Waste products are an unwanted consequence of development. We must manage our waste products so that we can conserve natural resources, and protect people and the environment. There are two types of waste; general waste and hazardous waste. Hazardous waste is further divided into nine different classes depending on the type of risk involved.

The issue of waste in South Africa is fuelled by a history of inequitable development and service delivery under Apartheid. The White Paper on Integrated Pollution and Waste Management in South Africa emphasises a shift in waste management strategy from control to prevention. In South Africa, each municipality now also has to prepare an Integrated Waste Management Plan during their Integrated Development Planning process. This will make sure waste management occurs at the local level, where it has the potential to make an impact on our society and the environment we live in.

Waste management in Mpumalanga is measured through 5 indicators:

- Total general waste produced per person per year;
- Total hazardous waste produced per sector per year;
- Available landfill lifespan;
- Expenditure on waste management per person; and
- Total volume of waste re-used, reduced and recycled per type of waste per year.

Total general waste produced per person per year

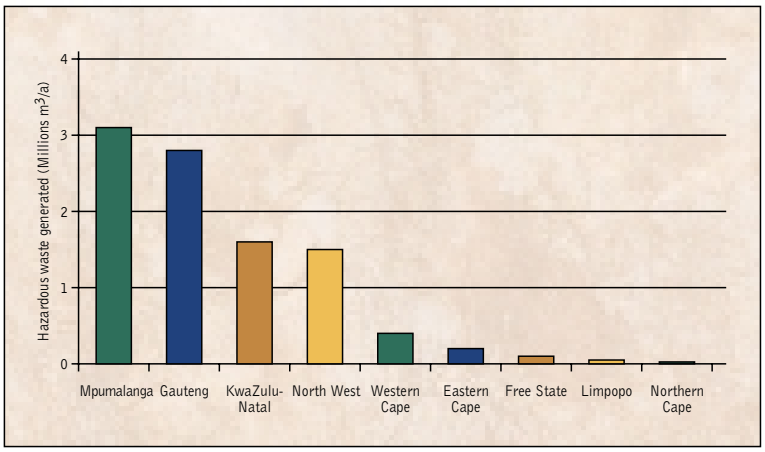
In South Africa just over 42 million m^3 of general waste is produced annually. Mpumalanga produces almost 4 million m^3 of general waste each year, this is 9% of South Africa's general waste stream. Although it produces the fourth highest volume of general waste, Mpumalanga has the third highest per capita waste generation of 1.37 m^3 per person per year.

	General waste (m^3/yr, 1998)	Percentage per province	Population (1996 Census)	Per capita waste generation (m^3/P/yr)
Mpumalanga	3 831 000	9.1	2 800 711	1.37
Eastern Cape	2 281 000	5.4	6 302 525	0.36
Free State	1 675 000	4.0	2 633 504	0.64
Gauteng	17 899 000	42.4	7 348 423	2.44
KwaZulu-Natal	4 174 000	9.9	8 417 021	0.50
North West	1 625 000	3.8	3 354 825	0.48
Northern Cape	733 000	1.7	840 321	0.87
Limpopo	1 470 000	3.5	4 929 368	0.30
Western Cape	8 543 000	20.2	3 956 875	2.16
TOTAL	**42 230 000**	**100%**	**40 583 573**	**1.04**

General waste generation in South Africa (DWAF and Statistics SA)

Total hazardous waste produced per sector per year

As the largest producer of hazardous waste, Mpumalanga is responsible for just over a third of all hazardous waste produced in South Africa. Very little (less than 0.1%) of the 3.5 million m^3 of hazardous waste produced in Mpumalanga actually reaches a hazardous waste site. The remainder is disposed of on-site or in some other way. The fertiliser manufacturing sector contributes 99% of the hazardous waste stream in Mpumalanga.



Volumes of hazardous waste produced per province in South Africa - 1998 (Department of Water Affairs & Forestry)

Available landfill lifespan

This indicator is used to show the number of years a landfill site is likely to remain in operation at a certain waste disposal rate. The establishment of a new landfill site is estimated to take 5 to 7 years. At a provincial level there is currently sufficient landfill airspace within the province, although the Lowveld and escarpment region faces critical shortfalls within the near future. This will require new landfills to be established or larger regional landfills to be identified for use. Upgrading existing landfills can provide more acceptable landfill airspace for the next few years.

Region	Existing landfill lifespan (yrs)	Projected landfill lifespan if existing sites are upgraded (yrs)
Eastvaal	22.5	29
Highveld	25.5	41
Lowveld & escarpment	2	16.5
Provincial Total	**14**	**27**

General landfill lifespan in Mpumalanga - 1997 (Department of Water Affairs & Forestry)

Expenditure on waste management per person

Information on the amount of money spent each year on waste management is currently not available from municipalities. This information will be available in the future through the Integrated Waste Management Plan each municipality will have to prepare for its Integrated Development Plan.

Total volume of waste re-used, reduced and recycled per type of waste per year

This information is not currently collected in Mpumalanga. Recycling statistics can only be obtained from individual recycling agents and *ad hoc* reports. It is very difficult to see trends in isolated pieces of information, but it does appear that recycling in Mpumalanga has increased over the past few years. The potential income that recycling activities can generate will most likely cause recycling figures to increase in the future.