Volume of Waste & Recycling

The rise in population and living standards in Nigeria has produced a huge amount of domestic waste. Waste to energy holds a large potential in Nigeria, both in urban and rural areas, which can yield useful energy in a number of ways. Nigeria generates 0.44 - 0.66 kg/capita/day of municipal solid waste (MSW) with a waste density of 200 - 400 kg/m3. MSW includes Industrial, Domestic, Construction and Sewage wastes. Energy generation through biochemical conversion or combustion will depend on its levels of segregation and collection efficiency. Hence, it is assumed under all scenarios that by 2050, both urban and rural areas will have MSW collection efficiency of approximately 98%, and segregation levels of 88%.

Level 1

Level 1 assumes that the total waste generated is about 252% increase from 2010 level of 41 million tonnes of waste. Industrial and domestic waste contributes about 60 and 41 million tonnes respectively.

Level 2

Level 2 assumes that a reduction of about 19% of total waste compared to level 1 value of 104 million tonnes. Industrial waste will contribute the highest value of about 47 million tonnes and domestic waste contributes about 34 million tonnes while construction and sewage contributes about 2.4 million tonnes of waste.

Level 3

Level 3 assumes a further reduction of about 43% compared to level 1 value of 104 million tonnes of wastes. Industry, domestic, construction and sewages contributing about 28, 29, 0.7 and 1.7 million tonnes of waste.

Level 4

At this level, the value at 2050 remain the same value as of 2010. The 2010 value is 41 million tonnes. Industrial and domestic waste contributes about 21 and 18 million tonnes respectively while construction and sewages contributes about 0.7 and 1.7 million tonnes of waste respectively.

Domestic Wastes in Nigeria.