

The BALKWASTE info library for municipal waste treatment technologies includes data for available technologies that can be implemented as part of an integrated approach in sustainable waste management.

A detailed technical profile for all available technologies was developed, comprising of flow charts, energy and mass balances, market potential for products, environmental impacts, applicability in the BALKAN Region and economic data accompanied by a large number of recent references. The technologies in question are composting, anaerobic digestion, mechanical biological treatment, incineration, gasification, pyrolysis and plasma technology.

The relevant database offers the opportunity to the users to get familiar with technologies. The case studies on the biological and thermal waste management practices in Romania, Bulgaria, Greece and Slovenia are very useful so that anyone can have a further view on the waste management status in each country and realize that the progress in the field of waste management is very limited in these four countries and especially in Bulgaria, where almost 100% of municipal solid waste is landfilled. Greece relies on the application of MBT systems, while the existing situation is a bit better in Slovenia, where more funds have been invested in the field of solid waste management and there is the only incineration unit for the management of municipal waste exclusively (in fact treated municipal waste). Finally, for the case of Romania the existing infrastructure is also limited in order to cater for the needs of the country.

The additional attempt to incorporate functions with choosing criteria and determining limiting factors for the waste treatment technologies helps users obtain deeper knowledge on the waste treatment field. For instance, only in the case that the minimum capacity exceeds 50,000 tonnes, the option of incineration also appears as alternative option. Furthermore, if we want to recover plastic, paper and glass and we choose to have positive energy balance, then Mechanical Biological Treatment – Anaerobic Digestion – Recycling will be the appropriate combination of technologies, since composting does not result in positive energy balance. In the case we want to recover plastic, paper and glass and we choose to use zero composting, anaerobic digestion will not constitute an option, since it requires water consumption. In this

way, the visitors of the database-info library can acquire a practical idea of the limitations of each waste treatment technology.