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WASTE MANAGEMENT IN POST-SOVIET COUNTRIES: HOW FAR AWAY FROM EU?

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INTRODUCTION

- The MSWM systems in the following post-soviet countries were analysed: Belarus, Ukraine, Russia, Kazakhstan, Moldova and Georgia.
- The main characteristics of the MSWM system in the mentioned countries are
 - (1) landfilling as a main method of waste management;
 - (2) tariff policy based on the “normative of waste generation” for the waste collection and removing per capita;
 - (3) significant over-use of the equipment;
 - (4) under-development of the recycling capacity;
 - (5) littering of the urban areas;
 - (6) development of the informal and illegal sector of the collection and treatment of the recyclables.

METHODS AND MATERIALS

- The research is based on the **BiPRO approach** (BiPRO, 2012) developed under the EU project “Support to Member States in improving waste management based on assessment of Member States’ performance”.
- The list of the criteria was developed based on the EU Landfill directive (1999) and Framework on waste management (2008).
- Criteria were divided on the 5 groups:
 - (1) compliance with the waste management hierarchy reflecting the real situation;
 - (2) existence and application of legal and economic instruments to support waste management according to the waste hierarchy;
 - (3) existence and quality of an adequate network of treatment facilities and future planning for municipal waste management;
 - (4) fulfilment of the targets for diversion of biodegradable municipal waste from landfills and
 - (5) number of infringement procedures and court cases concerning non-compliance with the EU waste legislation.
- The fifth group of the criteria was not assessed, and the final scores of the EU countries from (BiPRO, 2012) were re-calculated without the mentioned criteria group.
- The initial value of every criterion was converted to points (0, 1 or 2) according to established threshold scores (BiPRO, 2012).

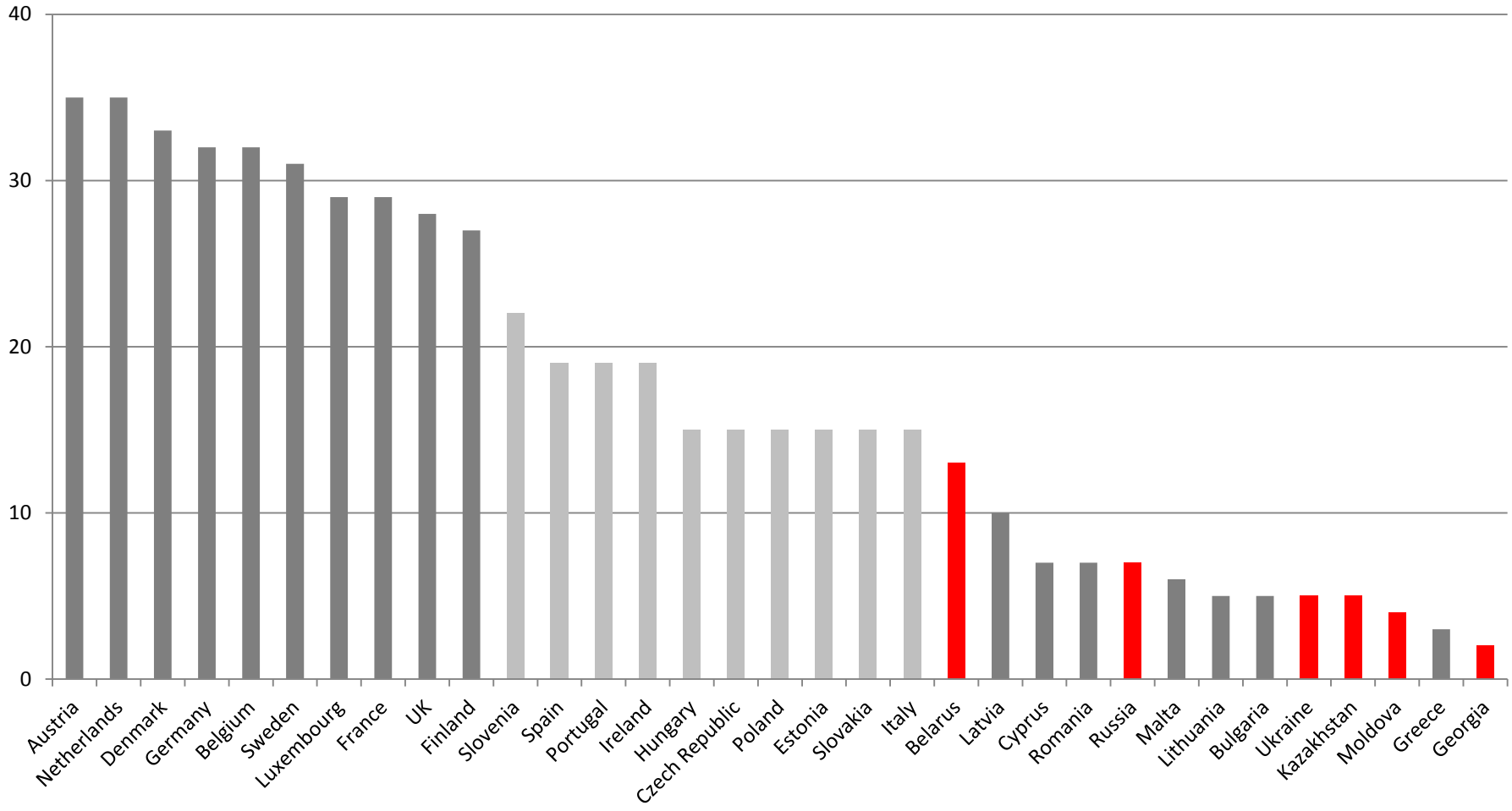
Results of BiPRO assessment for post-socialistic countries

<i>Indicator</i>	<i>Belarus</i>	<i>Russia</i>	<i>Kazakhstan</i>	<i>Ukraine</i>	<i>Moldova</i>	<i>Georgia</i>
1 Compliance with the waste management hierarchy reflecting the real situation	7	4	2	4	2	2
2 Existence and application of legal and economic instruments to support waste management according to the waste hierarchy	1	1	1	0	0	0
3 Existence and quality of an adequate network of treatment facilities and future planning for municipal waste management	3	2	2	0	2	0
4 Fulfillment of the targets for diversion of biodegradable municipal waste from landfills	0	0	0	0	0	0
Overall score	11	7	5	4	4	2

- The common issue for the post-soviet countries is **the lack of the accurate estimations of the total waste generation** due to a specific of the statistic recording.
- **Approved national strategies on MSW management is one of the advantages of Belarus, Ukraine, Russia, Moldova and Georgia.**
- **The weak component of the MSWM system in all countries is the forecasting and planning in the waste sector.**
- **Economic instruments for MSWM regulation are underdeveloped in all overviewed countries.** The fee for the landfilling is very low in the compare with EU countries (significantly less than 35 euro per ton).

- **There is no ban for landfilling of MSW** (only restrictions for the landfilling of several kind of waste and recyclables).
- **Many landfills do not meet modern environmental requirements or do not have all necessary documents and permissions.**
- **The level of the recycling in Ukraine, Russia and Kazakhstan is less than 10 %, and in Belarus is about 20 %.**
- **Recycling plants in mentioned countries meet the similar problems:**
 - (1) the high cost of recycling products with relatively low their quality;
 - (2) the poor quality of the waste for the recycling due to the lack or the ineffective waste sorting;
 - (3) the prevalence of the manual labor with involving marginal groups,
 - (4) the competition with illegal recycling sector.
- **Biodegradable waste is not a point for MSW management in the analyzed countries.**

Comparisons



- Essential shortcomings of the MSWM systems in analysed countries are:
 - (1) insufficient legislation and regulation;
 - (2) undeveloped capacity for recycling and treatment;
 - (3) the lack of the effective economic instruments for the stimulating the recycling and reducing the waste generation.
 - (4) not 100-% coverage by the formal system of the waste collection and removing;
 - (5) governance gaps and implementation deficits of the local waste management plans and programs.
- MSWM system saves the list of soviet features (the service fees, the organization of the waste collection, removing, treatment and technic regulation).
- A number of the effective soviet tools and practices have been lost (the collection system for recyclables, the collection of food waste, awareness raising activities, etc.)



2008 - 2010
Main changes in legislation => EU course

2004
National MWM strategy (EBRD, COWI)
National MWM Programme 2002-2011
Modernization of legislation: Landfill's requirements
Waste separate collection

From 1991
Transition from municipal to mixed or private operation
"chaos"

.... 1991
USSR member
Common national system
Only municipal operators (collection, transportation, landfilling)

2016
National
Strategy



2004

2008

2010

2011

2016

GENERAL DATA

- 45 m. m³ /year or 10 m. tones/year
- 6 000 landfills and dumpsites, >9 th. hectares
- Coverage of MSWM services 77%
- Around 30 th. unauthorized dumps (approx. 1 th. hectares) are formed every year;
- Low quality of services and the leak of MWM in rural communities
- Existing landfills and dumpsites «black boxes»
- The current costs of MWM in Ukraine in 2015 - 1,65 billion UAH (57,4 millions EUR)

TRANSPORTATION

- >1,1 th. operators (25% private)
- ~ 15 000 employers
- 3.4 thousand vehicles (rate of depreciation 67%)
- Average tariff – 57, 65 UAH/cub. m (~ 2 EUR)
- Monthly payment (example Kharkiv City) – 0.35 EUR/person
- Population expenditure on SWM – 0.2% of average income
- Main problems – services in rural areas

RECYCLING&TREATMENT

- SEPARATE COLLECTION of MSW has been implemented in almost 400 settlements
- 20 new sorting stations, 22 under construction
- 1 incineration plant (Kiev, in operation from 1983), incinerated 20% of the WSW generated in Kyiv. Plant capacity does not used in full
- 3 incineration experimental mobile facilities (low capacity)
- In 2015, these enterprises are used almost 6% of MSW: 2,73 % WtE, 3,2 % recycling
- Existing market of recyclable materials - at least 200 material recovery facilities which could take MSW components as raw materials

CHANGES IN LEGISLATION IN RESPECT OF THE EU DIRECTIVES

- After the signing of the Association Agreement with EU, the Cabinet of Ministers of Ukraine approved an Action Plan for the implementation of the Association Agreement between the European Union and its Member States, of the one part, and Ukraine, of the other part, in the years **2014-2017 approved the main objectives to be met by Ukraine**
- To achieve this objectives, Ministry of Environment of Ukraine developed and approved by the Cabinet of Ministers of Ukraine plans of implementing the regulations of EU laws and requirements in the field of waste management, including amendments to the legislation on waste management in accordance with EU Directives

KEY PILLARS

- Planning of MWM according to the standards of the European Union
- Development of investment potential and markets for waste management
- Respecting the EU waste 'hierarchy'
- Full cost-recovery of MSW management operations
- Implementation of Extended Producer Responsibility for certain waste streams - Packaging waste, Waste electrical and electronic equipment
- Inter-municipal cooperation arrangements - Landfill sites, waste sorting lines, transfer stations, etc.
- Extension of MSW separate collection of dry recyclable - Two-container/bin system
- Closure of poor standard landfills => course to the regional EU-compliant landfills

NATIONAL SOLID WASTE MANAGEMENT STRATEGY AND ACTION PLAN FOR UKRAINE

"CHANGING OUR BEHAVIOUR" SUMMARY OF KEY MEASURES

- Increase in organised MSW **collection service** coverage of the population to 90% by 2030
- Construction **approximately 100-150**, EU-compliant **landfills** based on the waste catchment areas organised through inter-municipal co-operation
- Closure of the existing **6,000 plus landfills** and dumpsites
- Construction of a network **of transfer stations** based on the defined waste catchment areas
- Progressive extension of MSW **separate collection of recyclables**, within a two-container system, for 'dry' recyclables, to cover approximately **53%** of the total population by 2030
- Construction of about **91 additional waste sorting lines**
- **Home composting** to cover **2.5** million households - 30% of the rural population and 10% of the urban population of Ukraine, by 2030



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