



Ways of Diverting Waste Materials from the Site of Disposal

Hank Miller*

Department of Environmental Science, University of Vienna, Wien, Australia

DESCRIPTION

The European Union's approach to waste management is based on the principle of waste hierarchy, which prioritizes prevention of waste generation, reuse, recycling, other recovery, and finally preparation for disposal. Landfills can pose environmental risk and can affect surface water and surface water quality, despite technical measures such as soil sealing. Landfills can also significantly spoil the appearance of the landscape. Therefore, the long-term goal is to make Europe a circular economy, avoid waste and use as much unavoidable waste as a resource.

During the period 2010-2016, European countries achieved a relatively constant declining trend in the amount of landfill waste. The total amount of landfill waste (excluding large mineral waste) has decreased from 212 million tons to 188 million tons in 2010. Landfill rates (landfills related to treated waste) decreased from 29% to 25% over the same period. Similar to household waste (city waste, market waste, bulky waste, small and medium-sized enterprises, office buildings, household waste from facilities, etc.), separated waste (mainly secondary waste from waste treatment facilities), incineration waste (mainly secondary waste from waste treatment facilities) Examples: waste from cleaning flue gas, slag and ash from heat treatment and incineration). All remaining waste categories are categorized as chemical and medical waste, recyclable waste, equipment waste, animal and plant waste, mixed and undifferentiated materials, and other wastes including regular sludge. Between 2010 and 2016, the proportion of household waste and similar waste and other landfill waste decreased by 47.2% (40.5 million tons) and 19% (7 million tons), respectively. However, the landfilling of combustion waste increased by 20.6% (12 million tons) and of sorting residues by 40.1% (11.5 million tons). These increases in the landfilling rates of combustion waste and sorting residues were due to the expansion of combustion capacities in the EU, tightening conditions for the material utilization of combustion residues and the development of the waste sorting sector in the context of a gradual shift from landfilling to the material recovery of waste.

Regarding Europe's progress in preventing municipal waste landfills, between 2006 and 2017, the percentage of municipal waste landfills decreased by 21.0% in European countries for which data is available. Of the 37 countries, Slovenia (69%), Lithuania (65%), Latvia (63%) and Estonia (60%) have the most significant reductions in municipal waste landfills. A total of 11 countries have reduced the landfill rate of municipal waste by more than 40.0% over the same period. However, there are still some countries that have made very limited progress. For example, in 2017, the landfill rate of municipal waste was 100% in Serbia and North Macedonia, 99% in Bosnia and Herzegovina, and 93% in Malta. Landfill rates and the effectiveness of their policies vary widely from country to country. According to the legally binding quantitative targets set out in the Landfill Directive, the amount of municipal waste to be landfilled will be reduced to less than 10% of the total amount (weight) of municipal waste is generated. In 2017, 10 European countries reported sending less than 10% of municipal waste to landfills (Austria, Belgium, Denmark, Finland, Germany, Luxembourg, the Netherlands, Norway, Sweden and Switzerland). On the other hand, the landfill rate in 15 countries is still over 50%. The data currently available deviates from the reporting rules with respect to the target, so the data displayed by this indicator cannot be used to indicate compliance with the target. All countries with low landfill rates have either banned the landfill of biodegradable or untreated waste or introduced a ban in combination with higher landfill taxes. In addition, other countries will gradually reduce the proportion of waste is sent to landfills and manage waste in line with the realization of a circular economy through policies, economic means and subsidies for the development of the waste treatment sector. Between 2008 and 2017, the trend in municipal waste management reversed and there was a clear shift from disposal methods to prevention and recycling. Less waste is sent to landfills as some waste is reduced and recycling and energy recovery are increased. In 2008, a little less than 101 million tons of municipal waste was landfilled, but in 2017 this amount decreased (almost 43.0%) to 57.6 million tons. Other disposal operations (including waste incineration and massive losses) also recorded a 67% reduction (from 15.8MT in 2008 to

Correspondence to: Hank Miller, Department of Environmental Science, University of Vienna, Wien, Australia, E-mail: millhank.87@uwe.ac.at

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5.2MT in 2017). However, energy recovery of municipal waste increased by 72.10% (more than 28 million tons), recycling increased by 22.5% (13.5 million tons), and composting and fermentation increased by 18.6% (6.5 million tons). Changes in

municipal waste management are contributing to the diversion of this waste from landfills and the more efficient use of resources.