



REPUBLIC OF SLOVENIA
COURT OF AUDIT

Analysis of survey on treating municipal waste

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Objectives of the survey

- **Obtain data** that are not available at the ministry **from municipalities and public companies responsible for landfilling** of municipal waste about municipal waste management, but are necessary to evaluate reliability of evaluations and goals assessments done by the ministry;
- **Use collected data to show:**
 - **differences** among municipalities in achieving set goals;

Objectives of the survey

- **research interdependence of different factors** which may influence achieving the set goals (such as: characteristics of area of waste collection, infrastructure and methods of waste collection to proportions of separately collected and landfilled waste);
- **research waste streams** which are destined for treatment and are passed through different dealers
- **explain unusual „touring of waste“** around the country before it is brought to landfills;
- determine whether ministry's **assessment of goal-achievement is reliable**

Reasons for the survey

First audit on municipal waste management (audit report: august 2009) revealed **a lot of deficiencies and inefficiencies in the system of municipal waste management**. One of the most important and fundamental findings:

- state was responsible for achieving goals set by the EU and national waste legislative, but **didn't have reliable, complete and up-to-date basic data to evaluate whether the goals were actually achieved or not**, with an adequate degree of reliance

Reasons for the survey

- the main cause for the above statement: the state has shifted **responsibility for collection, treatment and disposal of municipal waste to municipalities**, but didn't established efficient controls over the required actions and the reporting of data (result: incompleteness, poor quality, inadequacy of data);
- in the follow-up audit (in progress; expected publishing: January/February 2015) we want **to reveal more detailed data about differences in state's data, assumptions and evaluations and actual conditions in municipalities**;

Reasons for the survey

- municipal waste management is a very popular topic in Slovenia –interest from the Parliament, experts and general public, because majority of required corrective measures and recommendations from the first audit were not taken into account appropriately and **the same mistakes and inefficiencies are continuing**; evidence that some municipalities don't respect state's requirements but **state doesn't recognizes and penalizes such irregularities** (e.g.: unknown routes of waste because of numerous dealers with waste before it is landfilled).

Presentation of the survey

Two questionnaires:

- Questionnaire to municipalities (212):
 - Questionnaire to public companies which manage landfills of municipal waste (33)
- **Form of QM: excel document with eight sections of questions:** organization of collection service, organization of separate collection, factors that may influence separate collection, contracts with waste dealers, landfilling, participating in building treatment facilities, organizing waste treatment, methods of stimulating separate collection;

Presentation of the survey

- **Form QC: Excel document with four sections of questions:** data on quantities of disposed municipal waste, treatment procedures before waste disposal, proportions of biodegradable components in landfilled waste, and prices for landfilling
- **all municipalities (212), all companies (33) included:** manageable size; important to include all to show differences among municipalities; to show unreliable (unreliable/forged) data

Presentation of survey

- **Numeric data, Yes/No questions, multiple choice, descriptive answers;**
- **A bit of automation: formulas for calculations included in the forms;**
- **Distributed and collected by e-mail**

Results/impact of survey

- **differences among data from state and municipalities identified** (e. g.: state's data for share of recycling overestimated; share of landfilling underestimated);
- **regression analysis: obvious correlation between factors** (e.g. characteristics of area of waste collection, infrastructure and methods of waste collection to proportions of separately collected and landfilled waste);

Results/impact of survey

- identified **municipalities deviating from obvious correlation** (suspicion of forged data);
- **unravel waste dealers, resale of waste** between them and **unjustified costs** for households;
- Adjustment and correction of data and evaluations done by ministry; **apply better/frequent controls over received data**

Lessons learned

- **Long process: designing of questionnaires: 1 month; collecting answers: 1,5 months; processing data 1,5 months**
- **Processing of answers/data slow, but gave a better insight into municipal waste management; a large portion of audit findings is based on survey; invaluable basis for requiring corrective actions and recommendations**

Thank you for your attention!

Any questions?