SOCIO-ECONOMIC AND ENVIRONMENTAL SIGNIFICANCE STRATEGIC MANAGEMENT OF PROCESSING WASTE OF SERBIAN, FOR EXAMPLE IN PELLET

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Abstract

Changes in the mindset of people in the first decade of the new millennium have resulted in treatment escaping objects and things in terms of a complete transformation into useful products. Such approach is essential to so-called access. Green economy, which is substantially wider than most developed economies towards a growing number of countries, and in recent years, and penetrates to the former Yugoslavia. These processes are especially present in the countries that are on a par to the EU or by opening chapter of EU accession, and the changing legal and other frameworks to make up a system that is acceptable to the EU.

Generally speaking, it is increasing the general level of responsibility of nation states towards the common good. Multidisciplinary approach is becoming a trend to cover all issues, including the issue of sustainable development, green economy, employment based on the exploitation of raw materials and trendsetting products that are thrown in landfills and others.

The aim is to highlight the importance of processing less hazardous waste into a useful product, which can substantially change the approach to the classical approach to the economy, a new approach oriented towards creating benefits of the green approach to countries in transition, which is in line with the principles developed by the EU.

Key Words: Green economy, sustainable development, the European Union
1. Introduction

Countries in transition, such as the Republic of Serbia, must be based on science development and the benefits they may have, and to learn how to use all their natural capital and resources. It must be viewed in the context of smart and sustainable development, as well as in the context of human crossings to a new management concept. This means different business manage economy, economy of space, other perceptions of agribusiness, the processing of waste.

In addition to means and converting waste into other useful products that can be verified market. The global crisis means a gradual transition from the classical postulates of neo-liberalism [1] to some other models that are inherent to each country. On the basis of this new approach to business, should contribute to the strengthening of some of the new industries which are often called recycling industry. They are a function of economic growth, on the one hand, and on the other accepting such economy means improving the lives of more people. This improvement means creating new jobs, new wage workers, but also a cleaner living and working environment in the country that has adopted an ecological approach basically.

In this paper, the authors draw attention to a potentially new way to manage the economy of the Republic of Serbia, because there are obvious potential, and in addition, an example economic and environmental benefits underscore the importance of the new ecology of observation transition countries.

The Republic of Serbia is heading towards a path to the EU, and must harmonize its legislation with the EU and among them is environmental policy, taking into account the economic, socio-economic [2], ecological and economic [3] and other factors. By creating products based on the processing of waste essentially creates quality and promoted environmental policy, and contributes to improving the environmental situation in the country, health, benefits to business such as the acquisition of new customers, expand into other more profitable markets producing eco-products, raw material savings and materials by using recycled materials and improving the country's image, which is increasingly demanding that the country closer to the EU.

In this work, the authors suggest a multidisciplinary approach in considering ecology transition countries like the Republic of Serbia. Moreover, the authors draw attention to the importance of pre-things discarded in landfills, which represent a substantial cost for society, waste disposal, and the importance of processing less hazardous waste to a useful product.

The authors used the publicly available data of the Federal Statistical Office of the Republic of Serbia, which were systematically processed for observation period 2011-2013. In order to get the proper certificates on the quantities of discarded materials in landfills, which are substantially the cost to society, and in the later part of the paper pointed only one segment can be recycled that can be applied without major investments, and display used in the case of pallets.

Ever since the first international conference that was exclusively devoted to issues of the environment was held in Stockholm in 1972 and saw the participation of 113 countries and representatives of 19 international organizations essentially creates conditions for observation of environmental protection. Besides observation was directed also to the population in terms of improving the quality of life as an ongoing process.

More on the conference highlighted concerns about how human activity affects the environment, highlighting the problems of pollution, the destruction of resources, environmental damage, the threat of extinction of individual species and the need to improve the standard of living of the population. To date, these issues are ongoing and the conclusions of four decades ago are current today as it essentially emphasized the importance of the inseparable link between quality of life and the quality of the environment for present and future generations. It is recognized and the
harmful effects of human activities which may lead to a deterioration of the environment that threatens our future [4].

In addition to general observations management companies [5], [6] have been widely recognized and other perceptions of the company, i.e. it should be seen as an organization that also have a social responsibility. Observation of their business, that happens with non-standard and regulatory and conventional requirements or conditions are such that they increase the standards of social development, environmental protection, and to bring together the interests of various stakeholders in an overall approach of quality and sustainability [7].

2. General objectives pursued by the Republic of Serbia towards the EU in ecology and preconditions observation

The general objectives that must take into account the transit countries must take into consideration the settings of the EU. Accordingly objectives that underlie the environmental policy of the European Union are:
• Prevention, reduction and limiting environmental damage,
• Preservation of ecological balance,
• Rational use of natural resources,
• Promoting measures at international level to deal with global environmental problems [8].

On the road of Serbia towards the overall objectives of the EU, it must fulfill this study the authors began using the basic research first with the SWOT analysis of the current situation, as it can significantly affect the industry, primarily recycled, and should be viewed as a driver of market production of measurable products and this in a sustainable and socially responsible way, using modern literature [9]. In this context, the authors provide an overview of the situation in table 1.

Table No.1: **SWOT analysis of the current state of the industry that can become a chance for development of the economy in the Republic of Serbia**

<table>
<thead>
<tr>
<th>The available options and the existing power</th>
<th>Weaknesses</th>
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<tbody>
<tr>
<td>- Just the existence of quantities that are can the industry and other production methods turn into useful products, recycling industry,</td>
<td>- Lack of information,</td>
</tr>
<tr>
<td>- Tradition eliminating unnecessary waste in the continuity of the utility companies of local governments,</td>
<td>- Lack of interest of local governments,</td>
</tr>
<tr>
<td>- High-quality raw materials for the production of useful products,</td>
<td>- Insufficient interest of the local utility company for innovation in production and processing, especially less hazardous waste,</td>
</tr>
<tr>
<td>- The existence of sufficient manpower,</td>
<td>- Lack of interest of local companies to increase cost-effectiveness in the work, because financed from the budgets of local governments,</td>
</tr>
<tr>
<td>- Is sufficient energy to produce new products recycling industry</td>
<td>- A weak relationship between enterprises of local government, for example, companies that remove plant waste and waste stored at the local and regional landfills</td>
</tr>
</tbody>
</table>
- Permanently increase the demand for products that are produced by recycling,
- Extension of the areas that cities maintain and cultivate,
- Development of new products on the basis of the obtained raw materials recycling,
- Introduction of product recycling industry across the EU,
- Strengthening the institutional capacity of local government,
- Strengthening the capacity of waste processing on the basis of association at all levels
- The possibility of inter-state cooperation in the field of ecology

- The suppression of domestic enterprises by foreign companies that have introduced similar innovations long before they come on the market of recycling in the Republic of Serbia,
- Negative impact of certain legal provisions in the field of ecology and local governments.

3. Disposal of waste quantities of the Republic of Serbia in landfills in accordance with EWC-STAT division into categories

To display the professional public the basis for the potential development of the recycling industry in the Republic of Serbia, the authors used publicly available data of the Federal Bureau of Statistics of the Republic of Serbia. This has created a general picture of the amount of waste by categories, and the results are presented in Table 2.

Table No. 2: Total waste generated by groups of waste, from the point of hazardous operation on the ecology of Serbia, EWC-STAT in the Republic of Serbia for the period 2011-2013, in tons.

<table>
<thead>
<tr>
<th>Groups of waste according to the EWC-STAT</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
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<tbody>
<tr>
<td>Mineral and Waste</td>
<td>12,732.526</td>
<td>14,329.800</td>
<td>16,674.243</td>
</tr>
<tr>
<td>The chemical and medical waste</td>
<td>57,154</td>
<td>56,129</td>
<td>85,320</td>
</tr>
<tr>
<td>Waste recycling</td>
<td>1,957</td>
<td>406</td>
<td>234</td>
</tr>
<tr>
<td>The animal and vegetable waste</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Mixed waste</td>
<td>1,772</td>
<td>632</td>
<td>466</td>
</tr>
<tr>
<td>Sludge</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Electronic Equipment</td>
<td>3,381</td>
<td>3,385</td>
<td>1,960</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>12,796.188</strong></td>
<td><strong>14,457.990</strong></td>
<td><strong>16,762.223</strong></td>
</tr>
</tbody>
</table>


The same show that heterogeneous categories of waste can be a chance for the development of a whole group of new processing, the recycling industry in the Republic of Serbia.

3.1. Projection possible pellet production recycling plant and animal waste in the Republic of Serbia
The research presented in this paper was expressed on the basis of irretrievable buried or deposited less hazardous waste the same value through possibly the newly created product, which was the basis for any further design and planning. In a word potential value is great. The authors point to the possible economic effects of processing less hazardous waste to a useful product pellets.

The authors point out the economic effect of applying, if it is less dangerous plant and animal waste processed into pellets. The product has a measurable market value. Display of quantity, value of new products and% on average generated less hazardous waste in the Republic of Serbia, which would be revised based on the total amount of possible processing tons as estimated for the period 2011-2013., The authors are presented in Table 3.

Table No. 3: **The economic projections can be processed with less hazardous waste into a useful product-pellet**

<table>
<thead>
<tr>
<th>The amount of useful waste can be processed in tons</th>
<th>% Average generated less hazardous waste in the Republic of Serbia, which would be revised based on the total amount of possible processing tons as estimated for the period 2011-2013.</th>
<th>The average retail price of compost per ton in mid-2015 in the Republic of Serbia in EUR.</th>
<th>Total economic effects processing reported amounts possible useful processed less hazardous plant and animal waste in the Republic of Serbia, stated at retail average prices from January 2015 in millions. EUR.</th>
</tr>
</thead>
<tbody>
<tr>
<td>16,000</td>
<td>10</td>
<td>182.5</td>
<td>2,92</td>
</tr>
<tr>
<td>32,000</td>
<td>20</td>
<td>182.5</td>
<td>5,84</td>
</tr>
</tbody>
</table>

Source: Author's calculations.

The results shown in Table 3 are based on the conversion and are used for the exchange rates of the National Bank of Serbia on 08.09.2015. The results were such that it was given an indicative budget, i.e. rough estimate of the possible amount of processed waste. The views are given on average retail prices of pelet on the average market in the Republic of Serbia. The views are given in Euros. The study is the author's opinion questionnaire study and can serve as a basis and a broader research. Also, this study points to the importance of creating interstate landfills and exploitation of waste that can be recycled raw materials more industry, not just the product, i.e. The pellet that is presented in this paper.

The social dimension is to find employment opportunities for the population in the affairs of recycling less hazardous waste in the product pellets. With an average salary of around 484 Euros in the third quarter of 2015 in Serbia, and with an annual income of about 5,000 Euros, rough estimates are that it is thus 32,000 tons of waste processed, and the population to achieve revenue of around 2 million. Euro in wages and incomes of various products that create and sell in the market at average equipment that was involved and which could reasonably repaid for a period of 4-5 years.

4. Conclusion

Options and perspectives processing less hazardous waste the Republic of Serbia are based on realistic planning and action imbued with meaning in the systems, especially countries in
transition, such as the Republic of Serbia. The author draws attention to the importance of the processing of discarded materials and transformation into a useful product pellet, which is economic and environmentally and socially useful.

The author points out that the processing of 20% of the pellets creates domestic product of about 6 million, the population receives income from wages of about 2 million Euros. In addition investment in equipment is returned for about 5 years. That’s not all, reduces the amount of waste in tones, but in volume, and extends the life of the landfill to 1/3, and there is immeasurable ecological importance by the human environment.

Thus the author emphasizes the importance of changing the business philosophy of the former economizing the green enterprise, which is based on the foregoing conclusion essentially justified. With this work the authors describe only the initial conclusion regarding the further development of display processing, which in addition to economic views. In a word processing waste into useful products must be treated multidisciplinary.

5. Bibliography