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Legal Sciences

INTENSIFICATION OF THE INTERNATIONAL POLICIES REGARDING WASTE RECYCLING AND ITS TRANSFORMATION INTO ALTERNATIVE SOURCE OF ENERGY*

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ABSTRACT:
IN THE PRESENT CONSUMERIST SOCIETY, THE DEVELOPMENT OF ALL THE ECONOMIC AND SOCIAL ACTIVITIES GENERATES A LOT OF RESIDUES, WHICH HAVE BROUGHT ABOUT, ALONG WITH MULTIPLE BENEFITS, POLLUTION PROBLEMS THAT RESULT FROM WASTE ACCUMULATION, WITH NEGATIVE EFFECTS ON THE ENVIRONMENT. IN ORDER TO KEEP THE ECOLOGICAL BALANCE, ALL THE STATES SHOULD PROPERLY MANAGE THE WASTE, IN ACCORDANCE WITH THE INTERNATIONAL CONVENTIONS IN THE FIELD AND TAKE THE REQUISITE MEASURES FOR WASTE RECYCLING AND TRANSFORMATION INTO ALTERNATIVE ENERGY, AVOIDING AS MUCH AS POSSIBLE THE TRANSFER INTO OTHER DEVELOPING COUNTRIES, THE CREATION OF IMMENSE DEPOSITS, WITH HARMFUL EFFECTS ON PEOPLE'S HEALTH AND ENVIRONMENTAL BALANCE IN ALL THE AREAS WORLDWIDE.

KEYWORDS: WASTE RECYCLING, ALTERNATIVE SOURCE OF ENERGY, INTERNATIONAL POLICIES, ECOLOGICAL BALANCE.

INTRODUCTION

Nowadays waste has become a real problem for the environment, taking into account the fact that its generation is practically inevitable; any activity also produces unusable scrap and its amount permanently rises because of the increase in the society's progress needs.[2] The industrial

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[2]Paraschiv Daniel-Ștefan *Reglementări internaționale privind circulația transfrontalieră a deșeurilor toxice*, Acta Universitatis George Bacovia. Juridica - Volume 4. Issue 1/2015, 77-90.

development aims mainly at getting immediate profit, so no correspondent management techniques of the resulted waste have been developed in parallel.

Consequently, it was necessary to gradually adopt an international legislative framework in the field, in parallel with the creation of an important "waste market", around which a lot of economic interests co-exist.

In the past, waste management did not represent a priority for the manufacturers, since it was non-profitable for them. As a result, the hazardous waste producing companies in the developed states chose the solution to export it in countries less developed, through numerous brokers in the field, thus avoiding the much higher costs, with direct impact on the business of the respective companies, as well as on the business of the manufacturers.

The world's new legislative framework allowed the creation of some waste management companies and a market in which waste ceases to represent unusable products, becoming object of commercial operations, being even exchange-traded, so that now according to the environmental legislation, the waste producers, as well as the economic agents specialized in its recovery and disposal, are obliged to provide for its management in a rational way from the ecological point of view.

Nevertheless, there still is an imminent cross-border danger because of the export and international traffic of toxic, hazardous waste, from the industrialized zones, significant waste producers, in particular towards the countries that have no restrictive regulations.

The massive industrialization for the last decades and the stricter international and national law regarding the environment (which restricts the international traffic), put the states with a strong economy in a difficult situation, being necessary to identify the best solutions in respect of waste management, depositing, recycling or disposal, with as small costs as possible.

INTENSIFICATION OF THE WASTE RECYCLING ACTIVITIES WITH A VIEW TO OBTAINING SOURCES OF ALTERNATIVE ENERGY

The desideratum of bringing about a common policy in the field of waste management, including recycling in order to obtain alternative energy sources, implies permanent compliance of the states' rights, specific environment administrative practices and procedures, to the ensemble of international and European Union's specific regulations, to the principles and interpretations resulted from the jurisprudence of the European Union's Justice Court, as well as of other bodies with attributions in the field.

Up to now, the adoption of some efficient techniques and specific legal instruments in order to properly manage the residues was only partly realized, while the necessity to perfect the waste treatment, recycling and disposal being still an imperative for hygiene and public sanitation reasons[3].

Nature follows its own way, and on the platforms where the household garbage and the industrial garbage similar to the household one are deposited, after a short while, by microbial processes, will inevitably end up decomposing and producing biogas.

Hence, the methane gas on the depositing platforms can lead to the occurrence of greenhouse effect, having a harmful influence upon the environment 32 times bigger than that of the carbon dioxide.

[3] M. Duțu, *Dreptul mediului*, 3rd Edition, (Bucharest:Publishing House C.H. Beck, 2010), 443.

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The proportion of the methane gas resulted from the garbage platforms is estimated at 8-18% of the methane gas released in the entire world, so that these alarming data impose collecting and using the gas resulted from the garbage platforms if in high amount, as an alternative source of energy; due to the fact that the methane gas has a much greater greenhouse effect than the carbon dioxide, the biogas should be recovered and used as alternative source of energy, being beneficent to the environment[4].

The possibility of using the domestic residues to obtain biogas as alternative energy source is beneficent, because biogas has a complex usage, both for heating living quarters and obtaining electric power, with the help of an internal combustion engine; the internal combustion engine can operate a power generator, thus enabling energy independence, and the extra electric power can be introduced into the public grid, against payment.

Another category of residues is represented by plastic waste, which is generated in great quantities because of the use of such materials in various industrial domains.

At the global level is recorded an increase in plastics production by 5-6 %, so nowadays besides the need to process the waste resulted from these materials, a present problem is environment protection and reduction of the polymer sources; under these circumstances it is necessary to harness the plastics waste as a major source of raw material for energy generation.

The issues related to environment pollution could be solved, but only by significant capital investments. Therefore, the specific characteristics of the plastics make the cost of the resulted waste processing and disposal very high, exceeding approximately 8 times the costs of processing most industrial waste and almost 3 times the costs of domestic waste disposal, because the methods used for the plastics are different from the known methods of solid waste disposal.

At the same time, by using the polymeric waste, the raw material (in the first place petroleum, natural resource), as well as electric power, could be saved.

Using plastics waste is getting more and more difficult from the technical and economic point of view, as a result of the plastics quality improvement in industry and their higher resistance against oxidation. Because plastic products are used in several branches of economy, the evacuation of the waste to the garbage pit has no utility, on the contrary, it leads to the registration of a continuous growth of the waste quantities resulted from these materials and surfaces dedicated to their storage.

Thus, a significant part of this waste is disposed of, being buried in the soil or incinerated, unprofitable procedures in terms of the economy and harmful from the environmental point of view; the decomposition of the plastic materials in nature is extremely slow and results in the reduction of the usable land surfaces, and the incineration of the polymeric waste leads to environment pollution.

According to the physical, chemical, mechanical and technological properties of the waste resulted from plastics, technological processing parameters and the areas of use of the resulted raw materials are chosen, which differ significantly from the initial polymer.[5] China's industry, in steady ascension, has needed raw materials for many years in order to develop and consolidate itself, but recently, following the commitments made in the *Paris Agreement* on environment,

[4] Rusu A.T., T. Rusu – *„Deşeurile, Sursă Alternativă de Energie”*, ProEnvironment 3 (2010), 586, 587, 590, http://journals.usamvcluj.ro/index.php/promediu/article/download/5570/5189.
[5] Cibotaru V., Angelescu A. „*Gestionarea deşeurilor urbane”,* Economia, 1/2004, 78-83.

favoring the "emergent technologies" becomes the goal, as very developed countries such as USA or UK, annually export millions of tons of carton into China in order for them to be recycled.

The new regulations in the field, rigorous enough in this state regarding the conditions of accepting the waste, may cause more than half of the amounts exported to return to the original countries. The big economies of the world were surprised at China's measures to prohibit waste imports and improve the related security measures, because the developed countries do not have implemented recycling techniques and methods commensurate with their own industries, this aspect leading to the accumulation of an immense quantity of waste. In the short run, that constitutes an immediate threat, both for the environment and population's health. China's intension to intensify the conditions with regard to the imports of Western waste triggered a real waste crisis at a global level. This situation should determine the industrialized states to take a lot more responsibility for the waste they generate, because every country must have in view not only the economic development, but also the citizens' right to live in a healthy environment.[6]

If China closes its waste import market, the nations will send waste to other jurisdictions, which are even less prepared to recycle and use it, and a vicious circle arises, as a consequence.

CONCLUSIONS

At international level, new sustainable solutions are being worked on, with regard to residue management, taking into account the accumulation of rising amounts of waste.

Among the present's measures of the international, European and national institutions, is in the first place the adoption of legislative measures, as efficient as possible, and new production technologies, as less polluting as possible.

Secondly, recycling should increasingly prevail in waste management, having at its basis selective waste collection within each household.

In the third place, special attention should be paid to the ecological education, with respect to generating as little waste as possible, correlated with recycling measures in order to obtain alternative energy.

All in all, we may say that at present we are witnessing a crisis related to waste management, so that methods to stop this phenomenon are being looked for, through measures provided internationally, inclusively in the European Union and by the environmental legislations of the states.

The most accessible solution is for each of us to take his/her responsibility, whether a physical person or economic operator, in relation with the environment, respecting, first of all the specific environmental legislation.[7]

According to the considerations above, recycling the waste, including the one resulted from plastics, represents a rational solution both economically and environmentally, with respect to avoiding the problems caused by atmospheric pollution[8].

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[6]*China nu mai vrea să importe „gunoi străin"*, article coming out in the magazine Ecologic, in the section „Politici & Economie" in 13 February 2018 - http://www.ecologic.rec.ro/articol/read/politici-economie/16109/

[7]*China blocheaza importurile de deșeuri – care sunt consecințele pentru noi?*, article coming out in the magazine „Raportare mediu", http://www.raportaremediu.ro/2018/01/26/china-blocheaza-importurile-de-deseuri/, accessed on 09.03.2018

[8] F. Macaev, S. Bujor, A. Mereuță „*Reciclarea deşeurilor din mase plastice prin procedee mecanochimice",* Magazine „Akademos Revistă de Ştiinţă, Inovare, Cultură şi Artă" no. 1(20), March 2011 – 29, 30,

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Because the main causes why waste recycling does not operate at the required parameters are the lack of technology, values or intentions, it is necessary to find alternative solutions, strong and stable markets for the transformation of waste and recycled goods into alternative energy sources

http://www.akademos.asm.md/files/Reciclarea%20deseurilor%20din%20mase%20plastice%20prin%20procedee%20mecanochimice.pdf.