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Recycling of the MSW in the Slovak Republic

Ing.

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Abstract.

The Paper aims at recycling of the MSW in the condition of Slovak Republic. 2
WASTE MANAGEMENT IS FACING BIG CRITICISM IN SLOVAKIA. IT IS
ONE OF THE ENVIRONMENTAL POLICIES THAT IS WRITTEN IN
POLITICAL STRATEGIES BUTnot 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 RepublicJEL Codes:

Q20, Q281.

Introduction 3 RESOURCES ARE THE BACKBONE OF EVERY ECONOMY.

In using resources and transforming them, capital 3 STOCKS ARE BUILT UP WHICH ADD TO THE WEALTH OF PRESENT AND FUTURE GENERATIONS.

However, the dimensions of 4 OUR CURRENT RESOURCE USE ARE SUCH THAT THE CHANCES OF FUTURE GENERATIONS - AND THE DEVELOPING COUNTRIES - TO

have access to their fair share of scarce resources are endangered.

Moreover, the consequences of our 4 RESOURCE USE IN TERMS OF IMPACTS
ON THE ENVIRONMENT MAY INDUCE SERIOUS DAMAGES THAT GO
BEYOND THE

carrying capacity of the environment.

4 THESE EFFECTS RISK BEING AGGRAVATED ONCE THE DEVELOPING WORLD HAS 3 TAKEN UP GROWTH AND RESOURCE USE SIMILAR TO

THE INDUSTRIALISED COUNTRIES.

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 3 ASSOCIATED WITH RESOURCE USE AND TO DO SO IN A GROWING ECONOMY.

Focusing on the environmental impacts of 3 RESOURCE USE WILL BE A DECISIVE FACTOR IN HELPING THE EU ACHIEVE SUSTAINABLE DEVELOPMENT.

Waste management programmes 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 thelevel of individual waste producers.

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2.

5 WASTE MANAGEMENT IN THE SLOVAK REPUBLIC 2 WASTE MANAGEMENT IS FACING BIG CRITICISM IN SLOVAKIA.

It is one of the environmental policies that is **2 WRITTEN IN POLITICAL STRATEGIES BUT NOT TAKEN SERIOUSLY.**

6 THE NATIONAL WASTE MANAGEMENT PLAN HAD SET TO 2 REDUCE THE LANDFILL WASTE DOWN TO 13% BY 2010.

HOWEVER, CURRENT SITUATION IS EMERGING AND FAR BEHIND THEaverage of EU countries.

- 2 ONLY 3% OF THE WASTE IS BEING RECYCLED. 83% OF ALL THE WASTE IS LANDFILLED, 10%burned and 5% composted.
- 2 THE AMOUNT OF WASTE PRODUCED PER PERSON IS 2.4 TON PER YEAR WHILE ONLY 26 KGper person is recycled.
- 2 THE NUMBER OF BLACK LANDFILLS IS ALSO GROWING THERE ARE AROUND 20 THOUSAND BLACKlandfills around the cities.
- 2 MISSING MOTIVATION FOR RECYCLING IS CAUSED BY
 INSUFFICIENT LEGISLATION SUPPORT BECAUSE PROCESSING OF

RECYCLED WASTE IS SEVERAL TIMES MORE EXPENSIVE THAN HANDLING GENERAL WASTE.

7 PRICES OF RAW MATERIALS ARE 2 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,

- 8 METAL AND PAPER.
- 2 MANDATORY SEPARATION OF BIOLOGICAL WASTE WAS MOVED TO

2013. This regulation is a **2 REFLECTION OF THE COUNTRY COMMITMENT TOWARDS THE AIMS OF EUROPEAN UNION.**

Also several schools are 2 INTEGRATED INTO EDUCATIONAL PROJECTS FOR RECYCLING.

RECYCLING FUND IS FUNDING MUNICIPALITIES FOR THE PURPOSE 9
OF WASTE RECYCLING DEVELOPMENT.

2 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 2 START RECYCLING WASTE, IT FACES ACCUSATION OF CORRUPTION AND MISSING TRANSPARENCY WHEN DECIDING FOR THE

companies that can use money from the fund.

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 incompetitiveness through transparent processes.

Successful realization of these commitments would be animportant turning point after constant changes in law and high level of corruption led to unproductive

economic environment and high cost.

2.1.

5 WASTE MANAGEMENT IN THE SLOVAK REPUBLICWaste management in the Slovak Republic based on 3 international convention strictly follows EU

6	LEGISL	ATION -	5 MAIN	ACTS:
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- Waste Act,
- 6 ACT ON LANDFILL TAX (CHARGES FOR WASTE DISPOSAL),
- ACT ON PERSISTENT ORGANIC POLLUTANTS,
- Act on Packaking,
- 6 ACT ON THE MANAGEMENT OF WASTE FORM EXTRACTIVE INDUSTRIES.

Waste management budget in the Slovak Republic is created by:

- 6 PUBLIC SOURCES OF FUNDING,
- EU STRUCTURAL FUNDS,

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- Environmental Fund,
- 6 PRIVATE SOURCES OF FUNDING,
- Recycling Fund,

- 6 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

- 10 WASTE ON HUMAN HEALTH AND THE ENVIRONMENT:
- 6 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.

2.2.

MSW management in the Slovak Republic 11 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 11 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.

12 MSW CAN REPRESENT A CONSIDERABLE POTENTIAL RESOURCE.

IN RECENT YEARS, THE GLOBAL MARKET FOR recyclabes has increased significantly.

By considering waste disposal options, the waste management sector 12 FOLLOWS A GENERALLY ACCEPTED HIERARCHY.

THE HIERARCHY RESPONDS TO FINANCIAL, ENVIRONMENTAL, SOCIAL ANDmanagement consideration.

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Fig.1. Waste hierarchy Source:

Worldbank, 2012We 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. Fig.

2: 11 RECYCLING OF MSW IN SLOVAKIASource:

6 MINISTRY OF ENVIRONMENT OF THE SLOVAK REPUBLIC, 2013 11 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(online) = ISSN 2285 - 3642

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11 LEVEL IS LOW BUT AFTER 2001 THERE HAS BEEN A POSITIVE TREND IN THE RECYCLING OF MSW, WITH A CONSIDERABLE

drop2 in 2005.

11 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.

Fig.

- 3: 11 FUTURE RECYCLING OF MSW IN SLOVAKIASource:
- 6 MINISTRY OF ENVIRONMENT OF THE SLOVAK REPUBLIC,
 2013According 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. 11 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 11 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).

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Fig.

4: 13 RECYCLING OF MSW IN SLOVAKIA AND IMPORTANT POLICY INITIATIVESSource:

6 MINISTRY OF ENVIRONMENT OF THE SLOVAK REPUBLIC, 20133.

ConclusionAlthough, 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.

8 WASTE MANAGEMENT IN THE SLOVAK 6 REPUBLIC BASED ON 3 INTERNATIONAL CONVENTION STRICTLY FOLLOWS EU LEGISLATION.

These changes are clear in 11 ISSUES OF RECYCLING OF THE MSW.

In absolute terms recycling of MSW increased from 36 000 tonnes in 2001to 156 000 tonnes in 2010.

11 THE TOTAL RECYCLING RATE OF MSW IS STILL VERY LOW.

According to present trends, an exceptional effort will 11 BE REQUIRED TO MEET THE EU REQUIREMENT OF 50 % MSW RECYCLING IN 2020.

Therefore, many important policyinitiatives have become active during the last period.

4.

References[1] ALEKSIC, D.

11 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: 10

HTTP://EC.EUROPA.EU/ENVIRONMENT/NATRES/[3] JURIK, D.

6 WASTE MANAGEMENT PLAN OF SLOVAKIA FOR2011-2015. Bratislava: 6 MINISTRY OF ENVIRONMENT OF THE SLOVAKRepublic, 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

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Volume 3, Issue 2, 2014

URL:

http://jedep.spiruharet.ro e-mail: office jedep@spiruharet.ro7

[4] JURKOVIČOVÁ, S.

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_Jur koviova.pdf

6 [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

14 [6] SLOVAK ENVIRONMENTAL AGENCY.

[online, quoted to 20.05.2014]. Available at: 15

HTTP://WWW.SAZP.SK/SLOVAK/PERIODIKA/SPRAVA/PSR/WASTE/NE WSLETTER/WASTE.HTM

[7] SUSTAINABLE EVENT ALLIANCE.

[online, quoted to 30.05.2014]. Available at: http://sustainable-event-alliance.org/slovakia/slovakia/waste-management/

Citations (15/15)

- 1 Owner: Prof. univ. dr. Manuela Epure; Submitted: Mon, Feb 18 2013, 10:28 AM; Filename: Adamisin_Huttmanova_JEDEP.docx
- 2 http://sustainable-event-alliance.org/slovakia/slovakia/waste-management/
- 3 http://ec.europa.eu/environment/natres/index.htm
- 4 Another student's paper Institution: University College Dublin
- 5 http://www.justiceandenvironment.org/ files/file/2011%20waste%20plan%20SK.pdf
- 6 http://www.unep.org/ietc/Portals/136/Other%20documents/NWMS/Republic%20of%20Slovak-Waste%20management%20plan%20of%20Slovakia%202011-2015.pdf
- 7 http://www.compostnetwork.info/compostnetwork/braun/country-reports.html
- 8 http://ec.europa.eu/environment/waste/framework/pdf/LT Roadmap FINAL.pdf
- 9 http://en.wikipedia.org/wiki/Recycling
- 10 http://www.eumonitor.nl/9353000/1/j9vvik7m1c3gyxp/vimbaiit54ys
- 11 http://www.eea.europa.eu/publications/managing-municipal-solid-waste/slovakia-municipal-waste-management
- 12 http://siteresources.worldbank.org/INTURBANDEVELOPMENT/Resources/336387-1334852610766/Chap7.pdf
- 13 http://www.scribd.com/doc/151410224/Germany-MSW
- 14 http://ec.europa.eu/environment/waste/framework/pdf/SK factsheet FINAL.pdf
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METAL AND PAPER

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glass, plastics, paper and metal)

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WASTE ON HUMAN HEALTH AND THE

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(b) the adverse impacts of the generated waste on

the environment and human health

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http://scp.eionet.europa.eu/facts/factsheets_waste/ Slovakia

http://www.sazp.sk/slovak/periodika/sprava/index.h tml Eurostat (2002)