
Mojca Vendramin**External costs of incineration and landfilling of waste****Working Paper** No. 3/2009, Vol. XVIII

Summary

Protection of the environment by economic and social development is a precondition for sustainable development, which means that pressures on the environment are not increasing by development. In the frame of the current market system successful environment protection is possible only if the environment or the natural world has its real price. As nature is a public good its use induces external costs, which should be included in market prices, for example through taxes. Valuation of such external costs is not yet properly developed. They are evaluated by the willingness to pay of individuals for a certain quality of environment, by the costs needed to achieve or to re-establish a certain quality of environment, or by costs in terms of environmental damage.

Landfilling of waste presents a huge use of space and has local negative impacts, while incineration of waste has also numerous negative influences, mostly through air emissions. Estimates of external costs show that they are lower in incineration of municipal waste than in landfilling waste if external benefits generated by the use of the energy produced are taken into account. In the case of high- tech incineration, even net external benefits are achieved. However valuation of external costs is still problematic, both methodologically and substantively.

Results from this external cost estimation are therefore in line with the waste policy of the EU, which prioritises efficient energy recovery of waste before waste disposal, such as landfilling. Energy-efficient incinerating does, however, require huge capital investment, which according to studies is not covered by the net external benefits generated.