

Considerations about Sustainable Development through the Wastage Administration in the Context of Romania Integration in the European Union

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Abstract

Romania promotes sustainable development, according to the conclusions of the European Council from Cardiff (1998), European Strategy for Sustainable Development (Gothenburg 2001), of the sixth Action Plan for Environment and EU directives concerning domestic waste, packages and their manipulation, urban domestic water treatment, water quality for human consumption and air quality.

Key words: *environmental economy, sustainable development, investment, a modern system of wastage administration*

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Introduction

In the past ten years, the word “wastage” has presented a factor of great importance for European environment protection against the impact of wastage generation and administration. The objects and the substances defined as representing “wastage” enter under the incidence of community legislation in wastage domain, with a view to human health and environment protection. Wastage definition is applied by competent authorities provided in the Directive 2006/12/CE.

Sustainable development involves ensuring an optimal balance between economic growth and conservation and reconstruction of the natural environment, designed to ensure a harmonious development, able to satisfy the current requirements and future ones. In Romania this thing can not be achieved due to the existence of over dimensioned production capacities, morally and physically used technologies, insufficient or lack of financial means to purchase some environment protection equipments, and due to a management generally oriented towards obtaining an immediate profit. The current contextual legislation mostly offers the general framework needed for reconsidering environmental issues from the perspective of sustainable development.

Some Considerations about the Current Situation at European Level

The current EU environment policy is based on the concept known as “wastage hierarchy”. This thing means that wastage formation must be prevented, and what can not be prevented must be reused, recycled and recovered as much as possible, using as little waste dumps as possible. Waste dumps represent the most disadvantaged option for the environment because this signifies a loss of some resources, so it can be transformed in a potential risk for the environment. This hierarchy of wastes should not be seen like a rigid measure, especially thinking that different methods of wastage treatment can have a different impact upon the environment. Nevertheless, the purpose is to head towards a society of recycling and recovering, namely to climb on a hierarchy scale, to pass from the waste dumps to recycling and recovering.

European policy in wastage domain has the necessary potential to contribute to reducing the negative general impact which it has over the environment bounded by the use of resources. Prevention of wastage creation and promotion of recycling and wastage recovery will increase the efficiency level of resource use in European economies and will reduce the negative impact upon the environment. This will contribute to the maintenance of the existing resources, an essential aspect needed to assure a sustainable development. The basic objectives of the current European policy in wastage domain – to prevent waste formation and to promote the concept of reuse, recycle and recover in order to reduce the negative impact over the environment – are still the main pillars of the policy being also emphasized by the present strategy.

European policy in wastage domain is ambitious. The long term objective is to transform EU in a society based on recycling, to try avoiding as much as possible wastage creation and their use as resources.

In order to reach these objectives and to assure a high level of environment protection, the proposal is to modernize the legal frame through clarification and simplification of European law concerning the wastage.

This aspect needs a package of measures to promote prevention of wastage formation, recycling and their reuse in an optimal manner in order to reduce the impact over resources. With a view to these objectives the following *claims* are stipulated:

- An increased emphasis on complete implementation of current legislation. There is a series of problems related to implementation on the territory of the member countries, this varying from the continuing existence of illegal waste dumps in some states to differences related to interpretation in other states.
- Simplification and modernization of current legislation. Experience demonstrated that it is necessary for the current bureaucracy to be reduced in the field, with continuing maintenance of the increased level of environment protection.
- Introduction of a “cyclic thinking” in the domain of wastage politics. By means of a cyclic approach, the priorities can be easily identified and they can be redirected so as to obtain maximum profit as compared to the effort performed.
- Promotion of some policies preventing wastage formation more ambitious by clarifying the member states’ obligations, namely: to develop public programs for preventing wastage formation.
- Better information and knowledge of the problem that will strengthen the preventing wastage policy.
- Development of common standards for recycling. For the domestic market to function better it is necessary to establish a minimum set of standards for recycling activities.

This strategy is estimated to have implications first of all in the field of current practices in force within the member states and will create new opportunities for wastage management.

Less waste deposited to the garbage dump – through this strategy, wastage will continue to be redirected from the garbage dump to recycling and recovering.

Obtaining energy through wastage capitalization – from the moment wastage is directed to other ways of recycling than their deposit on the garbage dump, the variety of available options determines the progress on “a hierarchy scale of wastage” which is in the advantage of environment protection.

The present situation will be submitted to a review in 2010 to evaluate the obtained results and to create a clear image of the actions that will be taken in the future.

The *advantages* of this policy are as follows:

- Wastage policy will increasingly emphasize the impact over the environment, thus becoming more relevant from the cost – efficiency relation point of view.
- Provisions related to activities concerning wastage management will be improved, leading to cost reduction and elimination of obstacles related to wastage recycling and recovery activities.
- Preventing policies of wastage formation will be implemented at national level, supplying the highest level of economic efficiency and environment protection.
- Increase of recovery range of wastage will reduce the generated emissions leading to benefits in the field of environment protection like reduction of gaze emission effects.
- Increase of recycling process creates work places. Recycling of 10,000 tones of wastage needs 250 working places, as compared to 20 till 40 work places in case the wastage is incinerated and approximately 10 work places when the wastes are deposited in the garbage dumps.

Study Concerning Wastage Management in Romania

The total quantity of wastage generated in Romania in 2004 was approximately 36.7 billions of tones (8.19 wastage from towns and 28.51 industrial wastage with the exception of sweepings from mines). The proportion between the two categories is changing from year to year, the average being of 29% wastage from towns and 71% industrial wastage.

The wastage from towns in the urban areas is administrated through specialized services of municipality or through sanitation companies. The percentage of urban population which benefits from this kind of services is increasing from 73% in 1998 to 90% in 2002. Still, in rural areas this kind of specialized services of wastage management does not exist. Generally, the transport of wastage to deposits is made individually by each generator of this kind of wastage. Just a limited number of rural localities, especially those near the towns, have specialized services of wastage collecting.

This is not so good for the environment and at the same time it makes possible the encroachment of UE standards. In 2003 only 5% of the people from rural areas benefited from wastage collecting services, while in 2004 the percent has increased to almost 6.5%.

The wastage from houses and those similar represent almost 60% of the total municipal wastage, the rest representing the wastage resulted from municipal services, construction works and knocking and uncollected waste. Almost 40% of the municipal wastage components are recyclable materials of which 20% is potentially recoverable. As a result of selective collection

(pilot projects), only 2% from the total of generated recyclable materials are effectively recuperated.

The wastage storehouses represent the most useful method to eliminate municipal wastage. In 2003 there were 267 storehouses of this kind in Romania. In 2004 only 15 units of them were working according to EU legislation. Also, 236 of the registered storehouses did not correspond to the EU legislation. In 2005, 3 storehouses for municipal waste started functioning based on normal standards and 4 other units were closed.

There are 2,686 storehouses in the rural area (with surface of 1 ha or more). Closing and cleaning of these areas was stopped on 16th of July 2008 once the collection services in the rural areas expanded.

According to the National Plan of Waste Management there has been set the need for 49 storehouses for non-dangerous wastage with the capacity between 50,000 and 100,000 tones per year.

As regards industrial wastage, the responsibility of its management is held by those who generate it and they also have to contact waste removal services. At the moment there are few companies that deal with industrial wastage management and the services they provide are generally limited to one kind of wastage and capacities of procession.

An important part of generated industrial wastes (with the exception of those from extractive industry) is represented by wastage from the energetic industry which was of 16 billions tones in 2004. There are two power stations that do not correspond to the required standards, that burn solid fuel and that use the hydro-transportation for the generated wastage, stockpiling the wastage in their own cinder and slag holes. These power stations must change their technologies of wastage storages to attain the standards regarding the environment. As a result of integration negotiations, there was established a trial period of 2 to 7 years for these power stations to attain those standards.

At present, the dangerous medical wastage is eliminated as follows:

- by burning in 346 thermal treatment installations of medical wastage from hospitals (which do not correspond to the EU requirements and had to be closed until 31st of December 2008);
- by incineration together with industrial dangerous wastage in 4 incinerators owned and operated by the private sector (but only a small quantity).

Measurements of the degree of soil pollution in Romania indicated that almost 900,000 ha were affected by different types of pollutants thus reaching certain levels of pollution.

Generally speaking, after 1989 certain types of pollution diminished due to the more limited use of fertilizers and pesticides, lower emission of polluted smog or the closing of certain industrial and agricultural units. As far as the historic pollution of earth is concerned, new quantities of possible pollutants were added, fact which was underlined in the conclusions of the study monitored by the National Institute of Petrology and Agrochemistry (NIPA) within the National System of Pursuance at primary (16 x 16 km) and secondary level (in the impact areas).

The preliminary data offered by NIPA shows the fact that, in case of almost 250,000 ha the soil quality is affected by different types and degrees of pollution, 30,000 ha being seriously damaged. However, we need further data and an analysis of risk factors to elaborate a project of soil rehabilitation, especially for inappropriate wastage storages, ponds and holes for the storage of mining wastage.

The juridical frame is based on the European legislation in the domain of waste management, like for example the Frame Directive for Wastes, the Directive for Dangerous Wastes (radioactive), as well as Previews related to waste transport. Between 1990 and 1995 the

quantity of wastage generated in EU increased with 10%, while GNP increased only with 6.5%. Wastage generated by urban crowding (MSW) had a significant contribution to this increase being in direct relation with the economic activity level because both MSW and GNP increased in EU-25 with 19% in the period 1995-2003. The environment agencies anticipate an increase of paper wastage, glass and plastic with 40% for 2020 as compared with 1990.

The legislation in wastage domain predicts more methods of environment protection against the consequences of industrial wastage, especially through the procedures of authorization and transport and through specific standards related to wastage incineration.

The most important effects of recycling would be: to diminish the quantity of energy and raw materials necessary for the fabrication of new products; to re-insert important quantities of raw material within the economic circuit; to reduce the quantities stored at waste platforms or at crematories; to reduce the risks over our health and environment, caused by the improper sloop of dangerous wastage; reduce air and water pollution.

In 2008 Romania revises its National Sustainable Development Strategy. The Strategy was elaborated in 1999 following the principles stated in the Declaration of Rio de Janeiro Conference. To discuss it, we will take into consideration the European Union Sustainable Development Strategy, reviewed in 2006, responding to its key challenges and vision. But, as a prime decision-shaping factor, we will take into account Romania's national features.

The National Sustainable Development Strategy will guide Romania in its efforts to align its social and economic development to the European framework. But this path will take into consideration, first and foremost, the realities and specificities of Romania. As it is well known, the most important added value Romania has brought to the European Union is its natural environment, the value of its natural capital. The Union has become richer since Romania joined.

In pursuing its developmental path Romania is bound to follow the European development model. But we have the chance, within the sustainable development framework, to think over our growth, to plan economic and social development with full respect to the environment, without repeating the mistakes that led to the destruction of important parts of Europe's natural environment.

The strategy was to be finalized and presented to the European Commission by the end of 2008. It takes a medium and long term perspective, proposing target objectives, implementation measures and a realist evaluation of available financial resources until 2013, 2020 and 2030 respectively. The document will include, in a synthetic manner, the national and local strategies until 2013, as well as the operational programs approved or in process of being approved.

With a view to 2020, the main goal will be that of reaching the average development level of EU in 2007. By 2030, we aim to have reached the average development level of the EU states as they are at that date.

We are aware that the path towards sustainable development will not be a smooth one. It will be particularly difficult to change mentalities and behavior. We will develop a communication strategy, in order to render all citizens aware of the central role each and every one of them can play in facing this challenge.

The development of the National Sustainable Development Strategy is a participatory process. Policy-makers, economic actors, professional associations, nongovernmental organizations, the mass media and the public at large are called to bring their contribution within the framework of a series of large public debates organized in each of the eight developmental regions of Romania.

Solutions for Wastage Administration in Romania in the Context of European Union Integration

The wastage management was the sector marked with a yellow flag both in the Country report of the European Commission in 2005 and in the Country report of the European Commission from 16th of May 2006, and it was considered the domain in which progress was registered in the Country report of the European Commission from 26th of September 2006.

The 8 regional plans in the field of wastage management were finished and adopted by the common order of Ministers of Environment and Water Administration and European Integration in December 2006, according to the commitments made during negotiations.

By now there have been developed environment balance sheets and risk evaluations for 438 storages from the total of 450 storages (97.3%), as follows: for mining ponds (21), for all storages with liquid wastage (23) and for all storages with industrials dangerous wastage (47). Through Phare Programs 2003 Social-Economic Cohesion and technical assistance, ISPA prepare new projects.

The education of the personnel is pursued in two Phare 2004 twinning projects for the administration of municipal wastage (ARPM Bacau) and the administration of industrial wastage (ARPM Galati).

In districts such as Neamț, Vâlcea, Dâmbovița, Teleorman, Galați, Bacău, Argeș there have been implemented integrated projects of wastage management co-financed through the financial instrument ISPA, and the districts Bistrița, Giurgiu, Maramureș, Harghita, Covasna, Vrancea have received approval for the preparation of integrated systems for wastage administration. In the case of Iași, Satu Mare, Sibiu multi annual programs have been approved with a view to financing the integrated systems of wastage management. Appropriate storages of municipal wastage from Slobozia, Oradea, Craiova, Vălenii de Munte, Albești-Mangalia have been activated, at present functioning 20 deposits. Until now, of the 11 house wastage storages programmed to stop the storage until the end of the 2008, 8 municipal wastage storages received the notice to stop their activity and 3 storages are under focus in order to be closed.

Romania promotes sustainable development, according to the conclusions of the European Council from Cardiff (1998), European Strategy for Sustainable Development (Gothenburg 2001), the 6th Action Plan for Environment and EU directives regarding storage of house wastage, packing and packing treatment, urban domestic water treatment, water quality for human consumption and air quality.

The actions stipulated in the strategy will promote the increase of insurance levels and diminution of adverse effects over the environment, which will lead in fact to an increase in living standards of the population.

These objectives represent a great challenge for Romania and will imply major investments during a lot of years. Infrastructure will reach European standards and will respect the protocol from Kyoto. The main components of Romanian environment strategy for 2007-2013 are included in the national policy, like: Law of environment no. 137/1995 (amendments regarding protection of water systems and eco-systems, atmosphere protection), National plan of wastage administration and National strategy regarding energetic efficiency.

Actions will lead to an increase in wastage management quality, in the rate of connecting to the public supplies of sanitation services, at reasonable prices, to a decrease in wastage quantities from waste dumps and increase of recycled and reused wastage quantities. Another objective will be that of reducing the old contaminated sites. Integrated systems of wastage management will be created in accordance with the National plan and Regional plans of wastage

administration. Investment programs will take into consideration hierarchy of the stages in wastage administration, like: prevention, separate collection, recovering and recycling, treatment and wastage elimination. This policy will be implemented at the same time with the closing of the inappropriate storehouses. The projects will address the urban and rural areas with a population of minimum 300,000 inhabitants.

It is intended to support the investments that will contribute significantly to the EU regulation compliance regarding the regime of integrated administration of wastage, of wastage and packaging storehouses.

Priority will be given to districts from Romania where there have not been made any major investments as far as EU requirements are concerned. The second priority will be the extension of wastage management systems from those districts / areas where the first phase of integrated management has been implemented or where previous investments have been limited to organising a new storehouse or to bulk wastage collecting and transportation. The purpose is to create a modern system of wastage administration, to minimize the wastage quantity that is to be deposited.

Ecological rehabilitation of contaminated sites (for instance, the industrial areas) and of closed wastage deposits is an important problem regarding recuperation of these areas according to EC standards. The transformation of these fields in productive areas will increase economic competitiveness, and the rehabilitation of contaminated areas will reduce the negative impact on the environment and human health. Decontamination is the object of a strategy in the long run to recover the affected fields that can be used for public investments, in economic purposes or just for the rehabilitation of natural landscapes.

Conclusions

The Romanian economic development must be designed in such a manner that it can get integrated in the natural ecosystem. We must not forget that we belong to this ecosystem, as a species and as a society.

In assessing a product's environmental impact, the product's life-cycle must be followed from its acquisition and consumption to its output once it has been sold and used.

The Strategy will also promote sustainable transportation policy and initiatives, it will accelerate the measures for decreasing the effects of climate change, with a focus on clean energy and energetic efficiency. An essential requirement of natural resources management will be the development of a plan that allows their preservation and regeneration.

The concept of sustainable development means economic growth that aims at the progress of the society, and the human being's fulfillment and well being. A strategy of sustainable development cannot be therefore implemented without tackling vital societal issues such as public health, social inclusion, migration and demography, and poverty.

Yet none of the above objectives could be attained without an adequate education. We need education and training that are formative, and not leveling, as it has been the case until now. And it is just as essential to find the adequate financial means that will allow the implementation of these initiatives.

Romania's problems of wastage administration have a major impact upon the society and represent a direct threat to human health and an adverse effect over life. Most wastage in Romania is stored, fact that affects the environment due to the leakage from the waste dumps. Due to the frequent burning practices of stored wastage, there is also a problem of air pollution.

Taking into account these practices, we can draw the conclusion that the system of wastage management from Romania needs important improvement in order to comply with the national and European legislation. Strengthening a sustainable system designated to wastage administration, involves major changes in current practices. The implementation of such changes will be successfully achieved only with the involvement of the entire society: the population as user, entrepreneurs, socio-economic institutions and public authorities.

It is anticipated that improvement of the wastage administration system in more regions will have an important impact upon tourism. Now, in most tourist areas, there are no systems for wastage collection and/or transportation. Implementation of some collecting systems in these areas can have an important impact over the geographical outline and over the cultural sights in the area. Attractive regions from a tourist point of view and those that develop a system of wastage administration can become models to follow for other regions from Romania.

National Strategy for Waste Administration mentions the lack of a selective municipal system for wastage collection as being one of the main problems. Generation of some important quantities of wastage without taking into account the possibility of their recycling or energy recovery is not in accordance with principles of sustainable development. At present, in Romania, there are limited possibilities for sorting and collecting different types of wastage, to which one must add, as an important factor, the limited number of economic agents ready to recycle these sorted materials.

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Considerații cu privire la dezvoltarea durabilă prin administrarea deșeurilor în contextul integrării României în Uniunea Europeană

Rezumat

România promovează dezvoltarea durabilă, conform concluziilor Consiliului European de la Cardiff (1998), Strategiei Europene pentru Dezvoltare Durabilă (Gothenburg 2001), ale celui de-al 6-lea Plan de Acțiune pentru Mediu și directivelor UE privind depozitarea deșeurilor menajere, ambalarea și tratamentul ambalajelor, tratarea apei menajere urbane, calitatea apei pentru consum uman și calitatea aerului.