Global MSW Generation in 2007 estimated at two billion tons


This report analyses the global waste market, with particular reference to municipal solid waste (MSW). Key Note estimates that the amount of MSW generated worldwide in 2006 was 2.02 billion tonnes. There is a link between growth in wealth and increase in waste — the more affluent a society becomes, the more waste it generates. As the less wealthy nations develop, they too are creating more wealth, thus adding to the world's waste output.

Waste is produced by all activities of industry and commerce, with important waste streams including construction/demolition, mining, quarrying, manufacturing and municipal waste. Much of the focus of this report is on MSW, because it is the most widespread waste stream and is produced by millions of people. MSW requires major financial and logistical resources to collect, recycle and arrange final disposal. Industrial waste generally has a greater tonnage than MSW, but its management is the responsibility of relatively small and specific sectors of society.

Environmentally acceptable waste-management practices are essential if damaging consequences are to be avoided, such as those due to toxic/hazardous waste, greenhouse-gas emissions, water pollution, air pollution and noise/visual impact (of recycling/waste disposal facilities). Incinerators provide an effective means of reducing the bulk of municipal waste, but it is important that they do not emit harmful gases, compounds and particles.

This report provides an account of published waste statistics for a wide range of countries. In the waste-management market, available data are often old, incomplete and lack harmony in terms of definition. Efforts are being made in more developed economies to produce up-to-date statistics, but for the majority of the world's population, waste data are very poorly reported. Key Note presents a broad global coverage of available information, to provide an overall view of municipal data by tonnage, generation per capita per annum and disposal route. For some industrialised countries, Key Note has included statistics on waste streams in addition to municipal data.

An important part of this report is a discussion of legislation, government waste-management policy and market structure for the major countries in the EU, Eastern Europe, Asia-Pacific, Africa and South America, as well as the US. The prime driver behind improved waste management is legislation, but this does not fulfill its aims unless it is supported by effective enforcement. Indeed, a lack of enforcement gives rise to unscrupulous operators that appear to comply with the law, but in practice deal with waste incorrectly or even dump it illegally.

There is a legal international trade in materials for reuse or recycling, but it is known that some of the world's wealthy nations are exporting mixed or even hazardous waste to poorer countries, where it is not properly treated. Traditionally, municipalities have been responsible for municipal waste collection and disposal, but commercial companies are increasingly being used for waste-management tasks. In some countries, commercial companies work with municipal organisations, while in others, the municipalities
themselves have formed companies for waste-management work. The use of private waste-management contractors is increasing.

Key Note has developed a model for estimating the global MSW market by the tonnage of waste produced. This analysis is given for major countries of the world and is based on a study of population, gross domestic product (GDP), GDP per capita and an estimate of waste produced in kilograms (kg) per capita per annum. In order to analyse the data, the world market is divided into high-, medium- and low-wealth countries.

The global waste-management sector faces some important challenges. At a basic level, improvements are required in the compilation of waste statistics to provide a benchmark against which to measure waste trends. Recycling is increasing, but to make a more significant impact on reducing landfill and the pollution caused by waste, recycling levels should be raised further. The production of energy from waste at incinerators is also growing, but it is important that incineration is not used as a quick method of solving the basic problem of too much waste production. A viable commercial infrastructure is required for recycling to be really successful and far greater emphasis is needed to reduce the amount of waste that is produced at source. The status of waste management varies widely across the world, from the EU, with its ever-growing number of specialist directives, to developing countries where economic growth is very high, but is not matched by waste-management practices. The problem of illegal trade in hazardous waste also needs to be tackled. Waste management is underpinned by legislation that is generally seen to be expensive and restrictive and many countries have waste-related taxes, such as a landfill tax. However, it is important to recognise that the future of waste management offers many business opportunities, including waste-collection/disposal services, operation of recycling plant, toxic/hazardous-waste treatment, consultancy, equipment supply, recycling/composting services, transportation and trade in recycled materials.

Key Note forecasts that total global MSW will increase by 37.3% between 2007 and 2011.