# WASTE MANAGEMENT

CHAPTER THREE

One of the prime mandates of the West Bengal Pollution Control Board (WBPCB) is to ensure safe collection, storage, treatment, disposal and transport of various solid wastes as well as semi-solid waste such as hazardous waste from industries, biomedical waste from healthcare establishments, as also municipal solid waste that non-biodegradable plastic waste.

## HAZARDOUS WASTE MANAGEMENT

The Ministry of Environment and Forests, Government of India notified the Hazardous Waste (Management and Handling) Rules in the year 1989 under the Environment (Protection) Act, 1986. Thereafter the Rules were amended twice in the years 2000 and 2003. As per the

latest amendment Rules of 2003, the Board has made an inventory of hazardous waste generating industries in the state of West Bengal.

There are 609 hazardous waste generating units in West Bengal. Amongst the nineteen districts of the state, two districts (Darjeeling and South Dinajpur) do not generate hazardous waste. The total quantum of hazardous waste generation from West Bengal is 2,59,776.24 metric tonnes per annum (MTPA), out of which 46 per cent (1,20,596.41 MTPA) is landfillable, 49 per cent (1,26,596.38 MTPA) is recyclable and the remaining 5 per cent (12,583.45 MTPA) is incinerable by nature. Interestingly, it was observed that the majority of hazardous waste generating units in the state is small and is generating meagre quantity of waste, whereas the units generating substantial amount of hazardous wastes are limited in number.

**FIGURE: 2.3.1**
HAZARDOUS WASTE GENERATION IN WEST BENGAL

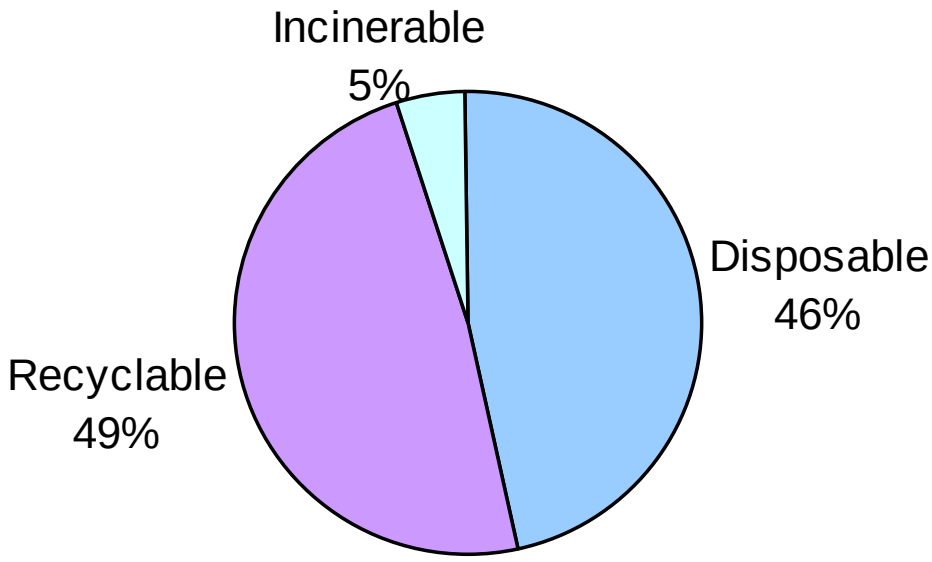


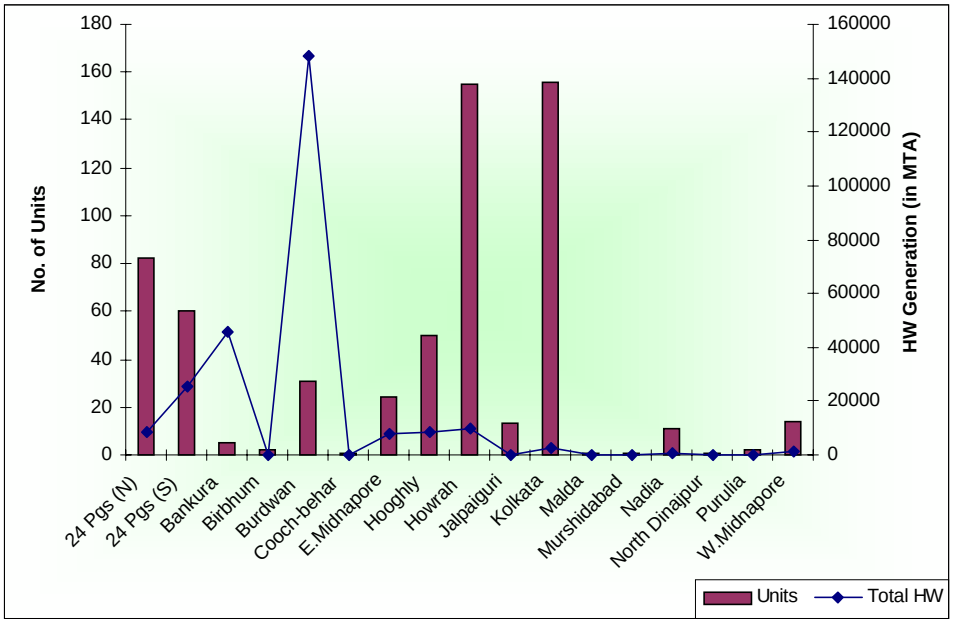

**TABLE: 2.3.1**
INVENTORY OF HAZARDOUS WASTE GENERATING UNITS IN WEST BENGAL

| | |
|---|---|
| Total number of districts in West Bengal | **19** |
| Districts having hazardous waste generating industries | **17** |
| Total number of hazardous waste generating units identified | **705** |
| Total number of operative hazardous waste generating units | **609** |
| Total quantity of hazardous waste generation in West Bengal | **2,59,776.24 MT/A** |
| *Incinerable Hazardous Waste* | **12,583.45 MT/A** |
| *Recyclable Hazardous Waste* | **1,26,596.38 MT/A** |
| *Disposable Hazardous Waste* | **1,20,596.41 MT/A** |
| Total number of closed hazardous waste generating Units | **96** |

**TABLE: 2.3.2**
DISTRICT WISE BREAK-UP OF HAZARDOUS WASTE GENERATION IN WEST BENGAL

| Districts | Total no. of hazardous waste generating units in operation | Total hazardous waste generation (in MTA) | | | |
|---|---|---|---|---|---|
| | | Disposable | Recyclable | Incinerable | Total |
| 24 Pgs (N) | 82 | 775.853 | 7500.1126 | 28.27 | 8304.24 |
| 24 Pgs (S) | 60 | 24300.53 | 1407.06 | 66.51 | 25774.10 |
| Bankura | 5 | 45980.70 | 7.50 | - | 45988.20 |
| Birbhum | 2 | 3.00 | 1.00 | - | 4.00 |
| Burdwan | 31 | 32656.23 | 106999.12 | 8357.66 | 148013.01 |
| Coochbehar | 1 | - | 3.69 | - | 3.69 |
| Purba Midnapore | 24 | 4901.01 | 990.48 | 2247.42 | 8138.90 |
| Hooghly | 50 | 7328.61 | 551.14 | 333.13 | 8212.87 |
| Howrah | 155 | 2287.00 | 7323.61 | 258.40 | 9869.00 |
| Jalpaiguri | 13 | 149.71 | 18.48 | 79.33 | 247.52 |
| Kolkata | 156 | 571.56 | 1132.39 | 683.03 | 2386.99 |
| Malda | 1 | - | - | 10.80 | 10.80 |
| Murshidabad | 1 | - | 180.00 | - | 180.00 |
| Nadia | 11 | 511.00 | 251.08 | 216.01 | 978.08 |
| North Dinajpur | 1 | - | - | 0.84 | 0.84 |
| Purulia | 2 | - | 45.06 | - | 45.06 |
| Paschim Midnapore | 14 | 1131.21 | 185.68 | 302.05 | 1618.94 |
| **Total** | **609** | **120596.41** | **126596.38** | **12583.45** | **259776.24** |

**FIGURE: 2.3.2**
DISTRICT WISE NUMBER OF HAZARDOUS WASTE GENERATING UNITS AND HAZARDOUS WASTE GENERATION



**First Common Storage, Treatment and Disposal Facility (CSTDF) for hazardous waste**

The first Common Storage, Treatment and Disposal Facility (CSTDF) for hazardous waste under the Public Private Partnership (PPP) have been developed in Haldia. It is a joint venture project of Haldia Development Authority (HDA) and M/s Ramky Enviro Engineers Limited.

In April 2003, the Haldia Development Authority (HDA) and M/s Ramky Enviro Engineers Limited formed a joined venture company under the name and style of M/s West Bengal Waste Management Limited to develop and operate the integrated waste management complex for taking care of the industrial hazardous wastes from the entire state of West Bengal. The land for the Common Hazardous Waste Storage, Treatment and Disposal Facility (CHWSTDF) with an area of 70.46 acres is being developed at Mouza Purba Srikrishnapur, J.L. No. 103, P.S. Sutahata, Purba Medinipur. The total land requirement is 200 acres for Phase-I and II. Out of this, 70.46 acres has been acquired and is being utilised for the development of the landfill facility. Temporary storage facility, laboratory and other infrastructure is under Phase-I and installation of incinerator is under Phase-II. The life of the landfill facility is 30 years.

The WBPCB issued 'Consent to Establish' for the facility on April 28, 2004. After a public hearing on July 30, 2004, the Department of Environment, Government of West Bengal issued environmental clearance on October 18, 2004. Site notification was done by the Government of West Bengal on October 18, 2004. The total amount of hazardous wastes to be landfilled at the site is 1,20,000 tonnes per annum. In addition, 60,000 tonnes per annum of hazardous wastes can be stabilised and treated, and 20,000 tonnes per annum of hazardous wastes can be incinerated. The total project cost for the CHWTSDF is given in Table 2.3.3.

**TABLE: 2.3.3**
SOURCE OF FINANCE FOR CHWSTDF AT HALDIA

| Source | Amount |
|---|---|
| **Promoters equity** | **Rs. 20 crores** |
| M/s. Ramky Enviro Engineers Ltd. | Rs. 10 crores |
| Haldia Development Authority | Rs. 32 lakhs |
| Others | Rs. 32 lakhs |
| Deposits | Rs. 936 lakhs |
| **Grant** | **Rs. 11 crores** |
| Ministry of Environment and Forests, Government of India | Rs.2 crores |
| State Government | Rs.2 crores |
| Haldia Development Authority | Rs. 7 crores |
| **Term loans from financial institutions** | **Rs. 23 crores** |

Out of the financial assistance of Rs. 4 crores, the Ministry of Environment and Forests (MoEF), Government of India would grant Rs. 2 crores and the State Government would grant Rs. 2 crores. A Memorandum of Understanding was signed on January 31, 2006 between MoEF, WBPCB and M/s West Bengal Waste Management Limited. Accordingly, both the WBPCB and the MoEF had released Rs. 80 lakhs each to the West Bengal Waste Management Ltd. as the first installment.

The WBPCB has constituted a technical committee comprising representatives of various industry associations, engineering institutions, Department of Environment,

Government of West Bengal and many others to review the membership fee and the cost for the treatment and disposal of the hazardous wastes at the CHWTSDF, Haldia. The inclusion of different industry associations in the committee facilitates the process of joining of the individual units, especially the tiny ones (belonging to the individual associations) as members of the CHWTSDF. The operator of the facility has accepted the recommendation of the Committee regarding the lowering of the membership fee for the tiny sector in order to reduce the economic burden on them as well as to encourage them to become members. The said Technical Committee has agreed upon a cost structure (Table 3.3.4) for the treatment and disposal of hazardous wastes.

**TABLE: 2.3.4**
COST FOR TREATMENT and DISPOSAL OF ONE TONNE OF WASTE

| Type of Treatment | Cost (Rs.) |
|---|---|
| Land filling | 990.00 |
| Stabilization | 1,597.00 |
| Incineration | 18,500.00 |

*Note: Transportation Cost is Rs. 4.00 / Km. The transportation of the hazardous waste may also be arranged by the member-industry by own transport arrangement, provided the transporter should obtain the authorization from the WBPCB for the transportation of the hazardous waste, and also comply with the provisions of the Motor Vehicles Rules.*

The first cell of the landfill facility with an area of 1.99 acres has been in operation since October 2006. Five such cells will be developed with a total area of 33 acres. Intermediate storage facility, waste stabilization facility and a full-fledged analytical laboratory are also in operation. The installation of an incinerator, which is part of Phase-II of the project has also started, and the incinerator is scheduled to start operation in December 2007. More than 300 hazardous waste generating units are become members of the CHWTSDF at Haldia. The Board has been sensitive to the needs of the industries, particularly to the small-scale sector, and has played a major role in revising the membership fees for the smaller units.

**TABLE: 2.3.5**
MEMBERSHIP FEES TO JOIN TSDF

| Investment (in Rs.) | Membership fees for Industry Category | | |
|---|---|---|---|
| | Red | | Orange |
| < 2 lakhs | | 3,000 | |
| 2 lakhs to 5 lakhs | | 5,000 | |
| 5 lakhs to 10 lakhs | | 10,000 | |
| 10 lakhs to 60 lakhs | 20,000 | | 10,000 |
| 60 lakhs to 1 crore | 35,000 | | 20,000 |
| 1 to 5 crores | 75,000 | | 40,000 |
| 5 to 10 crores | 1 lakh | | 50,000 |
| 10 to 50 crores | 1.5 lakhs | | 75,000 |
| 50 to 100 crores | 2 lakhs | | 1 lakh |
| 100 to 200 crores | 3 lakhs | | 1.5 lakhs |
| > 200 crores | 5 lakhs | | 2.5 lakhs |


*First Cell of the Common Landfilll facility at Haldia (in operation)*


*INstallaation of incineartion plant at the common facility at Haldia*

# MUNICIPAL SOLID WASTE MANAGEMENT

Indiscriminate dumping of solid waste is a persisting problem in West Bengal. The identification and allocation of suitable land sites in the densely populated Kolkata Metropolitan Area (KMA) is one of the major constraints of scientific management of municipal solid waste (MSW). The Solid Waste (Management and Handling) Rules, 2000 under the Environment (Protection) Act, 1986 has provisions for rendering the overall responsibility for enforcement of MSW management to the Department of Environment, Government of West Bengal and the District Magistrates of the concerned districts. It may be mentioned that the WBPCB impresses upon the municipalities and district authorities to comply with the provisions of the Rules. The status of compliance of MSW authorisation of municipal corporations/municipalities in the state of West Bengal as per provisions of the MSW Rules is given in Table 2.3.6.

**TABLE: 2.3.6**

STATUS OF COMPLIANCE OF CORPORATIONS / MUNICIPALITIES

| Area | Total No. of Corporations/Municipalities who have complied with provisions of MSW Rules | Total No. of Corporations/Municipalities who have applied for authorisation | Total No. of Corporations/Municipalities to whom authorisation have been granted |
|---|---|---|---|
| **KMA** | 41 | 38 | 23 |
| **Non-KMA** | 85 | 66 | 30 |
| | ***126*** | ***104*** | ***53*** |

*KMA : Kolkata Metropolitan Area ; Non -KMA: Outside Kolkata Metropolitan Area*

### Model MSW Management Facility of North Dumdum and New Barrackpore Municipalities

This is a model project on MSW management for both the municipalities with financial support from the Central Pollution Control Board (CPCB) and Kolkata Metropolitan Development authority (KMDA) on a 50:50 cost sharing basis. The first phase of the project, which included collection, transportation and intermediate storage of MSW is complete. After approval, the proposal for the second phase (i.e. development of vermi-compost plant and landfill facility by the CPCB) was made.

The Memorandum of Understanding (MoU) between the CPCB, WBPCB, KMDA and the Chairpersons of North Dumdum Municipality and New Barrackpore Municipality had been signed. The total project cost for the second phase is Rs.374 lakhs. The construction of 75 vermi-compost pits, boundary wall, approach road, etc. are in progress. The size of the each pit will be 15 m x 1.5 m. The capacity of the compost plant will be 50 MT/day.

*Construction of Vermi compost pits for the Model Facility Project in North Dum Dum and New Barrackpore municipal areas*

There will be two landfill facilities (Cell-I and Cell-II) under the project, and it will be developed at Mouza Fatullapur (J.L.No.3) PS. Nimta, North 24 Parganas located within North Dumdum Municipal area. The development of the landfill facility (Cell-I) will be started soon.

**JBIC Project for integrated solid waste management for six municipalities in Hooghly District**

With financial support from the Japan Bank of International Cooperation (JBIC), the integrated regional solid waste management plan will be developed for six municipalities under the project titled SAPROF (Special Assistance for Project Formation). The names of the municipalities are Srirampore, Rishra, Uttarpara-Kotrang, Konnagar, Baidyabati and Champdany. The KMDA is the executive agency and they are in the process of selecting vendors to develop the facility. Under this project, individual vermi-compost plant will be made for each municipality within their jurisdiction, whereas a common shared landfill facility will be developed at Mouza Dirghangi, Hooghly. A total area of 51 acres of land has also been acquired to develop the landfill facility. The project will be completed by 2009.

**MSW Project for KMA municipalities under Jawaharlal Nehru National Urban Renewal Mission (JNNURM)**

A total number of ten municipal bodies (Barrackpore, North Barrackpore, Garulia, Kamarhati, Rajpur-Sonarpur, Bansberia, Bally, Budge Budge, Hooghly-Chinsurah and Rajarhat-Gopalpur) have been selected by the KMDA for this project. The Detailed Project Report (DPR) has been approved by the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) for financial assistance to develop the landfill facility and compost plant, either on an individual or shared basis. The financial contributions of JNNURM, State Government and Municipalities for these projects will be 35 per cent, 60 per cent and 5 per cent respectively. All these municipalities have introduced a door-to-door collection system for collection of MSW. The compost plant will be vermi-compost by nature.

**MSW Project for non-KMA municipalities under JNNURM**

This will be an integrated regional solid waste management plant, which have been approved by the JNNURM. This facility will be developed for four municipalities under the project. The names of these municipalities are Durgapur Municipal Corporation, Asansol Municipal Corporation, Ranigunj Municipality and Jamuria Municipality. Asansol Durgapur Development Authority (ADDA) has already identified the land at Mouza Mangalpur, Ranigunj for the development of shared sanitary landfill facility and compost plant. National Productivity Council (NPC) has prepared a DPR for the compost plant and the landfill facility. The capacity of the shared compost plant will be 125 MT/day.

**MSW Management by Maheshtala Municipality**

The compost plant (vermi-composting) has already been developed with the technical know-how of the Karnataka Compost Development Corporation (KCDC). The work for the development of the Sanitary landfill facility will start soon.

**Common MSW Management Facility by Dumdum, South Dumdum and Baranagar Municipalities**

The integrated mechanical compost plant of capacity 200 MT for these three municipalities will be developed with the technical know-how of the KCDC. The Agency had been engaged by the KMDA. The construction work of the project will be commenced very soon.

**MSW Management by Panihati Municipality**

The compost plant (vermin-composting) has already been developed with the technical know-how of the KCDC. The project report of the sanitary landfill facility has been prepared by the NPC. Both the agencies were engaged by the KMDA. The construction work for the sanitary landfill facility will be developed soon.

**MSW Management by Kalyani Municipality**

Kalyani municipality has a mechanism of collecting wastes from the individual households, markets, etc. through containerised tricycle vans. But presently the municipality is operating its compost plant


*Vermi-compost pits of Kalyani Municipality*

*Specially designed movable MSW collection bin used at Kalyani Municipality*

(vermi-composting) for utilising only market garbage. The municipality has already established marketability of their compost. It has also taken initiatives to develop the compost plant in a larger scale at the already-identified land to process the biodegradable wastes generated in the entire municipal area.

**MSW Management by Bhadreswar Municipality**

The municipality is collecting MSW from the doorstep in each ward through containerized tricycle vans. The biodegradable waste is processed in the compost plant (vermin-composting). The sanitary landfill facility has also been developed at the same site.

*Raw MSW dumped in the platform for preparing the waste for Vermi-compost pits at Bhadreswar Municipality*

**MSW Management by Chandernagore Municipal Corporation**

The vermi-compost plant has already been developed and taken into operation. The municipal authority is selling the compost to the local farmers, nurseries etc. The construction work for the sanitary landfill facility is in progress. The Municipal Corporation has introduced a door-to-door collection of MSW in all the wards by containerized tricycle vans.

Though a few MSW processing plants has been developed or are undergoing development, the development of a good number of such processing plants of various municipalities in the State is under active consideration of the Municipal Affairs Department, Government of West Bengal, KMDA and Municipal Engineering Directorate (MED).

## BIOMEDICAL WASTE MANAGEMENT

The potentially hazardous waste generating by the health care units are termed as Bio-Medical Waste (BMW). The disposal of untreated biomedical wastes poses both environmental and public health risks. It also acts as an occupational health hazard to the healthcare personnel who handles such waste at the point of generation, as well as those involved with their management (i.e. segregation, storage, transport, treatment and disposal). The indiscriminate disposal of untreated wastes is the cause of spread of infectious diseases. Apart from these, a good amount of biomedical wastes including disposable syringes, saline bottles, IV fluid bottles, etc. are picked up by the rag-pickers, and are recycled back to the market

without disinfection. It is imperative, therefore, to adopt appropriate system for the safe collection, storage, transport, treatment and disposal of biomedical wastes. Realising the seriousness of the problems associated with the poor management of the biomedical wastes, the Ministry of Environment and Forests, Government of India notified the Bio-Medical Waste (Management and Handling) Rules in the year 1998 in order to regulate the environmental menace due to mismanagement of hospital waste. The Rules were amended in 2003.

**Rules framed for BMW management**

The Ministry of Environment and Forests, Government of India, notified the Bio-Medical Waste (Management and Handling) Rules in July 1998 under the Environment (Protection) Act, 1986, through Gazette notification S.O. 630 (E). Thereafter, the Bio-Medical Waste (Management and Handling) Rules were amended thrice in the years 2000 and 2003. The first amendment was published on 6th March 2000 vide S.O. 210 (E), second amendment was published on 2nd June 2000 vide the Gazette Notification S.O. 545 (E) and the third Amendment was published on 17th September 2003 vide Gazette Notification S.O. 1069 (E). These rules regulate the generation, handling, collection, storage, transport, treatment and disposal of BMW. Some of the salient features of these rules are given below.

1. These rules are applicable to hospitals, nursing homes, veterinary institutions, pathological laboratories and clinics, blood banks, etc. that generate biomedical wastes.
2. The State Pollution Control Board/ Pollution Control Committee is the prescribed authority for the implementation of the Rules in the Sates/Union Territories.
3. Every occupier of the healthcare units generating, collecting, receiving, storing, transporting, treating, disposing and/or handling BMW in any other manner, except such occupier of clinics, dispensaries, pathological laboratories, blood banks providing treatment/service to less than 1000 patients per month shall make an application in Form-I to the prescribed authority for grant of authorisation.
4. The prescribed authority shall, on receipt of Form-I, make such enquiry as it deems fit, and if it is satisfied that the applicant possesses the necessary capacity to handle the BMW in accordance with the Rules, may grant or renew an authorization, as the case may be.
5. The onus of treatment of the BMW squarely lies with the occupier of the healthcare units.
6. The municipal body of the area shall pick up and transport segregated non-biomedical waste generated in the hospitals and nursing homes, as well as duly treated BMW for disposal at the municipal dump site.
7. The BMW shall not be stored beyond 48 hours without permission of the appropriate authority.
8. The occupier of the healthcare unit needs to maintain the records related to the generation, collection, reception, storage, transportation, treatment, disposal and/or any form of handling BMW.
9. Every occupier/operator shall submit an annual report (of the status of BMW management) to the State Pollution Control Board in Form-II by 31st January every year. The State Pollution Control Board shall send this information in a compiled form to the CPCB by 31st March every year.

According to the provisions of the Bio-Medical Waste (Management and Handling) Rules, 1998 and its amendments, it was clearly mentioned that the generator of the BMW (i.e. the occupier of the healthcare unit) is solely responsible for the treatment of BMW generated from their units, and the municipality can pick up the treated BMW from them. But response from the healthcare units is not at all encouraging. Many of the healthcare units, particularly in the government sector are not conscious about this matter, as a result, the

untreated wastes are either disposed to the municipal vats or ordinarily buried or burned. It is also observed during inspection of some renowned healthcare units that the unauthorised waste recycling trends persist due to the lack of seriousness of the healthcare units.

**TABLE: 2.3.7**
PRESENT STATUS OF COMPLIANCE OF HEALTHCARE UNITS IN WEST BENGAL DURING 2006-2007

| Sl no. | Healthcare Facilities | Total no. of units | Total no. of beds | Total amount of biomedical waste generated (kg/day) | Total amount of biomedical waste treated (kg/day) | Total no. of units that have obtained authorisation |
|---|---|---|---|---|---|---|
| A. | Healthcare units in towns having population of 30 lakhs and above | 368 | 25575 | 6383 | 6383 | 362 |
| B. | Healthcare Units in towns having population below 30 lakhs | | | | | |
| | i) With 500 beds and above | 17 | 10909 | 2727.25 | 1709 | 16 |
| | ii)With 200 beds and above but less than 500 beds | 51 | 13922 | 3480 | 1028.75 | 45 |
| | iii)With 50 beds and above but less than 200 beds | 167 | 13114 | 3448.50 | 820.50 | 108 |
| | iv) With less than 50 beds | 2975 | 30607 | 7651.75 | 1420.75 | 1075 |
| C. | Healthcare units generating biomedical waste but not included in A or B. | KMC-495 | | | | 27** |
| | | Outside KMC-2363 | | | | 38** |

** Most of the healthcare units have exempted from applying for authorisation.*
*** These are non-bedded healthcare units like pathology, diagnostic center, clinic etc.*

Common Bio-Medical Waste Treatment and Disposal Facilities in West Bengal

- **Common Bio-Medical Waste Treatment and Disposal Facilities by Private Operator: Considering 80 per cent of the total capacity are being utilised, these facilities cover 80,000 beds. The facilities are:**

  1. **Howrah** : M/s SembRamky Environmental Management Pvt. Ltd. (capacity 30,000 beds/day);
  2. **Kalyani** : M/s Medicare Incin Pvt. Ltd. (capacity 30,000 beds/day);
  3. **Haldia** : M/s West Bengal Waste Management Ltd. (capacity 10,000 beds/day); and
  4. **Asansol** : M/s Medicare Incin Pvt. Ltd. (capacity 30,000 beds/day).

- Common Bio-Medical Waste Treatment and Disposal Facilities under the West Bengal Health System Development Project (WBHSDP), Health Department, Government of West Bengal

  1. **Kalyani** : JNM Hospital, Kalyani (Autoclave: capacity 50 kgs./cycle) covering 998 beds within Kalyani Municipal areas; and
  2. **Diamond Harbour** : Diamond Harbour Sub-Divisional Hospital (Microwave) covering 200 beds within Diamond Harbour Municipal areas.

## Segregation of Biomedical Waste

*Properly segregated incinerable wastes kept in yellow coloured bag*

*Properly segregated Autoclavable wastes kept in blue coloured bag*

*Electrical needle destroyer used for mutilation/destruction of used disposable syringes*

*General wastes of health care unit kept in black coloured bag*

*Autoclave installed at JNM Hospital-Kalyani under WBHSDP, Health Department, Government of West Bengal for treatment of non-anatomical bio-medical waste*

# PLASTIC WASTE MANAGEMENT

Plastic waste is a significant contributor to non-biodegradable disposables. Of the total quantum of one lakh tones of waste generated everyday in India, about 4 per cent comprise of plastic waste. Due to its non-biodegradable nature, waste plastic poses threat to human health and causes irreparable damage to the environment. Discarded plastic also hinders the natural aeration process of surface water bodies, choke municipal sewer lines, block storm water drains and also clogs the bar-screens of sewage treatment plants. They interfere with various agricultural operations and prevent natural recharge of groundwater. Consumption of food wrapped in coloured plastics also has adverse health effects. Death of domestic animals has been reported from ingestion of littered plastic carry bags. Further, it causes landslide in the hills.

*Gauge Meter is used for measuring the thickness of plastic carry bags*

For effective and scientific management of plastic waste, the Ministry of Environment and Forests, Government of India notified the Recycled Plastics Manufacture and Usage Rules, 1999. The Rules were amended in 2003. Under the provisions of the Rules, there existed a country-wide ban on the manufacture, use and sale of plastic carry bags below 20 microns thickness since 2002. Through a circular issued in 2007, the WBPCB has made the same restriction (related to size and thickness of plastic carry bags) more stringent in order to discourage the overall use of plastic carry bags. The idea is simple. The bigger and expensive bags would automatically be used less by consumers due to their higher costs, and also encourage rag-pickers to retrieve tem from garbage in view of higher resale value.

Under the provisions of Section 33A of the Water (Prevention and Control of Pollution) Act, 1974, Section 31A of the Air (Prevention and Control of Pollution) Act, 1981 as well as the Recycled Plastics Rules, the Board introduced a series of legal restrictions from time to time. The Board regularly ensures the enforcement of the legal restrictions, as given below.

- All kinds of plastic carry bags are banned in the ecologically sensitive areas of the state like the entire forest area of the state including Sundarban, Coastal Regulation Zone areas, hilly areas of Darjeeling district, Siliguri Subdivision and the area under Siliguri Municipal Corporation situated in Jalpaiguri district.
- A total of 40 heritage / tourist sites in the state have been declared as 'Plastic Carry Bag Free Zones'. During 2006-2007, the latest addition to this list was Santragachi Lake (Jheel) extending up to five metres from the highest water line. The WBPCB issued this direction on February 7, 2007.
- Plastic carry bags are also banned in all government buildings of West Bengal (including Writers' Buildings, Kolkata ) and campus of Viswa Bharati Viswa Vidyalaya, areas under Sriniketan-Santiniketan Development Authority and Bolpur Municipality in Birbhum district of the state.
- The use, manufacture and storage of plastic carry bags have been banned within 50 metres of both sides of river Ganga from Diamond Harbour to Malda.