

3. Waste management

OVERVIEW

The current situation of waste management is not satisfactory. Formal commitments are either partially fulfilled or unfulfilled completely – which is blocking the progress in this area.

New legislation is still in the provisional phase; adopted legislation is faced with significant barriers on the implementation level. The two key documents intended to replace the old ones are still in preparation phase. The new Waste Management Strategy is under development as well as amendment to the Law on Waste Management. Drafting of the new Waste Management Strategy is taking place without proper public debate over the results, strengths and weaknesses of the previous Strategy (2010-2019). Although the Draft Law on Amendments to the Law on Waste Management was subject to public hearing back in October 2013 and according to the Action Plan for meeting the recommendations of the European Commission in February 2014 the adoption of this law was planned for the first quarter of the same year, the current stage of the development is unknown.

Full compliance with the Waste Framework Directive has not been achieved and the implementation of other adopted legislation facing significant barriers in implementation.

Following the adoption of the current Law on Waste Management (Official Gazette no. 36/09, 88/10) and the Law on Packaging and Packaging Waste (Official Gazette no. 36/09), by-laws that closely regulate this area were also adopted and are still valid.

The conclusion that stems from the deep analysis of the local waste management plans of many different local municipalities is that they copied each other at the local level and misfit local specificities. Consequently, their implementation is questionable. Also, there are significant differences in data that local municipal utilities submit to Environmental Protection Agency and the data in Local waste management plans that are produced for the same municipality. Overall the quality of the data submitted by public communal utilities is very low, which therefore threatens the national statistics and future documents. For that reason, one must determine the amount of municipal, commercial and industrial waste and then determine the amounts of waste that are non-hazardous, inert and hazardous.

Reported data by local municipal utilities on the composition and quantity of municipal waste, as well as the types of waste collected separately, is still unreliable. Despite numerous trainings, manuals and instructions given by Environmental Protection Agency (EPA) for the methodology of collecting and reporting data, local utilities for waste collection did not show any improvement.

The major problem is that the waste is not being collected from the entire territory of the municipality. There is also no adequate separation of waste so that municipal waste can easily contain other types of waste (including hazardous waste) which prevents exact and precise determination of the types and amount of waste.

It was identified on several hotspots that animal and slaughterhouse waste is being disposed on public dumpsite (Municipality of Sjenica, Municipality of Priboj, and Municipality of Prijepolje). Those dumpsites are located on the bank of the rivers.

It is worth noting that the technical equipment of public utility companies (PUCs), especially in undeveloped municipalities, is inadequate or outdated and hampers the job of collecting waste and the remedy of "illegal dumps" is usually also within the competence of the PUCs. According to the data of the Environmental Protection Agency there are more than 3,000 illegal landfills in Serbia.

The amount of waste disposed of in landfills is not being reduced. The share of organic components in municipal waste is around 50%, while the separation of recyclable waste and recycling are below satisfactory levels. Although recycling is defined by law, in practice it does not work. Despite good but sporadic examples of collecting PET packaging and paper, there are no instruments for system support recycling industry. Overall awareness of recycling and waste as a raw material is at very low levels. All this results in the fact that there are still large amounts of waste disposed in landfills and dumps. Local governments have limited human and financial capacities and have not been able to establish an integrated system for managing waste. For example, on the territory of the municipality of Kraljevo (the largest local self-governance unit in Serbia calculated in km²) municipal waste is collected by only 10 trucks with average age of more than twentieth years old. Rare municipalities with established system for primary selection of waste faced financial difficulties and the sustainability of the projects are challenged (eg. Municipality of Bajina Bašta)

In the jurisdiction of the local government is site selection and construction of regional sanitary landfills. Limitations are numerous and the biggest among them is lack of funds. However, with a different approach and application for local governments in various funds and with the logistical support of the state, the job could be made easier. The current Waste Management Strategy (Official Gazette No. 29/10) stipulates that Serbia's territory is covered by a network of 26 regional sanitary landfills. Some of those landfills were put in operation or the projects are launched (Subotica, Indija, Nova Varos, Zrenjanin, etc.). The project that implements inter-municipal agreement on Regional waste management center in Subotica is launched in November 2015. It is worth to mention that Inter-municipal Agreement has been signed in 2007. Kikinda landfill is problematic due to the unprofitability caused by insufficient quantities of waste (waste from all municipalities planned for waste disposal is simply not being transported there).

Landfills for the disposal of communal waste in Serbia often do not meet the minimum requirements established by EU Directive on the landfill (1999/31/EC). Actually there are about 120 dump sites under responsibility of local authorities where local public utilities dispose communal waste. Within Draft Law on Waste Management Ministry introduces new term "unsanitary landfill" which is a term without any linkage with EU waste management legislation. Due to the absence of the primary selection and a large fraction of organic components in the composition of municipal solid waste, landfills are the sources of emission of greenhouse gases, namely methane. This gas is highly reactive and causes explosions and fires in the landfills. Disposal of highly flammable materials such as tires and plastic materials on the dump sites causes fire also (City of Kragujevac in May 2015).

Ecological problems of the existing landfills is the main issue in some municipalities (eg. in the municipality of Smederevo the landfill is located on the former riverbed. In Priboj, the landfill is on the regional road Bistrica - Priboj and fires can almost always be noted. In Raska and Novi Pazar the depots are located on the river Raska where waste enters the Ibar River, and then flows into the Zapadna and Velika Morava rivers. This problem is also present on the bank of Drina River. Many landfills had been closed and never repaired (eg. closed landfill in Belgrade on Ada Huja), while on many locations the exploitation period is long surpassed.

RATIONALE

Developments

The goal of the Republic of Serbia is to align with EU environmental standards. It means that Serbia needs to follow and to cope with EU environmental objectives set up in legislative acts and strategic documents. The development of waste management systems must be directed towards implementation of the EU waste management objectives meaning:

- to reduce the amount of waste generated;
- to maximise recycling and re-use;
- To limit incineration to non-recyclable materials;
- To phase out landfilling to non-recyclable and non-recoverable waste;
- To ensure full implementation of the waste policy targets.

Since there is no adequate system of waste collection and disposal established it should be done in accordance with the sustainable development principles, transparency and accountability in project management. Future projects, have to be developed and implemented in cost efficient, transparent and accountable manner. The interest of the local communities, particularly those directly affected by the projects, must be taken into account and sufficient time for public awareness and consultation should be obtained. Interests of the local stakeholders, i.e. citizens and communities, have not been taken into consideration in project development so far and EIA procedures were conducted *pro forma* only.

Notable progress would be achieved through primary separation and the increased share of the recycling industry in this business. The energy would be spared, as well as raw materials and that would extend the exploitation period of the landfill.

Much attention has recently been given to PCB, or otherwise known as "the silent killer", that many regard as the most dangerous waste. Due to its structure, resistance and modes of transmission, PCB (polychlorinated biphenyls) remains in soil and water for a long time and has both long-term and extremely negative consequences on human health, since it is toxic and carcinogenic. An encouraging fact is that the Ministry of Agriculture and Environment has initiated several projects in the past year aimed at removing PCB waste from the environment in EPS, Prva Iskra Baric, Minel, foundry Topola etc. The quantities of residual PCB wastes are measured in hundreds and thousands of tons and according to the current EU directives in the years to come all PCB waste must be neutralized and PCB oils must be replaced by other types of oil.

Challenges

1. Strengthening of the institutional framework, local authorities and cooperation between all levels of the government.
2. Completion of drafting or revision of local waste management plans, redefining the transfer stations and the strengthening of recycling (primary separation, recycling centers etc).
4. Improve cooperation between municipalities in finding proper solution for solving the problem of waste disposal.

5. Improve the work of the inspection services
6. Removing "illegal dumps", especially from the protected water zones (eg. Knin and Uzice), protected areas, populated areas, near agricultural areas and riverbanks and others.
7. "Convincing" the population to collect waste, even though there has never been an organized waste collection in the city.
8. Education of the society, with emphasis on the younger population.

RECOMMENDATIONS

- ✓ The penal policy on waste disposal should be strengthened and properly imposed. This includes individual disposal of waste (eg. Croatia), debris, dead animals etc. for the civilian sector; for responsible public officials and public utilities, companies and business entities.
- ✓ Where appropriate, utilize unspent earmarked local funds for remediation of dumpsites. Municipalities with identified unspent funds, which cannot be proved by objective reasons, should not be supported by national and international financial support.
- ✓ Create more employment in the recycling industry and improving the system of referring to specific waste streams - recycling area (glass, tires, batteries and accumulators).
- ✓ Develop the system of treatment of animal waste.