives of this article are the presentation of the history and goals of this policy, the 'Prevention' and the 'Polluter pay' principle, and European legislation regarding the waste, air and water quality. Finally there are presented a set of solutions that we consider useful in the context of twenty-first century. A qualitative approach was used, and the main methods employed are the observation, and a case study about the frauds that recently began to appear in EU, namely the stealing in the trading system of carbon dioxide emission rights (which also affected Romania).

**Keywords:** environmental quality; biodiversity; pollution; protection

### 1. Introduction

Since the beginning of life on Earth, it was preserved a complete harmony between living beings and the ecosystem. The appearance of the humanity led to a deliberate change of nature, especially since the emergence of the industrial civilization during the nineteenth century. Having predilection to material wealth the human race was less interested to live in a healthy environment. If the Romans were advocates of the principle 'healthy mind in a sound body', today's society seems that wants abundance in a sick nature.

Irrational exploitation of renewable resources (flora, fauna), and the non-renewable ones (minerals, oil) has created a disequilibrium at the global level. This deterioration has caused the accentuation of poverty for millions of people and thousands of human communities, the extinction of many life forms and the irreversible loss of the services which they offered, who till now, had been proportionate by the destroyed ecosystems. It also endangered the development opportunities for present and future generations.

This happened during the last 50 years, when the humanity violently interfered with the ecosystems in a unprecedented manner. World population now uses more resources than the planet can generate. Humanity seems to be immersed in a gradual drift toward a global scenario with an uncertain future threatened by climate changes with catastrophic consequences. The climate changes threatens not only the planet, but also the human race, who is in danger to get out of control their own destiny.

In the contemporary period, due to the more visible effects of pollution, the environment became a major subject of discussion, because 'its quality (entirely as a whole, but also at each component) is an issue of major interest for the social evolution' (Negrut V., 2006, p.7). Public opinion desired that all the governments are aware of the environmental dimension value and take the necessary measures. The summits in Rio de Janeiro (1992) and Johannesburg (2002) seemed to indicate the right way of action in this field. However, in the last twenty years, the constant degradation of ecosystems, soil and atmosphere, the extinction of some species, the termination of the non-renewable resources have increased with greater speed than in the past, without solving the major social problems. One billion people do not have daily potable water, two billion have no access to electricity, and three billion live daily with less than two dollars a day. It is the entire global system that needs changes

Even if Europe is our home, the necessary reforms can be designed only in a global context. The European Union has adopted a strong legislation to protect the environment. This was done because the 27 countries exploited their natural resources at a much faster rate than other regions. Some European countries consider that they have a moral duty to pay towards the environment protection because of their history of irrational exploitation of former colonies.

Europe is a leader in environmental protection due to its technological and human capacities and because of the vitality of the civil society. In the contemporary period, the EU acted as an area of peace and cooperation between the 27 Member States and built a social protection system superior to other regions of the globe. These achievements gave to the Europe the advantage of guiding the first steps of the international climate agenda, of providing actual examples of wilderness protection. All these were achieved by imposing some restriction to the main sectors of industry. The EU has a difficult role, as it is meant to be the guardian of social and environmental rights, but also doesn't want to loose its international influence by restricting the economical development.

This article aims to present the history and some principles of European environmental policy, the legislation that supports it, the problem of water and air pollution. In its final part we propose some economical and political solutions to the ecological crisis.

## **2. The History and Goals of the UE Environmental Policy**

In the EU the protection of environment have broad support of the population. A survey throughout the EU (Eurobarometer, March 2008) revealed that more than 95% of Europeans believe that environmental protection is important. About 80% of the interviewed said that the environment influences their quality of life and asserted that through our own efforts, we can contribute to its protection. Approximately two thirds of Europeans consider that the decisions regarding the environment should be taken at the European level, rather than at the national level. The most of the Europeans find necessary the harmonization of the environmental legislation of the EU states (82%), and agreed that the UE should support the countries in improving the environmental standards. Approximately 78% of the citizens consider useful to create a European civil protection force in order to combat natural disasters in their countries.

Regarding the effectiveness of environmental policy, almost two thirds of the Europeans believe that environmental protection is an incentive for innovation (63%) and only 16 percent consider it a potential obstacle for the economic performance. Almost the same percentage of Europeans (64%) argues that the priority should be given to environmental protection before the economic competitiveness. Only 18 percent support the economic competitiveness. More than two thirds of Europeans are convinced that the individual progress of the countries should be measured using social, environmental and economic indicators. Only a small proportion of citizens (15%) believe that the progress should be based on monetary and economic indicators.

The same Eurobarometer undertaken in 2008 showed that for the citizens of EU, the most serious environmental problems are: the change of the climate, air and water pollution, man-made disasters, the use of chemicals in consumer products and the use of genetically modified organism in agriculture (Profiroiu et alli, 2008, p. 325).

At this moment, environmental management, is one of the most important areas of EU Policy the interest in this field and has recently emerged in the second half of

last century. Since the 1960s the environmental policies have begun to develop when it was signed the first legislation to control products, particularly hazardous substances in industry. The first global environmental conference took place in Stockholm in 1972, “having considered the need for a common outlook and for common principles to inspire and guide the peoples of the world in the preservation and enhancement of the human environment”.<sup>1</sup>

In the period 1973-1977 was organized the first Environmental Action Program who represented the beginning of EU environmental policy. The Single European Act clearly assigns for the European Community the competence in the field of environmental policy. In 1992 took place the Summit of Rio de Janeiro. ‘The primary goals of the Summit were to come to an understanding of ‘development’ that would support socio-economic development and prevent the continued deterioration of the environment, and to lay a foundation for a global partnership between the developing and the more industrialized countries, based on mutual needs and common interests, that would ensure a healthy future for the planet’.<sup>2</sup> The Maastricht Treaty established the integration of environmental issues in the European sectorial policies. The Amsterdam Treaty accentuated the importance of environment and sustainable development and in 2000 there were already more than 700 laws on environmental protection. The Sixth Environmental Action Program (2001-2010) entitled “Our Future, Our Choice” proposed the monitoring of all the Member States on the implementation of environmental legislation, using the strategy “Name, Fame and Shame”.

EU has proposed, at least theoretically, the following environmental principles: pollution prevention, reducing the exploitation of natural resources, the increasing of the environmental education, national legislation must be into the same line with the community legislation, and the economic activities of a state must not harm other countries. The most important objectives of this policy are: to preserve, protect and improve the quality of environment for the future and for the health of the human species. Also it is still searching solutions for the proper use of natural resources (as many have left) and the acceptance of all measures which offer solution to this problem. It is required a more accurate information of the population to enhance the responsibility and taking the decisions. Not all states have the same environmental standards, so that a uniform legislation is desirable.

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<sup>1</sup> <http://www.unep.org/Documents.Multilingual/Default.asp?documentid=97&articleid=1503>

<sup>2</sup> <http://www.un.org/geninfo/bp/envirp2.html>

To achieve at least a part of these objectives financial instruments are needed. The most important financial instrument is LIFE. This program is addressed for the local authorities in order to help them in the integration of the local policy (reducing wastes, prevention of the water pollution, including sewerage treatment, the investing in technologies that reduce air pollution etc).

In environmental protections are engaged the following European institutions: European Commission is acting through Environment General Directorate, the Council of Europe through the Council for the Environment, and the European Parliament by the Environment Committee.

### **3. “The Prevention” and “the Polluter Pays” Principles**

The best strategy to protect the environment is to prevent the pollution and not to remedy its effects. It is also indicated a very good knowledge of the current situation in order to take easily into account any adverse changes. The ‘Prevention’ Principle implies ‘measures against the causes that produce pollution and environmental degradation (by redirecting the ecological production processes) and activities to limit the destructive effects for environmental factors’ (Dutu M. 2010, p. 115). It is recommended to take into account the environmental protection requirements during any activities which impacts on its protection.

This principle especially focuses on the biodiversity conservation, Ozone layer protection, and the desertification prevention. Because of the global warming large areas of Europe are threatened by the desertification, especially in the Mediterranean countries (Spain, Italy, Portugal and Greece). Unfortunately, the phenomenon of desertification appeared in Romania too were the most affected regions are Oltenia, the South of Muntenia, Dobrogea and Banat. In order to solve this problem, we consider that EU can be inspired by the Egyptian policy in combating the desertification. Sahara Desert, in Egypt, became fertile ground using the wastewaters (the wastewaters contain nitrogen, micronutrients and benefic organic substances for the soil). Egypt has managed until now to turn the desert into farmland and forest on an area of 71 400 square kilometers, representing the surface of Panama or Ireland.<sup>1</sup> Also for Europe, the intelligent use of waste waters may be one of the viable solutions to combat the desertification.

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<sup>1</sup> <http://www.elmundo.es/elmundo/2010/11/08/ciencia/1289207071.html> Currently ten projects of desertification took place in Egypt on an area of 17 000 square kilometers.

In the EU functions the notion that when a rule is broken the damage must be repaired in favor of the affected – ‘The Polluter Pays’ Principle. EC Declaration of 1968 on combating pollution states very clearly that all expenses incurred to prevent or reduce pollution should be borne entirely by the author of pollution. This provision is reflected in the guiding principles of international economic relations which are under the influence of environmental policies adopted since 1972 by member countries of the Organization for Economic Cooperation and Development (Dutu, 2010, p.118).

At the European level, the principle was assigned in the Single European Act (1987) and in the Maastricht Treaty (1993). ‘The Polluter Pays’ principle is mentioned in the Single European Act of 1987 (art. 130 lit R) having two interpretations: the polluter pays all measures to respect the existing legal standards and secondly the polluter pays all other effects (external costs) of pollution (Negrut, 2006, p. 43).

The emergence of this principle is due to the economy needs to cover the production costs and the costs related to the existence of externalities – pollution. Many times the big polluters save their money because they reduce the cost of pollution prevention (adaptation of technologies etc). To avoid this situation and ‘for correcting the inequities that determine, the externality costs internalizes toward legal recognition of the principle of polluter pays’ (Dutu, 2003, p. 214).

The liability, in environmental law, is now an institution that applies increasingly more from the multiplication and diversity of the ecological risks. This institution also acts due to the increasing severity of the environmental damage. These negative situations have been determined by the depth of the global ecological crisis, aggravated by the consequences of industrialization and automation, the application of high technologies in many fields of human activity, without sufficient and severe environmental protection. Unfortunately this principle is not a legal instrument to force those responsible to take the consequences of their acts but merely a way to finance environmental policies.

### **3. European Policy Regarding the Waste**

The current legislation defines waste as any ‘substance, preparation or any object which is included in the categories established in the specific legislation of waste

regime which the holder throws, intends or is obliged to throw".<sup>1</sup> Through the sixth Environmental Action Program, the EU Commission has passed in the elaboration of the sectoral strategies in this field. The first developed was the Waste Management Strategy because of the improper disposal of the industrial waste and the broken pipes who polluted the groundwater and have led to environmental damage.

These disasters have been seen long time before the holes in the ozone layer and climatic changes. This strategy defines the principles, objectives and medium and long term measures that will govern the actions taken by the EU in this sector. Initially, the observations were focused on radioactive waste, but efforts have recently focused more on non-nuclear waste problem. Initially, saving materials and energy as resources was the main motivation for the clear priority given to prevent the dissipation of the resources. Only later it was decided that this priority should prevail to avoid confusion in the waste storage facilities (Profiroiu et ali 220, p.345).

The main objectives in the European policy regarding the waste are: the development of clean technologies, the use of those products which through their production and use have no impact on growing the pollution, reusing the waste by recycling or using them as an energy source.<sup>2</sup> In the waste management activities are used methods which do not jeopardize the health of the population and the environment.

In the field of waste management, the specific EU legislation results from the environmental acquis and it is implemented in environmental legislation of each Member State (Marinescu D. 2010, p.484). The owners and the producers of waste must deliver them on a contract basis to some collectors who perform recovery and disposal operations. The operators in the field of waste collection are obliged to hold spaces for temporary storage. They should avoid the formation of stocks because it may cause environmental pollution phenomena and presents a risk of fire to neighborhood. The individuals must to deposit separate the domestic waste in special spaces.

In EU, and also in Romania it is forbidden the importation of the radioactive waste except when the import derives from the acquisition abroad of an export previously

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<sup>1</sup> Article 2 section 19 of Government Emergency Ordinance 1995/2005 on environmental protection.

<sup>2</sup> In the field of waste policy, the community acquis was adopted in Rumania before the accession to the EU. Article 3, paragraph 1, the Government Emergency Ordinance, No. 78/2000.

authorized with business partners in legal terms. The holder of the authorization for carrying nuclear activities is obligated to respond for transport management, to support the costs of temporary storage, and to pay the required contribution. The radioactive waste resulted from mining and from the preparation of uranium and thorium ores can be transferred in the environment only in terms of total compliance of the provision included in the basic rules of the Radiological Security.<sup>1</sup>

The Radioactive waste must be managed in order not to damage the health of the future generations. Our responsibilities include the technology development, the construction of treatment installation, and the administration of the radioactive waste. Those products with a long life can be permanently stored only in deep geological deposits, to ensure the people's health and the environmental protection. In assessing the security of those deposits it must take into account the presence into area of natural resources, because the exploitation of the new ore could affect the waste deposit.

Across the EU the transport of waste is made only by operators who hold EU environmental license and the transported waste must be labeled and packaged in accordance with the law. These operators are obliged to use means of transport appropriate to the nature of waste to prevent them to spread and the noxious emanation during the transport. They must not abandon the loads and announce the authorities about any transport of radioactive waste, and fire units in case of carriage of waste with fire or explosion potentially. In case of urban transportation of waste the operators must be licensed also by the local authorities.<sup>2</sup>

#### **4. European Policy for Water and Air Quality**

The total volume of water on Earth is about 1.4 billion cubic kilometers. The volume of freshwater resources is around 35 million cubic kilometers, or about 2.5 percent of the total volume. The largest amount of water (97%) is in the oceans, polar ice caps contain 2%, and rivers and underground storage only 1%. In the atmosphere exist around 10 000 billions tons of water, nearly 200 tons for each hectare of land. The UN suggests that each person needs 20-50 liters of freshwater

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<sup>1</sup> Radioactive waste means the material resulting from the nuclear activities for which there was no use provided, and are contaminated with radionuclide in concentration superior of the acceptable limits. Annex 2, section7 of Law no. 111/1996.

<sup>2</sup> Article 23, paragraph 2, letter a, c, d, the Government Emergency Ordinance, No. 78/2000.



a day to ensure their basic needs for drinking, cooking and cleaning. In developing countries, 70% of industrial wastes are dumped untreated into waters where they pollute the usable water supply.<sup>1</sup>

Every 15 years the consumption of water doubles on earth, UN statistics for the next 20 years shows that the water supply per person will decrease by one third from current levels. Water pollution is caused by at least five categories of pollutants: physical, chemical, biological, bacteriological resulting from various human activities. Because of these factors the EU the water policy was one of the first areas of action of European environmental policy.

The waters have always been part of public property, and their undisputed manager was the state. Constitution of Romania in its economics and finance section, Article 31, paragraph 1, establishes that: 'the waters with hydropower national interest, beaches, territorial waters, natural resources of the economic zone and continental shelf shall be exclusively public property'.<sup>2</sup> It should be made mention that although the goods belonging to the public property are inalienable, but this does not exclude their integration into economical and juridical circuit.

Since the 1970 in Europe have been adopted a series of legal provisions on the prevention of water pollution, and there are two areas of regulation: directives which establish standards for each type of ware (drinking, bathing, fishing etc) and provisions to protect waters from pollution by harmful substances. The evaluation of Community policies in the water sector required a modern approach, based on a combination of the two earlier systems evidenced in the Water Framework Directive (2000). It defines the following principles of the EU in the sector of water quality: high level of protection, precautionary principle, preventive actions, "polluter pays" principle and the integration of environmental policies into other sectoral policies. (Profiroiu M. et alli, 2008, p. 349-350).

UE legislation on water protection is identical for all the 27 member states . Water Law enshrines the principle that 'water is a natural heritage that must be protected, treated and defended as such'.(Marinescu D. 2007, p.164). European law aims: water conservation and the development of water resources, protection against all form of pollution, quality restoration for surface and subterranean water,

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<sup>1</sup> <http://www.unwater.org/programmes.html> The World Water Assessment Program (WWAP) synthesizes data and information gathered by the United Nation – Water members, including non governmental organizations, universities, research centers and countries. It presents its findings through the triennial World Water Development Reports.

<sup>2</sup> [http://legislatie.resurse-pentru-democratie.org/const\\_2003.php#136](http://legislatie.resurse-pentru-democratie.org/const_2003.php#136)

conservation of aquatic ecosystems, providing water supply to the population, protection against floods etc. In Romania a special attention is given to the protection of the Danube Delta ecosystems and the Black Sea. In order to protect the Black Sea, it is aimed a gradual elimination of discharges, emissions of toxic substances in the marine environment to achieve the concentration of these substances close to natural backgrounds values.

The atmosphere is a thin layer of gas which surrounds the Earth having constant properties up to 3000 meters. The present composition of atmosphere is: 21% oxygen, 78% nitrogen, 0.04% carbon dioxide, 0.09 percent argon. Besides water steam, several other gases are also presents in much smaller amounts: carbon monoxide, neon, oxides of nitrogen, methane and, krypton. The atmosphere has changed a lot compared with Earth's early atmosphere, but, for the last billion of years has remained constant.

In present days appeared three different atmospheric problems: increase of global temperatures, the damage of the ozone layer, and the acid rain. They occurred because air pollution has started to expand in the second half of the twentieth century due to the following factors: motor vehicles, electricity, agricultural activities, waste etc, all of them removing large amounts of carbon dioxide, nitrous oxide and methane in the atmosphere. Earth's temperature may increase in a decade by about one degree Celsius. Between 2030-2050, average temperature could become 1.5 to 5.5 degrees higher than the current ones, thus leading to temperatures on Earth have been recorded only two million years ago.

EU examining these issues has established its own policy on air quality assessment by the Framework Directive (447/2005). This directive has the following objectives: avoid, prevent or reduce negative effects on human health and the environment, evaluation of air quality based on common criteria and methods, proper dissemination of information when the warning levels are exceeded, maintaining air quality when it reaches an optimal quality, and improving air quality in areas where it is deteriorated. The directive establishes basic principles on the selection of air pollutants, setting limit values, requirements on air quality monitoring and assessment, information and alerting the public, short-term actions to be taken in case of pollution above the permissible limits.

An important group of regulation contained in the air quality is relating to emission from cars and motors. Reducing emission from motor vehicles and engines is achieved through technological improvements to new vehicles and inspection and maintenance of the plants, so that emission controls to take place in two different

stages. During the fabrication directives establish detailed mandatory tests required for approval, including tests for measuring emissions. All new vehicles registered in the EU after 2012 (either produced in Europe or imported products) will comply with the permitted limit value of carbon dioxide emissions according to their mass. Fines imposed will be set from 20 Euro per gram of carbon dioxide emitted by each car over the limit set for 2012, and continuing up to 95 Euro in 2015. During the use of vehicles is applied the Directive 707/2007 which includes requirements for periodic inspections and checks for traffic, including measurement of the emission of pollutants. (Profiroiu M. et alli, 2008, pp. 350-351).

An important role in protecting the atmosphere had the Kyoto Protocol. The protocol was initially adopted on December 1997 in Kyoto, Japan and entered into force on 16 February 2005. Until July 2010, 191 states signed and ratified the protocol. The target agreed upon was an average reduction of 5% from 1990 levels until the year 2012. Each industrialized state receives permission to deliver a certain amount of greenhouse substances, called assigned amounts. However if a country emits toxins into the atmosphere more than the amount that was allocated can buy units from other states.

Because of the large economic interest, frauds began to appear, and some of them seriously affected the Romanian state. In January 2011 the European Commission has suspended the trading system of carbon dioxide emission rights after a theft that took place in the Czech Republic and an attempt to hack in Austria. Last November a hacker stole 1.6 million emission allowance (15 Euro each, the equivalent of 24 million Euro) to Holcim Romania. Ismael Romeo, director of SENDECO CO<sub>2</sub>, Spanish Stock market, explained that 'in order to avoid transfers with stolen rights, the cash market was stopped'. Romeo said that 'in Romania was detected in Holcim theft of 1.6 million emission allowance. Of these, 600 000 were recovered in Liechtenstein. The other million are bought and sold so many times that is very fragmented'. The expert noted that 'the market was calm while waiting to see how could control that the potential stolen rights could not be renegotiated'.

From the above, it seems that Romania does not benefit of a fair competition from some other countries. Romania, as a signatory states of the Geneva Convention about air pollution, has consented by the Law 8/1991 to cooperate with European countries to combat the atmosphere pollution and its effects, and to develop a broad international program for monitoring and evaluation on the long range of air pollutants (Negrut V., 2006, p.107).

## 5. Final Solutions

The European Union public interest in the environmental problems is particularly high, and a clean environment is perceived as the most precious legacy that we can offer to the future generations. It constantly aims the improving process of integration for the environmental policies and strengthening the implementation of environmental legislation. The new countries that joined the EU, including Romania, have fully adopted the EU legislation supporting nature protection and biodiversity conservation. The European Union also intends to pressure the international community to apply throughout the world the most important attributes on global environmental conventions.

For a better implementation of environmental programs, we present below a set of solutions that we consider useful in the context of twenty-first century.

Economical solutions - it is required a sustainable economy, financial reform, environmental taxation, strengthening social protection, and the promotion of Green Jobs.

Energetic and climatic solutions - Kyoto Protocol compliance, 30% in emission until 2020, transition to a low carbon economy, the conservation of the energy, and the use of renewable energy.

Environmental solutions - enforcement of environmental regulation, protection of biodiversity and its corresponding finance.

Political solutions - zero tolerance for corruption, maximum transparency of public action, participatory democracy with broad participation of civil society, and long-term responsibilities of the policies adopted.

Solutions for the global crisis - reform of international financial institution, turn in the EU policy towards environmental sustainability, employment and solidarity, environmental justice, peaceful resolution of conflicts.

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