

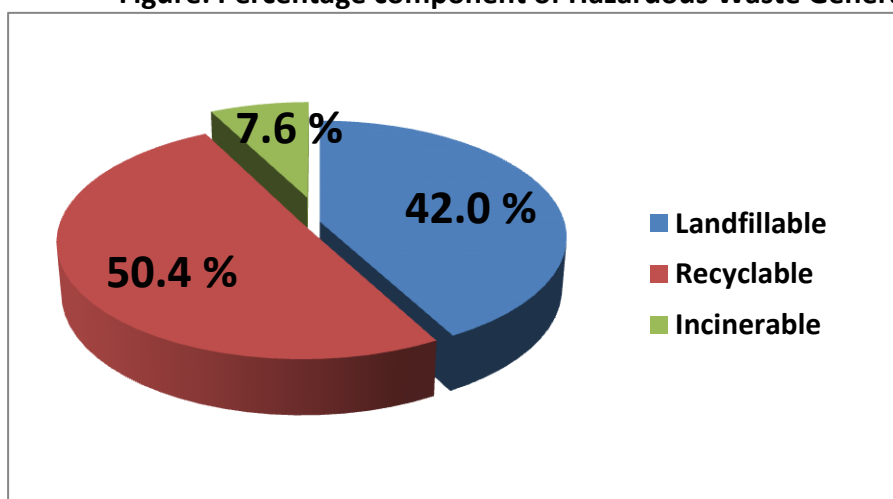
Existing Scenario of Hazardous Waste Management in India

Hazardous Waste Management Rules are notified to ensure safe handling, generation, processing, treatment, package, storage, transportation, use, reprocessing, collection, conversion, and offering for sale, destruction and disposal of Hazardous Waste. These Rules came into effect in the year 1989 and have been amended later in the years 2000, 2003 and with re-notification of the Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008, in supersession of former notifications. The Rules lay down corresponding duties of various authorities such as MoEF, CPCB, State/UT Govts., SPCBs/PCCs, DGFT, Port Authority and Custom Authority while State Pollution Control Boards/Pollution Control Committees have been designated with wider responsibilities touching across almost every aspect of hazardous wastes generation, handling and their disposal.

Based on the information obtained from SPCBs/PCCs, it is estimated that there are about 41523 number of hazardous waste generating industries in India and their hazardous waste generation is about 7.90 million tonnes per annum. These wastes can be categorized into three components such as recyclable, land fillable and incinerable and their percentage constitutions are as below:

Total generation	- 7.90 million tonnes /Annum
Landfillable	- 3.32 million tonnes /Annum
Recyclable	- 3.98 million tonnes /Annum
Incinerable	- 0.60 million tonnes /Annum

Figure: Percentage component of Hazardous Waste Generation



Maharashtra (22.84%), Gujarat (22.68 %) and Andhra Pradesh (13.75 %) are the top three HW generating States in the country. Thereafter Rajasthan, Tamil Nadu, Madhya Pradesh and Chhattisgarh States are in second line with a generation of more than 2.5 lakh tonnes per annum. These seven States together, are generating about 82% of country's total hazardous waste. The State/UT wise generation of hazardous waste is appended at Annexure-I.

TSDFs (Treatment, Storage and disposal Facilities) are facilities for treatment, storage and disposal of hazardous wastes in an environmentally sound and techno-economical viable manner. Common

TSDFs are facilities used by various units/industries for treatment, storage and disposal of their hazardous wastes on charge basis. These are useful for small and medium scale hazardous waste generating industries who cannot set up their own TSDFs.

The common TSDFs are generally expected to have facilities such as authorized vehicle for transportation of hazardous wastes from industries/units, weighing machine, laboratory facilities (to determine characteristics of hazardous wastes to decide their storage and disposal pathway), hazardous waste storage facilities, waste treatment/stabilization facilities, etc. The common TSDFs may have only secured land fill facilities or both secure land facilities and incineration facilities. The latter are called "Integrated common TSDFs." The generators have the option of recycling/reprocessing/co-processing/utilization of hazardous prior to ultimate option of disposal at secure land fill facility (SLF) or through destruction in incinerator. Such disposal can be carried at either at captive or common disposal facilities.

There are 36 common hazardous waste treatment, storage and disposal facilities (TSDFs) (having incinerators and / or SLFs) in 16 States/UTs. The wastes generated in remaining States have limited or inadequate options for disposal due to hindrances in interstate movement and permissions. The list of common TSDF facilities for disposal of hazardous waste in the country are given at annexure-I.

The existing TSDFs have a cumulative capacity of about 32 million Metric tons for secure landfilling and about 0.18 million tonnes/annum for incineration. There is need for setting up common disposal facility in the States generating moderately high quantity of hazardous waste but not having TSDFs; such States are Chhattisgarh, Jharkhand, J&K, Goa, Assam, and Ponducherry. However, there is adequate capacity for recycling/reprocessing of the hazardous waste such as used oils, waste oils, Zinc dross/ Zinc residue, lead bearing waste, spent catalyst etc. listed in Schedule-IV of HWM Rules.

Status of Common Integrated Treatment, Storage & Disposal Facilities (TSDFs)
(Exclusive Common Incinerators & Secured Landfills)

S. No.	Name of the State/UT	Integrated TSDFs	Exclusive Common Incinerators	Exclusive Common Secured Landfills
1.	Andhra Pradesh	2	-	-
2.	Gujarat	3+ 1 [#]	1	4
3.	Haryana	1 *	-	-
4.	Himachal Pradesh	-	-	1
5.	Karnataka	-	3	1
6.	Kerala	-	-	1
7.	Madhya Pradesh	1 *	-	-
8.	Maharashtra	2+1 [#]	-	1
9.	Orissa	-	-	1
10.	Punjab	-	-	1
11.	Rajasthan		1	2
12.	Tamilnadu	1	-	-
13.	UP	1+ 1*	1	1
14.	Uttarakhand	1	-	-
15.	West Bengal	1	-	-
16.	Daman, Diu, Dadra & Nagar Haveli	-	-	1
	TOTAL	16	6	14

* Incinerator installed and the same is under commissioning.

Operation of incinerator is under suspension.