



Bulletin

MAHARASHTRA POLLUTION CONTROL BOARD

AUGUST 2023



Editorial

We are gladdened to present to the stakeholders MPCB's 30th edition of E-bulletin as we continue to series. This E-bulletin is an attempt to give you a brief insight into the latest happenings in the field in terms of various new initiatives undertaken, awareness programs being carried out by MPCB and introduce the reader to the breakthrough research which is being done in this field.

In this edition of the E-Bulletin, we present to you an elaborate article on Waste Management.

We hope this E bulletin is very much valuable, informative and helpful for the readers. And we will also greet your suggestion & feedback for betterment of our future E-bulletins.

ARTICLE

Waste Management

Waste management is the process of collecting, treating, and disposing of waste materials in an environmentally responsible manner. The principles of "Reduce, Reuse, and Recycle" form the foundation of sustainable waste management practices.



Here's an elaboration on each principle:

1. REDUCE:

- ◆ The first and most effective step in waste management is to minimize the generation of waste at its source.
- ◆ Reduction involves adopting practices that aim to minimize the amount of waste produced, such as:
 - Source Reduction: Reducing waste generation by using fewer materials or opting for products with less packaging.
 - Product Design: Designing products with longevity, recyclability, and minimal environmental impact in mind.
 - Composting: Diverting organic waste from the landfill by composting food scraps and yard waste, thus reducing the volume of waste generated.
 - Smart Consumption: Making informed choices as consumers, buying only what is necessary, and avoiding unnecessary packaging and single-use items.
- ◆ The reduction of waste at its source helps conserve resources, reduce energy consumption, and decrease the environmental impacts associated with waste management.

2. REUSE:

- ◆ Reusing items instead of discarding them helps extend their lifespan and reduce the need for new products.
- ◆ Reuse involves finding new purposes or giving items a second life, such as:
 - Donating or Selling: Donating unwanted but usable items to charitable organizations or selling them through online platforms or garage sales.
 - Repairing: Fixing broken or damaged items instead of replacing them, promoting a culture of repair and reducing waste.



- Sharing and Borrowing: Participating in sharing economies, where items like tools, books, or vehicles are shared among community members.
- Refillable and Reusable Containers: Opting for refillable bottles or reusable containers for beverages, household products, or groceries, reducing single-use packaging waste.
- Reusing items reduces waste generation, conserves resources, and decreases the demand for new products, thus reducing the environmental impact associated with their production.

3. RECYCLE:

- ◆ Recycling involves the collection and processing of waste materials to transform them into new products.
- ◆ Recycling helps conserve resources, reduce energy consumption, and divert waste from landfills.
- ◆ Commonly recycled materials include paper, cardboard, glass, metals (aluminum, steel), plastics, and certain types of electronics.
- ◆ The recycling process typically involves collection, sorting, processing, and manufacturing into new products.
- ◆ It is essential for individuals and communities to participate actively in recycling programs by separating recyclable materials from general waste and ensuring proper disposal in designated recycling bins or facilities.



◆ Governments and waste management entities play a crucial role in establishing recycling infrastructure, setting recycling targets, and promoting awareness and education about recycling practices.

Implementing the principles of Reduce, Reuse, and Recycle in waste management offers numerous benefits, including:

- ◆ Conservation of Resources: By reducing waste generation, reusing items, and recycling materials, finite resources, such as raw materials and energy, can be conserved.
- ◆ Reduction of Environmental Impact: Proper waste management practices minimize pollution, reduce greenhouse gas emissions, and prevent the depletion of natural resources.
- ◆ Energy Savings: Recycling materials generally requires less energy compared to producing new materials from virgin resources. This energy savings

can contribute to lower carbon emissions and a more sustainable energy footprint.

- ◆ Economic Opportunities: The waste management sector, including recycling and reprocessing industries, can create jobs, promote local economic development, and contribute to a circular economy.
- ◆ Public Health and Well-being: Proper waste management helps prevent environmental contamination, improves sanitation, and reduces the risks associated with improper waste disposal, thus protecting public health.

Adopting the principles of Reduce, Reuse, and Recycle is crucial for sustainable waste management. It requires individual actions, community participation, government support, and effective waste management systems to minimize waste generation, conserve resources, and promote a circular economy.



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EXTRAORDINARY

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अधिसूचना

नई दिल्ली, 26 जुलाई, 2023

का.आ. 3372(अ).—केन्द्रीय सरकार, अधिसूचना संख्यांक का.आ.3250(अ), तारीख 20 जुलाई, 2022 द्वारा यह निर्देशित करती है कि सभी स्टैंड अलोन री-रोलिंग इकाईयां या कोल्ड रोलिंग इकाईयां, जो इस अधिसूचना की तारीख को यथास्थिति, संबद्ध राज्य प्रदूषण बोर्ड या संघ राज्यक्षेत्र प्रदूषण नियंत्रण समिति से स्थापन की विधिमान्य सहमति और प्रचालन की सहमति के साथ इस अधिसूचना की तारीख को विद्यमान हैं और प्रचालन में हैं, पर्यावरण अनापत्ति के अनुसरण में निर्देश निबंधन (टीओआर) अनुदत्त करने के लिए ऑनलाइन आवेदन करेंगी और उक्त इकाईयों को भारत सरकार के तत्कालीन पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय की अधिसूचना संख्यांक का.आ.1533(अ) तारीख 14 सितम्बर, 2006 की मद 3 (क) के अनुसार मानक निदेश निबंधन अनुदत्त किए जाएंगे और उन्हें लोक परामर्श की अपेक्षा से छूट प्राप्त होगी, परंतु टीओआर अनुदत्त करने के लिए आवेदन, इस अधिसूचना की तारीख से एक वर्ष की अवधि के भीतर किया जाएगा।

और, केन्द्रीय सरकार जो आवश्यक समझे उक्त अवधि के छह मास की और अवधि बढ़ा सकती है ;

अतः अब, केन्द्रीय सरकार, पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 3 द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, भारत सरकार के पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय की अधिसूचना संख्यांक का.आ. 3250 (अ), तारीख 20 जुलाई, 2022 में निम्नलिखित संशोधन करती है, अर्थात् :-

उक्त अधिसूचना के पैरा 1 में, परंतुक में, "एक वर्ष" शब्दों के स्थान पर "एक वर्ष और छह मास" शब्द रखे जाएंगे।

[फा. सं. आईए-जे-11013/8/2019-आईए.II(I)]

डॉ. सुजीत कुमार बाजपेयी, संयुक्त सचिव

टिप्पणः- मूल अधिसूचना, भारत के राजपत्र, असाधारण, भाग 2, खंड 3, उपखंड (ii), अधिसूचना का.आ. 3250 (अ), तारीख 20 जुलाई, 2022 द्वारा प्रकाशित की गई थी।

Government of India
Ministry of Environment, Forest and Climate Change
(Forest Conservation Division)

Indira Paryavaran Bhawan,
Aliganj, Jorbagh Road,
New Delhi-110003

Dated: August, 2023

NOTIFICATION



To,
The Addl. Chief Secretary/Principal Secretary (Forests),
All State/UT Governments
Sub: Provisions and guidelines on compensatory afforestation - reg.

Madam/Sir,

I am directed to refer to this Ministry's letter of even number dated 13.06.2023 on the above subject and to say that during an inter-ministerial review of the provisions relating to compensatory afforestation, it has been observed that during the last year after the enactment of Forest (Conservation) Rules, 2022, the Ministry has issued guidelines on the compensatory afforestation. Scattered information on compensatory afforestation in rules and guidelines makes it inconvenient for the users to comprehend the provisions efficiently, it has therefore, been desired that a consolidated provisions of the compensatory afforestation may be compiled and issued by the Ministry to enable the users to understand and apply them conveniently. The matter has also been considered by the Advisory Committee in its meeting held on 17.07.2023 and the Committee observed that the Forest (Conservation) Rules, 2022 and guidelines dated 13.06.2023 issued by the Ministry provides for enabling provisions for raising compensatory afforestation in various lands. The Central PSU and State Government undertakings can raise over degraded forest land provided no acquisition of non-forest land is involved. As per the enabling provisions already been provided by the Ministry to raise CA over various lands, including degraded forest land and Accredited Compensatory Afforestation lands, the consolidated guidelines have been concurred and recommended by the Advisory Committee. Minutes of the meeting of the Advisory Committee may be accessed at <https://parivesh.nic.in>.

Based on the recommendation of the Advisory Committee and approval of the same by the competent authority of the MoEF&CC, new Delhi, the Central Government hereby issues the consolidated guidelines on raising compensatory afforestation as annexed herewith. This issues with the approval of the competent authority.

Encl: As above.

Yours faithfully,
(Charan Jeet Singh)
Scientist 'D'

Copy to:

1. The Principal Chief Conservator of Forests, All State Govts./UTs
2. The Dy Director General of Forests, All Regional Offices of the MoEF&CC
3. The Nodal Officer (FCA), O/o the PCCF, All State Govts./UTs
4. Monitoring Cell, FC Division, MoEF, New Delhi
5. Guard File



MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

New Delhi, the 30th August, 2023

**MoEFCC amended the notification on 30th August, 2023
regarding the restrictions and prohibitions on new projects,
activities or the expansion or modernization of existing projects or activities**

S.O. 3840(E).—WHEREAS, the Central Government in the erstwhile Ministry of Environment and Forests, under sub-section (1) and clause (v) of sub-section (2) of section (3) of the Environment (Protection) Act, 1986 issued a notification vide number S.O.1533 (E), dated the 14th September, 2006 (hereinafter referred to as the EIA Notification) for mandating prior environmental clearance for certain categories of projects;

AND WHEREAS, the Central Government, *inter alia*, amended Appendix-IX to the EIA Notification vide notification number S.O. 1224(E), dated the 28th March, 2020, to exempt certain activities from the requirement of prior environmental clearance in respect of certain projects;

AND WHEREAS, the National Green Tribunal, Principal Bench at New Delhi vide its order dated the 28th October, 2020 in Original Application No. 190 of 2020 in the matter of Noble M Paikada vs. Union of India & Ors. passed the directions for revisiting the said notification;

NOW, THEREFORE, in exercise of the powers conferred by sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986, (29 of 1986), read with sub-rule (4) of rule 5 of the Environment (Protection) Rules, 1986, the Central Government, after having dispensed with the requirement of notice under clause (a) of sub-rule (3) of rule 5 of the said rules, in public interest, hereby makes following further amendments in the notification of the Government of India number S.O 1533(E), dated the 14th September, 2006, namely:-

In the said notification, in Appendix-IX, for serial numbers 6 and 7 and the entries relating thereto, the following serial number and entries shall be substituted, namely:-

"6. Extraction or sourcing or borrowing of ordinary earth for the linear projects such as roads, pipelines, etc. shall be subject to the compliance of standard operating procedures and environmental safeguards issued in this regard from time to time.

7. Dredging and de-silting of dams, reservoirs, weirs, barrages, river and canals for the purpose of their maintenance, upkeep and disaster management shall be subject to the compliance of environmental safeguards issued in this regard from time to time."

[F. No. 3-70/2020-IA.III]

DR. SUJIT KUMAR BAJPAYEE, Jt. Secy.

Note: The principal notification was published in the Gazette of India, Extraordinary Part-II, Section 3, Sub-section (ii)vide, number S.O. 1533(E), dated the 14th September, 2006 and last amended vide the notification number S.O. 2226(E), dated the 18th May, 2023.

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Waste generation refers to the creation of waste materials through various human activities, including residential, commercial, and industrial sectors.

Waste can be classified into different categories such as municipal solid waste, hazardous waste, construction and demolition waste, electronic waste, and organic waste.

Understanding the sources and types of waste generated is crucial for designing effective waste management strategies.

1 WASTE MINIMIZATION:

Waste generation refers to the production of waste materials from various sources, including households, industries, commercial establishments, and construction sites.

- ◆ Understanding the different types and quantities of waste generated is crucial for developing effective waste management strategies.
- ◆ Waste characterization studies help identify the composition, volume, and properties of waste, which informs decisions on collection, treatment, and disposal methods.

2 WASTE COLLECTION:

Waste collection involves the systematic gathering and transportation of waste from its point of origin to designated collection points or waste management facilities.

- ◆ Proper waste collection systems ensure that waste is efficiently and hygienically collected, preventing littering, pollution, and health hazards.
- ◆ Collection methods may include curbside collection, door-to-door collection, or communal collection points.
- ◆ Waste collection is often carried out by municipal or private waste management entities, and it can involve different types of waste, such as general waste, recyclables, organic waste, and hazardous waste.

3 WASTE SEGREGATION:

Waste segregation is the process of separating different types of waste at the source to facilitate proper handling, treatment, and disposal.



facilitate proper handling, treatment, and disposal.

- ◆ Segregation is typically done into categories such as recyclables (paper, plastic, glass, metals), organic waste, non-recyclables, and hazardous waste.
- ◆ Effective waste segregation helps maximize the recovery of valuable resources, reduce contamination, and enable appropriate treatment of specific waste streams.

4 WASTE TREATMENT AND PROCESSING:

Waste treatment involves various processes to transform waste into a more manageable or less harmful form.

Common waste treatment methods include:

- ◆ Recycling: The process of converting waste materials into new products or raw materials for manufacturing.
- ◆ Composting: The decomposition of organic waste into nutrient-rich compost, which can be used as a soil amendment.
- ◆ Anaerobic Digestion: The breakdown of organic waste in the absence of oxygen to produce biogas and nutrient-rich digestate.
- ◆ Waste-to-Energy: The conversion of waste materials into energy through processes such as incineration or gasification.
- ◆ Mechanical and Biological Treatment: Combining mechanical processes (sorting, shredding) with biological processes (composting, anaerobic digestion) to treat mixed waste.
- ◆ Waste treatment aims to minimize the volume and environmental impact of waste, recover resources, and reduce the need for landfilling.



5 WASTE DISPOSAL:

Waste disposal is the final stage of waste management and involves the safe and environmentally sound disposal of waste that cannot be recycled or treated.

- ◆ Landfilling: The most common method of waste disposal involves burying waste in landfills designed to minimize environmental contamination.
- ◆ Proper landfill management includes measures to prevent groundwater and soil pollution, methane capture, and long-term monitoring.
- ◆ Specialized disposal methods are required for hazardous waste, such as incineration, secure landfilling, or specialized treatment facilities.
- ◆ The goal of waste disposal is to ensure minimal environmental impact and protect public health.

6 EXTENDED PRODUCER RESPONSIBILITY (EPR):

Extended Producer Responsibility is a policy approach that holds manufacturers responsible for the entire lifecycle of their products, including post-consumer waste management.

recycling, establish take-back programs, and financially contribute to waste management systems.

- ◆EPR programs promote resource conservation, waste reduction, and the development of a circular economy.

7 WASTE MANAGEMENT TECHNOLOGIES AND INNOVATIONS:

- ◆Advances in waste management technologies contribute to more efficient and sustainable waste management practices.
- ◆Examples of innovative technologies include sensor-based waste sorting systems, waste-to-energy technologies, decentralized waste treatment systems, and digital waste management platforms.



8 TECHNOLOGICAL INNOVATIONS

Technological innovations can improve waste sorting accuracy, increase resource recovery, reduce environmental impacts, and enhance overall waste management efficiency.

- ◆Governments play a crucial role in developing waste management policies, setting waste reduction targets, implementing recycling initiatives, and ensuring compliance with environmental regulations.
- ◆International agreements and conventions also address waste management and promote sustainable practices at a global level.

9 WASTE MANAGEMENT POLICIES AND REGULATIONS:

Effective waste management requires supportive policies, regulations, and frameworks at the national, regional, and local levels.

By addressing these key topics in waste management, societies can work towards minimizing waste generation, maximizing resource recovery, reducing environmental impacts, and creating a more sustainable and circular economy.



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