

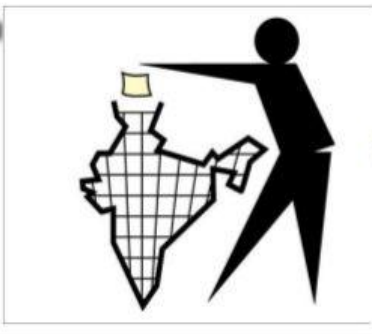
Recycling for Profits: *Commercial Waste
Collection, Recycling & Disposal of Hospital
Waste, Municipal Solid Waste, Biomedical
Waste, Plastic Waste.*



Waste Management Industry in India.



SOLID WASTES



Plastic Waste



Bio Medical Waste



Introduction

Waste is an inevitable by-product of the use of natural resources. Industrial waste is a part of the waste generated by any manufacturing or industrial activity. Different waste materials generated after the industrial process include oil, trashes, concrete, chemicals, wood coal, slag and other waste. The scenario of disposing the waste has been changing with increasing environmental awareness. Toxic waste, chemical waste and industrial solid waste are some of the designations of industrial waste.

Waste management is the collection, transport, processing, recycling or disposal and monitoring of waste materials. Effective waste management services can save your business money and benefit the environment at the same time.

Recycling is processing used materials (waste) into new, useful products. This is done to reduce the use of raw materials that would have been used. Recycling also uses less energy and great way of controlling air, water and land pollution.

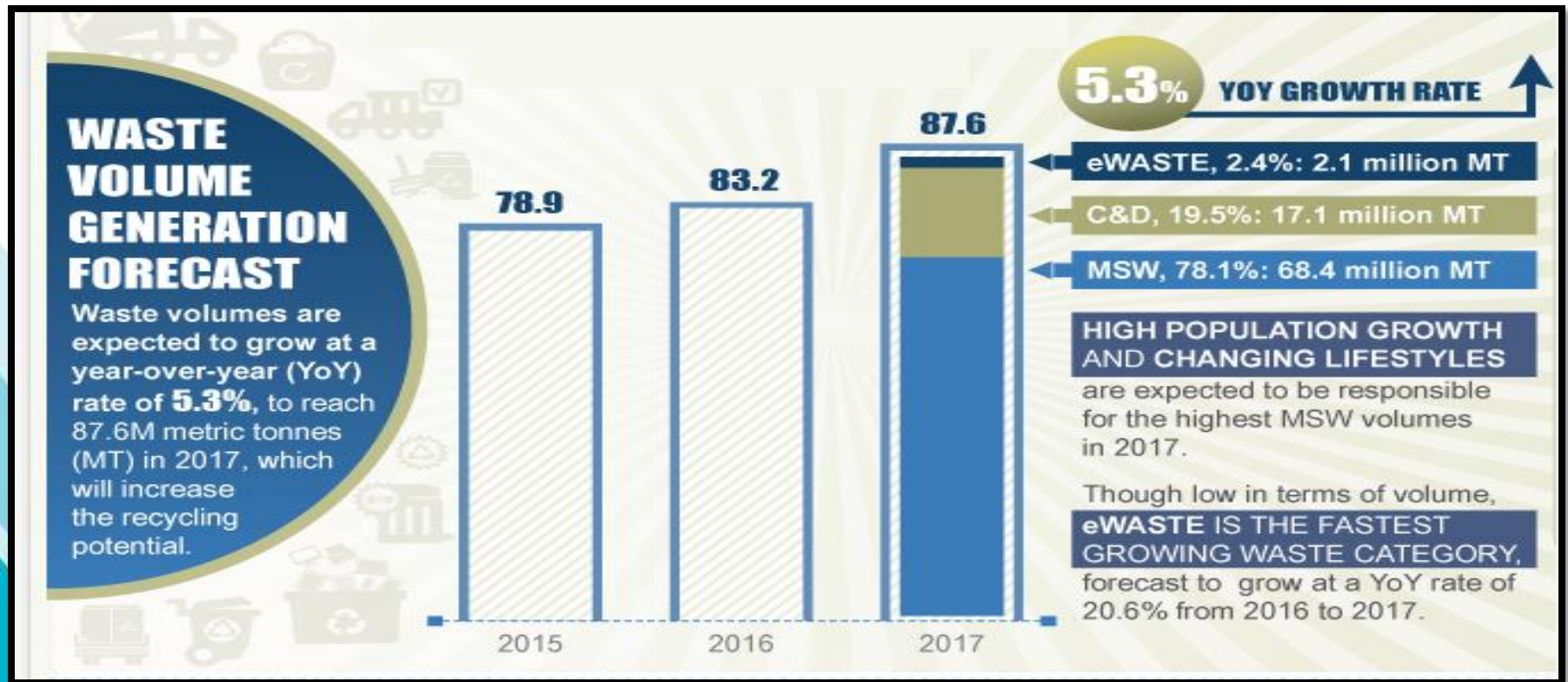
Waste recycling is the key focus area within the waste management services market in India. Increasing population, growing consumerism, and high use of electrical and electronic equipment are increasing waste volumes across different type of waste streams. The lack of proper source segregation of waste hinders the potential of waste recycling.

India being the 7th largest country in terms of area and 2nd largest in terms of population constitute immense business opportunities for domestic and international solid waste management players.

The country has seen some dramatic economic and social developments in the last decade. Fast urbanization, industrial boom, government's focus, and private sector involvement has driven solid waste management market to witness remarkable expansion both in volume and value terms.



Waste Management & Recycling Market, Waste Generation Volume Forecast, India, 2015-2017 (Million MT)



By 2025, India's waste management sector is expected to be worth US\$13.62 billion with an annual growth rate of 7.17 percent. Much of the waste India produces simply ends up in landfills without proper processing or treatment – redirecting this untapped waste to proper treatment and processing facilities will open up new investment possibilities.



Bio-Medical Waste (BM)

Healthcare is an essential aspect of life; these activities generate a large amount of waste called biomedical waste. This waste generated by healthcare activities can be hazardous or toxic or something deadly as it is contaminated by disease carrying pathogens which can infect patients, healthcare workers and other public present near there. Increase in the healthcare facilities and the rising trend of using disposal material has increased the amount of biomedical waste significantly and hence creating serious threats to health of society and environment also. Biomedical waste can contain cotton, needles, vials, specimen, human organs etc. and proper disposal of different types of biomedical waste differently is essential.

Today biomedical waste management has become one of major issue of concern in India taking into account the rate of growth of population.

Bio-medical waste (BM) includes all refuse used in the healthcare industry such as syringes and biological materials. The total bio-medical waste generated in India is approximately 484 tons per day (TPD) from over 160,000 healthcare facilities (HCF). An estimated 447 tons of this biomedical waste is treated in India daily. India's bio-medical waste management market will grow at a compounded annual growth rate of 8.41 percent – higher than the projected growth rate for waste in general.

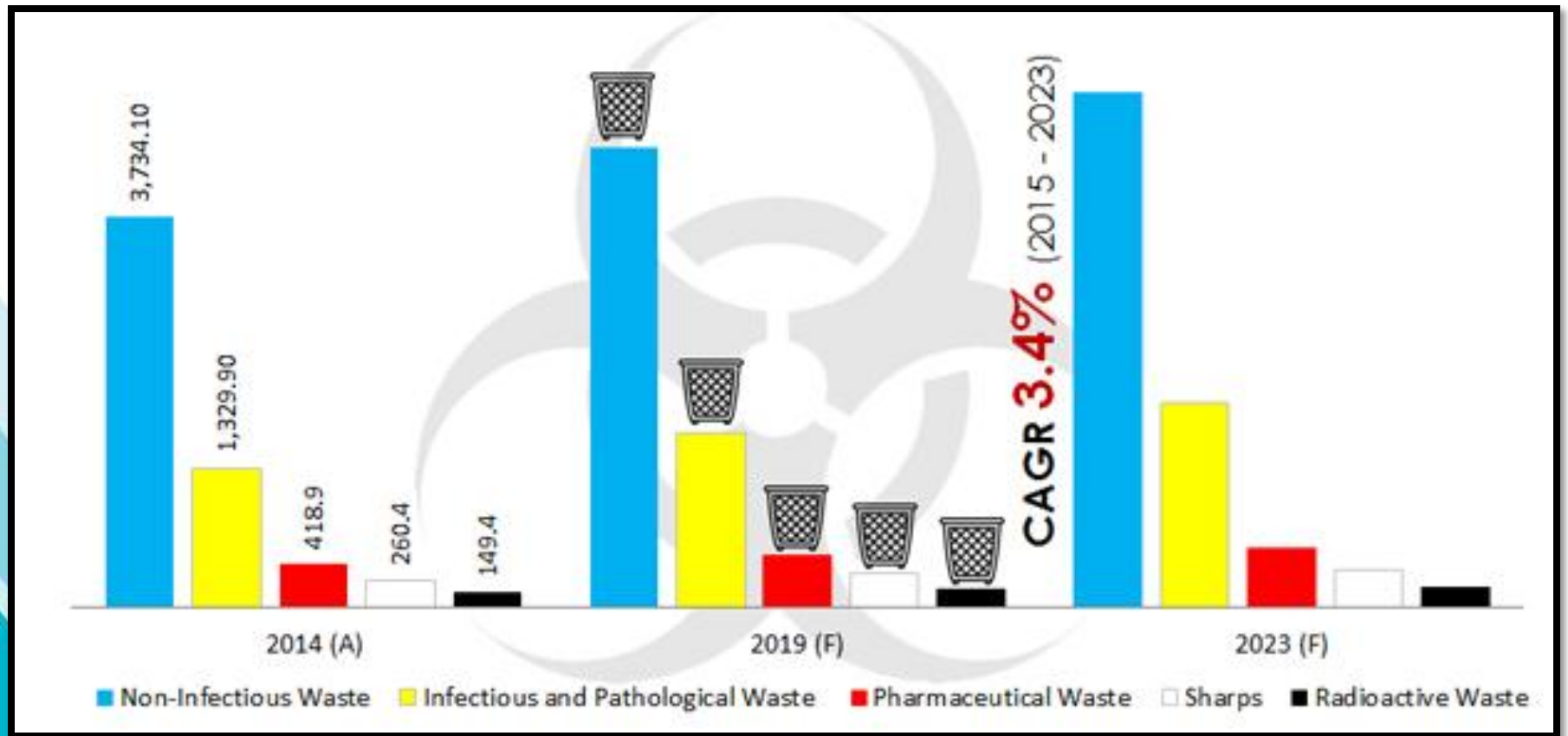
Hospital Waste

Medical waste refers to the waste originated within medical amenities such as hospitals, clinics, veterinary hospitals/clinics, dental practices, physician's offices, laboratories, blood banks and research and development centers (R&D) related to healthcare. The medical waste management program is critical for the public health, environment, and sanitation. Unlike municipal waste treatment the medical waste management involves various stages of waste management, such as accumulation, generation, storage, handling, treatment, transport, and disposal.

The growing demand of the pharmaceutical industry and aging population drives the medical waste management market. The U.S. market for medical waste management is anticipated to boost owing to increase in the number of diagnostic tests, growing healthcare sector, launch of several medical devices, and flourishing pharmaceutical sectors.

The rise in the demand for hospital waste management is due to the strict rules imposed for emission, disposal, and recycling of hospital waste. Moreover, there has been a lot of technological innovations and advancements that has helped in reducing and recycling of the waste to a large extent.

**U.S. Medical Waste Management Market, By Revenue (US\$ Mn),
by Type of Waste, 2014-2023**



Municipal Solid Waste

Municipal solid waste includes commercial and domestic wastes generated in municipal or notified areas in either solid or semi-solid form excluding industrial hazardous wastes but including treated bio-medical wastes. Rapid growth in urban population coupled with economic growth and rise in community living standards has resulted in generating huge amount of municipal solid wastes in various Indian cities.

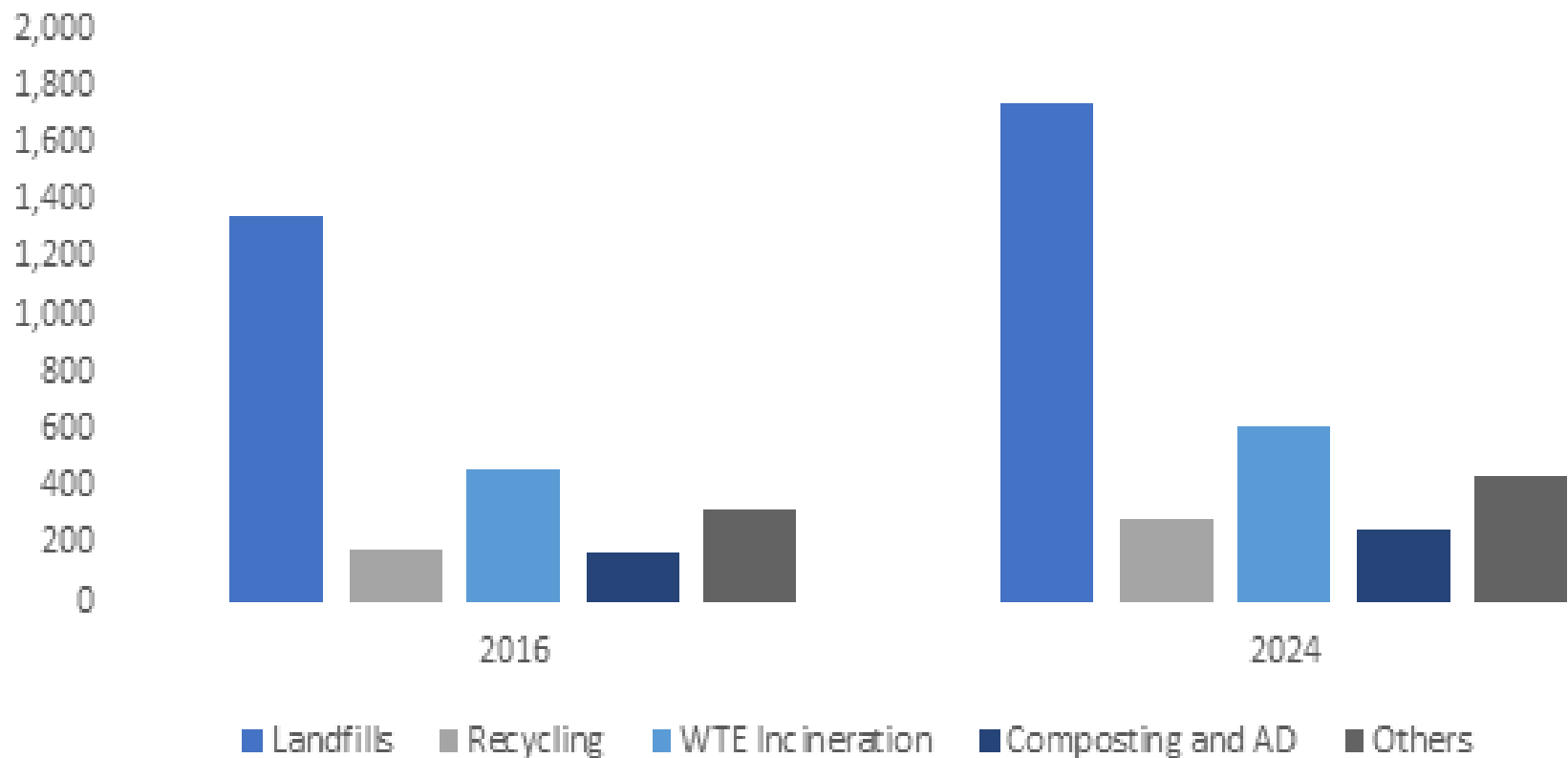
Municipal solid waste (MSW) is one of the major areas of concern all over the world. In developing country like India, there is rapid increase in municipal solid waste due to urbanization and population growth. Composition of waste varies with different factors like living standard, climatic condition, socio-economic factor etc.

The solid waste management industry is characterized by stringent government regulations pertaining to MSW management and efficient implementation including reuse, recycling, reduce and recovery methods.

The U.S. generated over 250 million tons of waste, with a recycling rate of about 34 percent, the company gave account. Rapid urbanization and increasing consumption level of resources such as paper, plastic, edibles and textiles were expected to double the municipal solid waste (MSW) over the forecast period. Australia's market size was estimated at over 7 billion US-Dollar in 2015 and is supposed to reach more than 9 billion US-Dollar by 2023.

Global Solid Waste Management Market size was valued at over USD 240 billion in 2016 and the annual capacity is set to exceed 4.5 billion tons by 2024.

U.S. Solid Waste Management Market by Disposal, 2016 & 2024 (Million Tons)



Plastic Waste

Plastic products have become an integral part in our daily life as a basic need. It produced on a massive scale worldwide and its production crosses the 150 million tonnes per year globally.

India has witnessed a substantial growth in the production of plastics and an increased consumption of plastic. In the absence of adequate waste collection and segregation process, the management of the waste created by discarded used plastics items, especially ones used for packaging applications has become a challenging task.

This article provides an overview of the resource recovery from plastic waste with consideration of integrated waste management, to evaluate the best possible option for tackling waste in Indian circumstances.

Global plastic waste management market is segmented by polymer types, which includes PP, LDPE, HDPE, PVC, others. There are various end-user industries associated with plastic waste management solutions such as packaging, construction, textile, automobile, others.

Global plastic waste management market is segmented by services & equipment. Services include assembly, recycling, incineration, transportation and clearance whereas equipment comprises of assembly & transportation, equipment, garbage truck, recycling equipment, palletizer, extruder, label separator and others.

Increasing urbanization, stringent laws and regulations enforced by the government, and increasing consumer awareness are expected to be the major drivers of the plastic waste management market. The global plastic waste management market is projected to be valued at around USD 26,573.3 million by 2020, growing at a CAGR of 3.02% from 2015 to 2020. The market for recycling plastics is projected to grow at the highest CAGR.

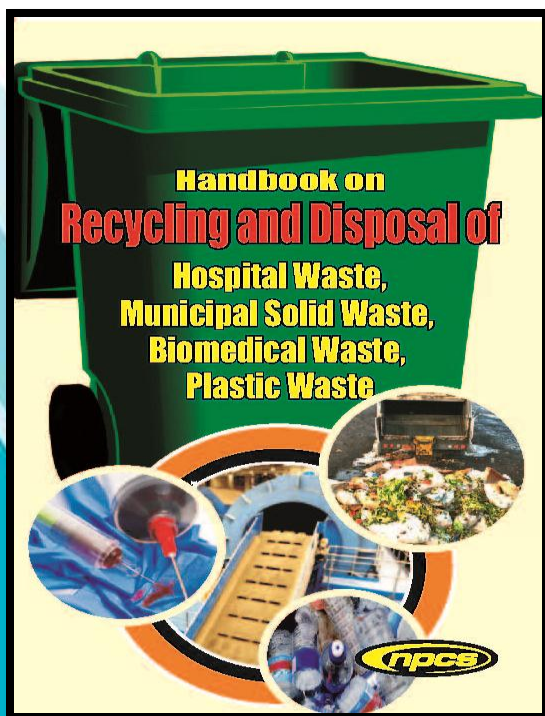
Plastic Waste Management Size, by Region, 2014 (USD Million)



*RoW includes Brazil, Nigeria, and South Africa.

Handbook on Recycling and Disposal of

- **Hospital Waste**
- **Municipal Solid Waste**
- **Biomedical Waste**
- **Plastic Waste**



<https://goo.gl/eGUkfz>

About the Book

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Waste can be almost anything, including food, leaves, newspapers, bottles, construction debris, and chemicals from a factory, candy wrappers, disposable diapers, old cars, or radioactive materials. People have always produced waste, but as industry and technology have evolved and the human population has grown, waste management has become increasingly complex. Waste recycling involves the collection of waste materials and the separation and clean-up of those materials. Recycling waste means that fewer new products and consumables need to be produced, saving raw materials and reducing energy consumption.

Waste reduction and recycling are very important elements of the local waste management framework. They help both to conserve natural resources and to reduce demand for valuable landfill space. The waste recycling services has become the one of the fastest growing industry. The growth of the waste recycling services is driven by the technology development for waste recycling.

The waste management market is expected to be worth US\$ 13.62 billion by 2025. Indian municipal solid waste (MSW) management market is expected to grow at a CAGR of 7.14% by 2025. India has planned to achieve a capacity of 2.9 million hospital beds by 2025 which will help bio medical waste management market to grow at a CAGR of 8.41%.

The concern for bio medical waste management has been felt globally with the rise in infectious diseases and indiscriminate disposal of waste. It is to be understood that management of bio medical waste is an integral part of health care. There is a clear need for the current approach of waste disposal in India that is focussed on municipalities and uses high energy/high technology, to move more towards waste processing and waste recycling (that involves public private partnerships, aiming for eventual waste minimization driven at the community level, and using low energy/low technology resources.

This book basically deals with characterization of Medical Waste, Medical Waste Data Collection Activities, Medical Waste Treatment Effectiveness, Gas Sterilization, Municipal Solid Waste, Bio-Medical Waste, Hospital Waste Incineration, Production, Use, and Disposal of Plastics and Plastic Products, Medical Waste Reuse, Recycling and Reduction, Disposal on Land, municipal and plastic waste management, Plastic Waste, incineration and number of recycling methods.

The book is highly recommended to new entrepreneurs, existing units who wants to get more information of Waste Disposal & Recycling.

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25. Production, Use, and Disposal of Plastics and Plastic Products

1. SUMMARY OF KEY FINDINGS

2. TECHNOLOGICAL OVERVIEW

Manufacturing Resins

Incorporating Additives

3. PRODUCTION AND CONSUMPTION STATISTICS

Historical Overview

Domestic Production of Plastics

Import/Export and Domestic Consumption

Economic Profile of the Plastics Industry

Sector Characteristics

Market Conditions and Prices for Commodity Resins

Characteristics of Major Resin Types

Characteristics of Major Additive Types

4. MAJOR END USE MARKETS FOR PLASTICS

Packaging

Building and Construction

Consumer and Institutional Products

Electrical and Electronics

Furniture and Furnishings

Transportation

Adhesives, Inks, and Coatings

5. DISPOSITION OF PLASTICS INTO THE SOLID WASTE STREAM

Plastics in Municipal Solid Waste

Plastics in Building and Construction Wastes

Plastics in Automobile Salvage Residue

Plastics in Litter

5 Plastics in Marine Debris.

26. Impacts of Post-consumer Plastics Waste on the Management of Municipal Solid waste

SUMMARY OF KEY FINDINGS

Landfilling

Management Issues

Incineration

Management Issues

Environmental Releases

Litter

LANDFILLING

Management Issues

Landfill Capacity

Landfill Integrity

Other Management Issues

Environmental Releases

Leaching of Plastic Polymers

Leaching of Plastics Additives

INCINERATION

Introduction

Number, Capacity, and Types of Incinerators

Combustion Properties of Plastics

Plastics Combustion and Pollution Control

Incinerator Management Issues

Excessive Flame Temperature

Products of Incomplete Combustion (PICs)

Formation of Slag

Formation of Corrosive Gases

3 Environment Release

Emissions from MSW Incinerators

Plastics Contribution to Incinerator Ash

LITTER

Background

Analysis of Relative impacts of Plastic and other Litter

27. The Potential for Divertable Plastic Waste

1. SCENARIO DEVELOPMENT

1 Scenario 1

2 Scenario 2

3 Scenario 3

4 Scenario 4

5 Scenario 5

2. ESTIMATED QUANTITIES OF DPW

1. Scenario 1

2. Scenario 2

3. Scenario 3

4. Scenario 4

5. Scenario 5

3. SUMMARY

28. Objectives and Action Items

OBJECTIVES FOR IMPROVING MUNICIPAL SOLID WASTE MANAGEMENT

Source Reduction

ACTION ITEMS:

ACTION ITEMS:

OBJECTIVE 1: EVALUATE POTENTIAL FOR MINIMIZING PACKAGING

ACTION ITEMS:

OBJECTIVE 2: EDUCATION AND OUTREACH ON SOURCE REDUCTION

ACTION ITEMS:

RECYCLING

ACTION ITEMS:

Improving Recyclability of the Waste Stream

Collection/Separation

Processing

Marketing

Public Education

Landfilling and Incineration

OBJECTIVE 1: FURTHER EVALUATE ADDITIVES

ACTION ITEM:

OBJECTIVE 2: MONITOR PVC USE

ACTION ITEMS:

OBJECTIVE 3: IMPROVE DISPOSAL OPTIONS

ACTION ITEMS:

OBJECTIVES FOR HANDLING PROBLEMS OUTSIDE THE MSW MANAGEMENT SYSTEM

Wastewater Treatment Systems/Combined Sewer overflows/Stormwater Drainage Systems

Wastewater Treatment Systems

ACTION ITEM:

Combined Sewer Overflows

ACTION ITEMS:

Storm water Discharges

ACTION ITEMS:

Other Sources of Marine Debris

Vessels

OBJECTIVE 1: IMPLEMENT ANNEX V OF MARPOL

ACTION ITEMS:

OBJECTIVE 2: REDUCE IMPACT OF FISHING GEAR

ACTION ITEM:

Plastic Manufacturers, Processors, and Transporters

ACTION ITEMS:

Garbage Barges

ACTION ITEM:

Land- and Sea-Originated Litter

OBJECTIVE 1: SUPPORT LITTER RETRIEVAL AND CHARACTERIZATION

ACTION ITEMS:

OBJECTIVE 2: SUPPORT LITTER PREVENTION

ACTION ITEMS:

Degradable Plastics

ACTION ITEMS:

29. Recent Legislative and Regulatory Actions

LOCAL AND STATE ACTIONS

FEDERAL ACTIONS

IMPLICATIONS FOR PLASTICS RECYCLING

Tags

Waste Management, Recycling of Waste, Waste Disposal and Recycling, Recycling and Disposal, Waste Disposal & Collection, Waste Disposal, Waste Collection, Disposal & Recycling, Garbage & Recycling, Recycling and Waste Management, Solid Waste & Recycling, Recycling and Hazardous Waste Disposal, Recycle of Waste, Waste Disposal & Recycling Company, Solid Waste Collection, Recycle & Reduce Waste, Waste Management & Recycle Business, Dispose of Hazardous Waste, Solid Waste Management, Solid Waste & Recycling, Commercial Waste Collection & Disposal, Waste Management Company, Solid Waste Management and Recycling, Collections & Commercial Waste Management, Solid Waste Recycling, Medical Waste Disposal, Hospital Waste Management, Waste Recycling and Healthcare Waste Disposal, Medical Waste Recycling, Healthcare Waste Management & Recycling, Waste Treatment And Disposal, Commercial Medical Waste, Medical Waste or Biomedical Waste Disposal, Hospital Waste, Waste Management In Hospitals, Medical Waste & Recycling, Waste Reduction and Recycling Business, Healthcare Plastics Recycling, Healthcare Waste Solutions & Disposal, Hospital Plastics Waste & Recycling, Hospital Waste Recycling, Starting Your Own Medical Waste Disposal Company, How to Start Medical Waste Business, Medical Waste Disposal Business Plan,

Medical Waste Management Business, Starting Medical Waste Disposal Company, Recycling Medical Waste is a Profitable Business, Medical Waste Management Industry, Medical Waste Recycling Business, How to Start Waste Management Business, Waste Management Startups in India, Medical & Biomedical Waste Disposal, Medical Waste Disposal Company, Start Your Own Waste Recycling Business, Medical Waste Recycling Business in India, Municipal Solid Waste Recycling and Disposal, Municipal Solid Waste, Recycling and Disposal of Municipal Solid Waste, Municipal Solid Waste Recycling, Municipal Solid Waste Disposal, Solid Waste Reduction, Reuse and Recycling Business, Municipal Solid Waste (MSW) Management, Municipal Solid Waste Management, Recovery and Recycling of Municipal Solid Waste, Municipal Solid Waste Reduction Business, Municipal Solid Waste Management and Recycling Business, Municipal Solid Waste Collection Business, Waste Management Industry in India, Municipal Solid Waste Collection and Management, Municipal Solid Waste Management (MSW), MSW Recycling, Municipal Solid Waste Recycling (MSW) & Processing, Solid Waste Recycling Process, Solid Waste Recycling Plant, Municipal Solid Waste Processing, Solid Waste Treatment Plant, Municipal Solid Waste Treatment Plant, MSW Processing Plant, Biohazard Medical Waste Disposal, Biomedical Waste Management in India,

Industrial Waste, Waste Disposal Business Ideas & Opportunities in 2018, Bio-Medical Waste Disposal, Biomedical Waste Management, Biomedical Waste Treatment Plant, Disposal of Bio Medical Waste, Hazardous Waste Management, Biomedical Waste Treatment, Medical & Biomedical Waste Management, Biomedical Waste Recycling, Plastic Waste Management, Plastic Waste (Management and Handling) Business, Recycling of Plastic in India, Plastic Waste Disposal, Plastic Recycling Business, Medical, Municipal and Plastic Waste Management, Plastic Waste Management Ideas, Projects on Waste Management and Recycling, Plastic Recycling Project, Collection & Recycling of Plastic Waste, Project on Plastic Waste Disposal, Plastic Waste Management Project, How Plastic is Disposed in India, Plastic Recycling, How to Recycle Plastic? Plastic Waste Recycling Business Plan, Recycling Plastic in India, How to Start a Plastic Recycling Company, Business Plans for Recycling Business, Start Small Plastic Recycling Business, Starting Waste Plastics Recycling Business, Starting Profitable Plastic Recycling Business,

How to Start Plastic Recycling Company, How to Start Your Own Plastic Recycling Business, Recycling for Profit, Plastic Recycling Company, Project Report on Municipal Solid Waste (MSW) Management Industry, Detailed Project Report on Municipal Solid Waste (MSW) Management, Project Report on Plastic Waste Management, Pre-Investment Feasibility Study on Waste Management, Techno-Economic feasibility study on Waste Management, Feasibility report on Biomedical Waste Management, Free Project Profile on Municipal Solid Waste (MSW) Management, Project profile on Biomedical Waste Management, Download free project profile on Plastic Waste Management

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Our Approach

Requirement collection

Thorough analysis of the project

Economic feasibility study of the Project

Market potential survey/research

Report Compilation

Contact us

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