



(online) = ISSN 2285 – 3642

ISSN-L = 2285 – 3642

Journal of Economic Development, Environment and People

Volume 2, Issue 3, 2013

URL: <http://jedep.spiruharet.ro>

e-mail: office_jedep@spiruharet.ro

Recycling of the MSW in the Slovak Republic

Ing. Mariana Dubravská, PhD.¹

University of Prešov, Slovakia

Abstract. The Paper aims at recycling of the MSW in the condition of Slovak Republic. Waste management is facing big criticism in Slovakia. It is one of the environmental policies that is written in political strategies but not taken seriously. Environmental policy has not been given any priority in the government for many years. The changes came together with EU membership. Standard scientific research methods included synthesis, analysis and comparative method.

Keywords: Waste management, recycling, MSW, Slovak Republic

JEL Codes: Q20, Q28

1. Introduction

Resources are the backbone of every economy. In using resources and transforming them, capital stocks are built up which add to the wealth of present and future generations.

On 21st December 2005 the European Commission proposed a Strategy on the Sustainable Use of Natural Resources used in Europe. The objective of the strategy is to reduce the environmental impacts associated with resource use and to do so in a growing economy. Focusing on the environmental impacts of resource use will be a decisive factor in helping the EU achieves sustainable development [European Commission, 2014].

Waste management programs worked out particularly for the waste management field are the most important conceptual materials. They are elaborated at the national and regional levels as well as the level of individual waste producers.

2. Waste management in the Slovak Republic

Waste management is facing big criticism in Slovakia. It is one of the environmental policies that is written in political strategies but not taken seriously. The national waste management plan had set to reduce the landfill waste down to 13% by 2010. However, current situation is emerging and far behind the average of EU countries. Only 3% of the waste is being recycled. 83% of all the waste is landfilled, 10%

¹ Corresponding author – Tel.: +421 (0)51 777 59 24, E-mail address: mariana.dubravska@unipo.sk



(online) = ISSN 2285 – 3642

ISSN-L = 2285 – 3642

Journal of Economic Development, Environment and People

URL: <http://jedep.spiruharet.ro>

e-mail: office_jedep@spiruharet.ro

burned and 5% composted. The amount of waste produced per person is 2.4 ton per year while only 26 kg per person is recycled. The number of black landfills is also growing – there are around 20 thousand black landfills around the cities.

Missing motivation for recycling is caused by insufficient legislation support because processing of recycled waste is several times more expensive than handling general waste. Prices of raw materials are low and at the same time there are no fees for landfills.

Nevertheless, since 2010 each municipality is obliged to do the minimal waste recycling of plastic, glass, metal and paper. Mandatory separation of biological waste was moved to 2013. This regulation is a reflection of the country commitment towards the aims of European Union. Also several schools are integrated into educational projects for recycling. Recycling fund is funding municipalities for the purpose of waste recycling development. The fund collects financial means from commodity producers in order to share them among the companies that focus on recycling. In spite of the fund that helps municipalities to start recycling waste, it faces accusation of corruption and missing transparency when deciding for the companies that can use money from the fund [Sustainable Event Alliance, 2014].

The current government sets as the most important aim the improvement of the life standard quality of the population while they emphasize the ethical principles. Government undertakes for growth in competitiveness through transparent processes. Successful realization of these commitments would be an important turning point after constant changes in law and high level of corruption led to unproductive economic environment and high cost.

2.1. Waste management in the Slovak Republic

Waste management in the Slovak Republic based on 3 international convention strictly follows EU legislation – 5 main Acts:

- Waste Act,
- Act on Landfill Tax (charges for waste disposal),
- Act on Persistent Organic Pollutants,
- Act on Packaging,
- Act on the management of waste form extractive industries.

Waste management budget in the Slovak Republic is created by:

- public sources of funding,
- EU Structural funds,
- Environmental Fund,
- private sources of funding,
- Recycling Fund,
- sources from waste producers and holders,
- taxes of waste disposals at landfills.

Measures of the waste management in the Slovak Republic are focused to minimize the impact of waste on human health and the environment:



(online) = ISSN 2285 – 3642

ISSN-L = 2285 – 3642

Journal of Economic Development, Environment and People

Volume 2, Issue 3, 2013

URL: <http://jedep.spiruharet.ro>

e-mail: office_jedep@spiruharet.ro

- to promote the reuse and recycling of municipal waste,
- to reduce landfilling of biodegradable municipal waste,
- to achieve the objectives for bio waste,
- to achieve the objectives for selected waste streams [Ministry of Environment of the Slovak Republic, 2013].

2.2. MSW management in the Slovak Republic

Main points regarding MSW management in Slovakia:

- According to the latest data , 75 % of MSW generated in Slovakia was still landfilled in 2011,
- Around 10 % of MSW in Slovakia is incinerated with energy recovery. There are two incineration plants for MSW in Slovakia,
- Municipalities are responsible for MSW management in their administrative territories,
- Around 7 % of municipal waste is collected selectively. Existing recycling infrastructure is sufficient, but separate collection systems need to be improved further,
- The total recycling rate of MSW is still very low. According to present trends, an exceptional effort will be required to meet the EU requirement of 50 % MSW recycling in 2020,
- According to the amended Waste Act the municipalities in Slovakia were under an obligation to introduce separate collection for paper wastes, plastic wastes, metallic wastes, glass wastes and biodegradable waste by January 2010 [European Environment Agency, 2014].

MSW can represent a considerable potential resource. In recent years, the global market for recyclables has increased significantly. By considering waste disposal options, the waste management sector follows a generally accepted hierarchy. The hierarchy responds to financial, environmental, social and management consideration [Worldbank, 2012].

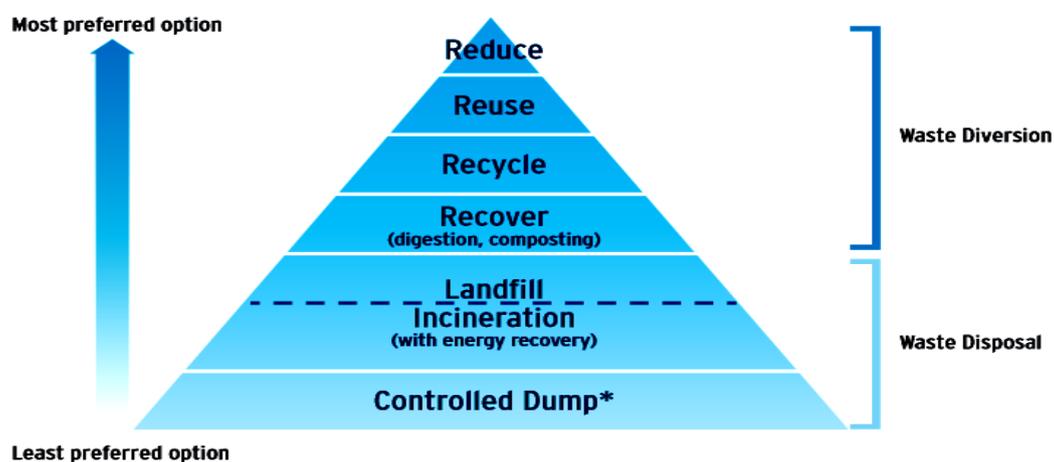


Fig.1.Waste hierarchy, Source: Worldbank, 2012



(online) = ISSN 2285 – 3642

ISSN-L = 2285 – 3642

Journal of Economic Development, Environment and People

URL: <http://jedep.spiruharet.ro>

e-mail: office_jedep@spiruharet.ro

We have focused on recycling of the MSW in the Slovak Republic. Environmental policy has not been given any priority in the government for many years. The changes came together with EU membership and European legislation when regulations were incorporated in the national legislation, too. This is shown in Fig. 2 where we can see development of recycling of MSW in the Slovak Republic from 2001 till 2010 [Slovak Environmental Agency, 2011].

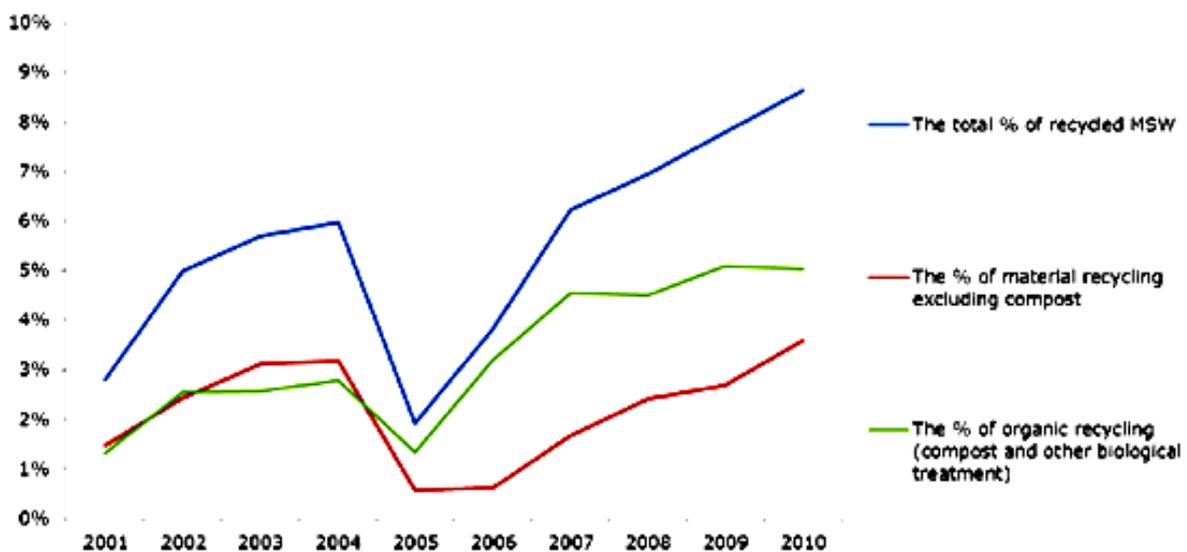


Fig. 2: Recycling of MSW in Slovakia

Source: Ministry of Environment of the Slovak Republic, 2013

Figure 2 shows the development of recycling of MSW in Slovakia in terms of total recycling, material recycling and organic recycling (composting and other biological treatment). As illustrated, the recycling level is low but after 2001 there has been a positive trend in the recycling of MSW, with a considerable drop in 2005. The positive trend has since continued, with the total percentage of recycled MSW increasing from 3 % in 2001 to 9 % in 2010. In absolute terms recycling of MSW increased from 36 000 tonnes in 2001 to 156 000 tonnes in 2010 [European Environment Agency, 2014].

According to the calculation done by Copenhagen Research Institute, we can predict recycling of MSW in the Slovak Republic to the year 2020. This prediction is represented by Figure 3.

According to the country assessment on waste provided by Slovakia (EEA, 2010), in the coming years, a slight increase in municipal waste generated in Slovakia can be expected. The amount of material recovery including composting and energy recovery of municipal waste is very low and did not substantially approach the target set in the WMP until 2010. Slovakia therefore sees a need to extend separate collection as well as improve the level of home composting [EEA, 2010].



(online) = ISSN 2285 – 3642

ISSN-L = 2285 – 3642

Journal of Economic Development, Environment and People

Volume 2, Issue 3, 2013

URL: <http://jedep.spiruharet.ro>

e-mail: office_jedep@spiruharet.ro

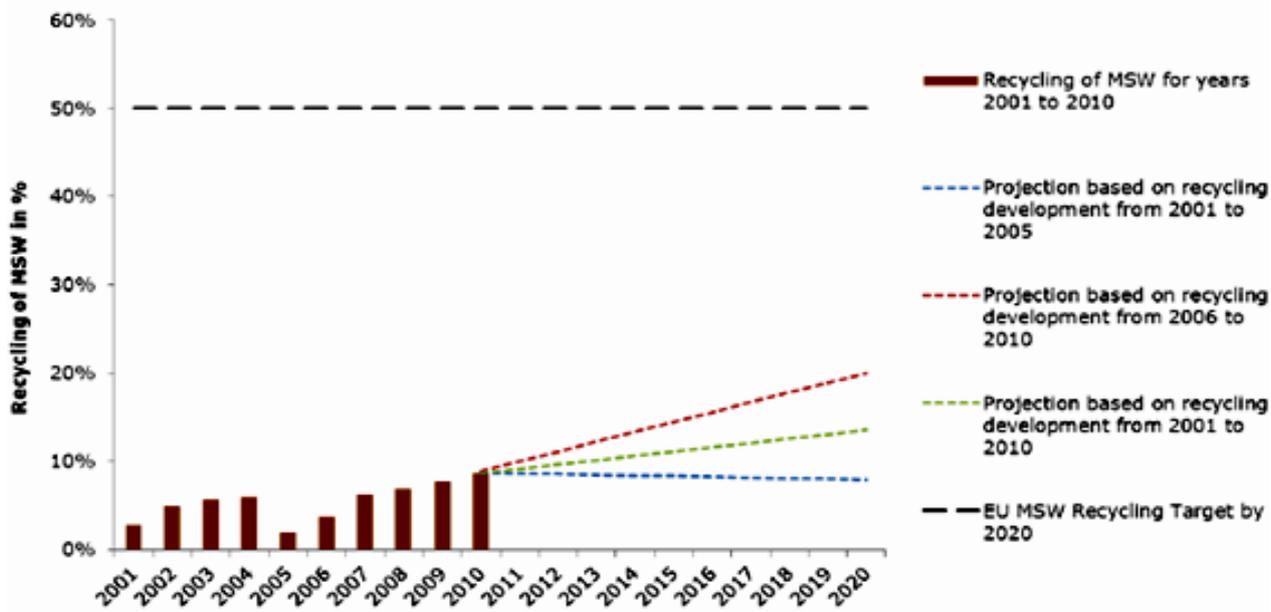


Fig. 3: Future recycling of MSW in Slovakia
Source: Ministry of Environment of the Slovak Republic, 2013

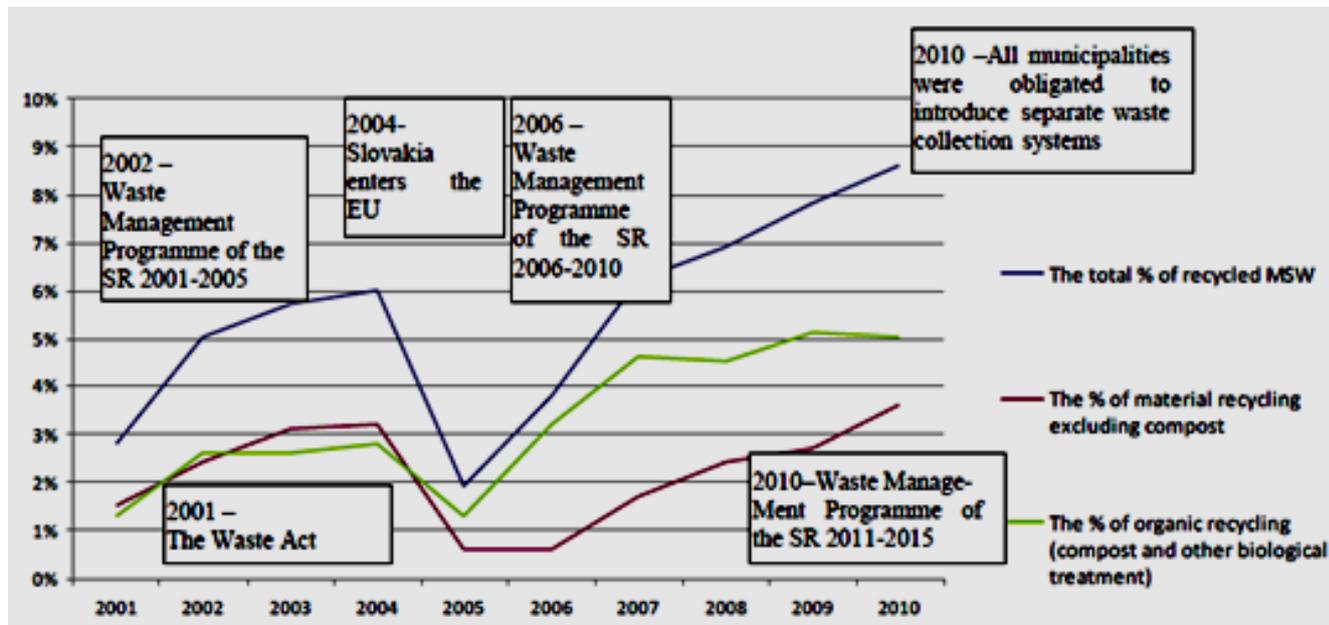


Fig. 4: Recycling of MSW in Slovakia and important policy initiatives
Source: Ministry of Environment of the Slovak Republic, 2013

3. Conclusion



(online) = ISSN 2285 – 3642

ISSN-L = 2285 – 3642

Journal of Economic Development, Environment and People

URL: <http://jedep.spiruharet.ro>

e-mail: office_jedep@spiruharet.ro

Although, the Environmental policy in the Slovak Republic has not been given any priority in the government for many years, the changes came together with EU membership and European legislation when regulations were incorporated in the national legislation, too. Waste management in the Slovak Republic based on 3 international conventions strictly follows EU legislation. These changes are clear in issues of recycling of the MSW. In absolute terms recycling of MSW increased from 36 000 tones in 2001 to 156 000 tones in 2010.

The total recycling rate of MSW is still very low. According to present trends, an exceptional effort will be required to meet the EU requirement of 50 % MSW recycling in 2020. Therefore, many important policy initiatives have become active during the last period.

4. References

- [1] D. Aleksic, Municipal waste management in Slovakia. [online, quoted to 20.05.2014]. Available at: <http://www.eea.europa.eu/publications/managing-municipal-solid-waste/slovakia-municipal-waste-management>
- [2] European Comission, [online, quoted to 29.05.2014]. Available at: <http://ec.europa.eu/environment/natres/>
- [3] D. Jurik, Waste management plan of Slovakia for2011-2015. Bratislava: Ministry of Environment of the Slovak Republic, 2013, 14p. [online, quoted to 25.05.2014]. Available at: <http://www.unep.org/ietc/Portals/136/Other%20documents/NWMS/Republic%20of%20Slovak-Waste%20management%20plan%20of%20Slovakia%202011-2015.pdf>
- [4] S. Jurkovicova, The current situation in waste management – Slovak Republic. Bratislava: Slovak Environmental Agency, 2011, 21 p., [online, quoted to 25.05.2014]. Available at: http://www.siea.sk/materials/files/medzinarodne/aktuality_2011/2_W2E_Slavka_Jurkovicova.pdf
- [5] Ministry of Environment of the Slovak Republic, [online, quoted to 20.05.2014]. Available at: <http://www.minzp.sk/en/about-us/ministry-environment/ministry-environment-sr.html>
- [6] Slovak Environmental Agency. [online, quoted to 20.05.2014]. Available at: <http://www.sazp.sk/slovak/periodika/sprava/psr/waste/Newsletter/waste.htm>
- [7] Sustainable Event Alliance, [online, quoted to 30.05.2014]. Available at: <http://sustainable-event-alliance.org/slovakia/slovakia/waste-management/>
- [8] <http://ec.europa.eu/environment/waste/framework/pdf/LT-roadmap-final.pdf> [online, quoted to 20.05.2014].
- [9] <http://en.wikipedia.org/wiki/recycling> [online, quoted to 20.05.2014].
- [10] <http://siteresources.worldbank.org/INTURBANDEVELOPMENT/Resources/336387-1334852610766/Chap7.pdf> [online, quoted to 20.05.2014].
- [11] <http://www.scribd.com/doc/151410224/Germany-MSW> [online, quoted to 30.05.2014].
- [12] http://scp.eionet.europa.eu/facts/factsheets_waste/Slovakia [online, quoted to 30.05.2014].