

# **Guidelines for submission of proposals under the Scheme Waste Minimisation in Small & Medium Industries (SMIs)**

**CP Division**  
**Government of India**  
**Ministry of Environment & Forests**  
**Paryavaran Bhawan**  
**C.G.O. Complex, Lodhi Road**  
**New Delhi 110 003**

**Ministry of Environment and Forests**  
**Guidelines for submission of proposals under the Scheme Waste**  
**Minimisation in Small & Medium Industries (SMIs)**

**Objectives**

The policy statement for abatement of pollution lays emphasis on preventive aspects of pollution abatement and promotion of technical inputs to reduce industrial pollution. One of the simplest preventive strategies is to minimise the waste in production of products and goods. The main objective of waste minimisation is to optimize the consumption of raw materials and also reduce waste generation by adopting production techniques which are cleaner in nature and which can be adopted by the existing units without necessarily changing the production processes or unit operations. The approach to the problem is towards utilising the existing production facilities in an optimal manner. The objective of the scheme is to assist the primary small units and some medium scale units (where investment cost is less than Rs.5.00 crores)

who do not have access to the requisite technical expertise to achieve waste minimization but excludes procurement of equipment and hardware. The programme aims at not only in achieving waste reduction through optimization in one or more units but also serve to build confidence among other industrial units in the cluster/region to adopt similar initiatives. It has been established that by adopting waste minimisation approach the units are able to reduce not only the generation of wastes but also reduce their overall cost of production and thereby operate in a more environmental friendly manner.

## Components of the Programme

2. The activities to be undertaken include:

- (i) Identification of the industrial sectors, which have the possibility of reducing the waste generated within the existing operation, leading to conservation of resources.
- (ii) Identification of clusters of small and medium scale industries and the units willing to adopt the waste minimization approach.
- (iii) Profile the sector/cluster/units giving information on the raw material consumption, waste generation including the existing treatment and disposal methods.
- (iv) Feasibility study of implementing the waste minimisation schemes for selected sectors/clusters/units..
- (v) Demonstration of the waste minimization in one or more units through actual implementation of the waste minimization options/solutions.
- (vi) Conducting workshop/s for entrepreneurs bringing out the salient features of waste minimisation measures that can be adopted/ replicated.

## Eligibility

3. The application for assistance under waste minimisation programme can be submitted by either industrial entrepreneurs or consultants or industry association or similar agency engaged in the area of waste minimisation. The

assistance will be provided to develop and establish waste minimisation approach in one or more units which can be adopted by a cluster of small and medium enterprises that are engaged in the production of similar products/goods. An illustrative list of potential sectors provided in Annex-1. The consultant/entrepreneur can also select sectors outside the illustrative list, provided they could justify the same. However, the industry/ies selected must belong to small and medium scale only.

## Application

4. The application should be submitted in the prescribed application form attached with the guidelines. The projects should be of short duration not exceeding twelve months. The projects proposals would be examined by the Ministry as per prescribed procedure and decision taken accordingly. The grant of assistance under waste minimisation scheme is subject to the Ministry being satisfied with the proposal, the qualification and experience of the applicant, the need for taking up the proposed project and the availability of funds. The Ministry also has the right to reject the proposals without assigning any specific reasons. If a project is recommended for assistance, the budget will be decided as per the norms. The funds for the project will be released in three instalments, i.e. 40% at the time of sanctioning of the project and upon submission of detailed profile of the selected sector and cluster, which should *inter-alia* include identification of the demonstration units and their commitment. The second instalment of another 40% will be released on completion of the detailed field studies (compiling and developing base line information, feasibility studies of preventing the waste, material balance etc.). Final instalment of 20% will be released after implementation of waste minimisation measures, evaluation of the implementation of the project and organising a workshop for dissemination of the information to the other units in the cluster and submission of the final Report and submission of Utilisation Certificate/Expenditure Statement (Audited in case of non-governmental organisations)

## Documents to be submitted

5. Applicant should provide a curriculum vitae (not exceeding 2 pages) along with the application, which should

inter-alia include expertise in process/ operation of the industry concerned/ waste minimisation techniques of similar industry/ association with the waste minimisation programme. [२१] The applicant should also be familiar with the operation in the cluster in which the proposed waste minimisation programme is to be taken up. [२१] If the organisation is NGO or private organisation, it will submit last three years audited statement of accounts and registration certificate. Once the project is sanctioned the project proponent has to submit a Bond as per the pro-forma enclosed in Annex-2. [२१] Funds will be released in installment on submission of Utilisation Certificates and expenditure statement (audited in case of non-government organisation) for the earlier releases as per the pro-forma enclosed in Annex-3.

### Monitoring and evaluation

6. [२१][२१][२१][२१][२१][२१] During the course of implementation of the waste minimisation scheme the Ministry of Environment and Forests may send their expert/ experts to visit the site and monitor the programme. [२१] The experts would evaluate the programme and give their recommendation which would *inter-alia* include recommendations regarding continuation of the programme.

## APPLICATION FORM FOR GRANT OF ASSISTANCE UNDER WASTE MINIMISATION PROGRAMME

S. No.	Item	Details
1.	Name of the Applicant (In block letters)	
2.	Full address of the applicant (in block letters)	

	Pin Code:	<input type="text"/>
	Tel./Fax No./e-mail	<input type="text"/>
3.	Product/ process propose to be covered under waste minimisation scheme (Brief Resumè not exceeding one page may be attached)	
4.	(a) Size of the units proposed to be covered based on product out put (tonnes/day or tonnes/year)	
	(b) Raw material used by the industry (including coal, furnace oil, LSHS, diesel etc.)	
	Item:	Quantity in tonnes/litres/Kg etc. per day/per anum
	(i)	
	(ii)	
	(iii)	
	.	
5.	Water consumption by the industry per day (litres/day)	



(i) Cooling water	
(ii) Process water	
(iii) Steam generation	

S. No.	Item	
6.	Energy consumption by the electrical Co. (kwh/tonne of product or number of units consumed per year)	
7.	Process Steps Adopted (Provide a flow sheet) Identifying both chemical and Mechanical operation	

8.	Wastes generated: (a) Liquid wastes (i) (ii) <input type="text"/>	<table border="1"> <thead> <tr> <th>WASTE</th> <th>QUANTITY</th> <th>TREATMENT</th> </tr> </thead> <tbody> <tr> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> </tbody> </table> DISPOSAL	WASTE	QUANTITY	TREATMENT	<input type="text"/>	<input type="text"/>	<input type="text"/>
WASTE	QUANTITY	TREATMENT						
<input type="text"/>	<input type="text"/>	<input type="text"/>						
	(b) Solid wastes (i) (ii)							
9.	Gaseous/Fugitive emission <input type="text"/>							
10.	Current disposal method (a) Liquid wastes (i) (ii) <input type="text"/>	<table border="1"> <thead> <tr> <th>WASTE</th> <th>QUANTITY</th> <th>TREATMENT</th> </tr> </thead> <tbody> <tr> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> </tbody> </table> DISPOSAL	WASTE	QUANTITY	TREATMENT	<input type="text"/>	<input type="text"/>	<input type="text"/>
WASTE	QUANTITY	TREATMENT						
<input type="text"/>	<input type="text"/>	<input type="text"/>						
	(b) Solid wastes (i) (ii)	<table border="1"> <thead> <tr> <th>WASTE</th> <th>QUANTITY</th> <th>TREATMENT</th> </tr> </thead> <tbody> <tr> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> </tbody> </table> DISPOSAL	WASTE	QUANTITY	TREATMENT	<input type="text"/>	<input type="text"/>	<input type="text"/>
WASTE	QUANTITY	TREATMENT						
<input type="text"/>	<input type="text"/>	<input type="text"/>						
S. No.	Item							
11.	(a) Key Problem							



	<p>Areas proposed to be addressed</p> <p>(i)</p> <p>(ii)</p> <p>(iii)</p> <p>(b) <input type="checkbox"/> <input type="checkbox"/> Specific Problem to be taken up for study</p>	
12.	Detailed methodology of the proposed study (add additional sheets, if required)	
13.	Whether the industry <input type="checkbox"/> s operation seasonal or round the clock or based on exports demand	
14.	Number of industrial units in the area producing the same/ similar product	
15.	<p>Scale of operation of the units in the cluster</p> <p>(i) Minimum</p> <p>(ii) Maximum</p> <p>(iii) Average</p>	

16.	<b>Activity(Indicative)</b>	<b>No. of Months</b>
	(i) Identification and characterisation of wastes	
	(ii)(a) Material balance  (b) Water balance  (c) Energy balance	
	(iii) Preparation of feasibility study	
	(iv) Implementation of waste minimisation measures	
	(v) Demonstration study	
	(vi) Workshop	

S. No.	Item		
17.	Funds required	Number of man months	Fund required (Rs.000)
	(i) Collection of basic information		

(ii) Characterisation of wastes		
(iii) (a) Material balance <div style="display: flex; justify-content: space-between;"> <div style="text-align: center;"> <span style="border: 1px solid black; padding: 2px;">२१</span> <span style="border: 1px solid black; padding: 2px;">२१</span> <span style="border: 1px solid black; padding: 2px;">२१</span> <span style="border: 1px solid black; padding: 2px;">२१</span> <span style="border: 1px solid black; padding: 2px;">२१</span> </div> <div>           (b) Water balance         </div> </div>		
<div style="display: flex; justify-content: space-between;"> <div style="text-align: center;"> <span style="border: 1px solid black; padding: 2px;">२१</span> <span style="border: 1px solid black; padding: 2px;">२१</span> <span style="border: 1px solid black; padding: 2px;">२१</span> <span style="border: 1px solid black; padding: 2px;">२१</span> <span style="border: 1px solid black; padding: 2px;">२१</span> </div> <div>           (c) Energy balance         </div> </div>		
(iv) Preparation of feasibility report		
(v) Implementation		
(vi) Demonstration		
(vii) Travel		
(viii) Documentation		
(ix) Workshop		
(x) Contingency		
(xi) Laboratory Charges		

**Note:**

✓ **Activity schedule to be provided.**

✓ **The project shall be carried out in 2 phases:**

(i) २१ २१ २१ २१ २१ **Preparation of pre-feasibility study**

(ii) २१ २१ २१ २१ **Demonstration Workshop and final report**

✓ **The physical and financial targets should be given separately for both the phases.**

Signature of the Applicant

## POTENTIAL INDUSTRIAL SECTORS FOR WASTE MINIMIZATION STUDIES

SI No.	Sectors
1.	PULP & PAPER
2.	REFRACTORIES
3.	DYE & DYE INTERMEDIATES
4.	<b>FOUNDRY &amp; FORGING</b>
5.	<b>ELECTROPLATING</b>
6.	TEXTILE PROCESSING
7.	DAIRY
8.	PAINTS
9.	RESINS
10.	<b>BULK DRUG/PHARMA</b>
11.	MARBLE & SLURRY
12.	RICE MILL
13.	RUBBER PROCESSING
14.	<b>STEEL ROLLING MILLS</b>
15.	PESTICIDE FORMULATION
16.	PRINTED CIRCUIT BOARD
17.	BATTERY MANUFACTURING (SMALL SCALE UNITS)
18.	EDIBLE OIL
19.	UNTENSIL MANUFACTURING
20.	SAGO/TAPIOCA PROCESSING
21.	<b>BRICK KILNS/ROOF TILING</b>
22.	COIR DFIBRING
23.	PACKAGING MATERIALS

24. TANNERY
25. FERTILIZER (SMALL SCALE UNITS)
26. SAFETY MATCH BOX
27. FLOUR MILLS
28. SCREEN PRINTING
29. PLASTIC COMPONENTS
30. ACTIVATED CARBON-CHARCOAL

**Priority Industrial Sectors for submission of proposals on Waste Minimization Studies in 2004-2005,**

**Sl No.** **Sectors**

1. FOUNDRY & FORGING
2. ELECTROPLATING
3. TEXTILE DYING & PROCESSING
4. BULK DRUG/PHARMA
5. STEEL ROLLING MILLS
6. BRICK KILNS/ROOF TILING
7. TANNERY
8. ACTIVATED CARBON - CHARCOAL

Annex-2

**BOND**

KNOW ALL MEN BY THESE PRESENTS THAT we, signed for and on behalf of a Society registered under the \_\_\_\_\_ and having its office at \_\_\_\_\_ (herein after called the Obligors) which terms shall unless excluded by or, repugnant to the context be deemed to include its successors, permitted assigns and all persons entitled to and capable of disposing off the assets and properties of the obligors) are held and firmly bound to the President of India (herein-after called the Government) which term shall unless exclude or repugnant to the context be deemed to include his successors and assigns) in the sum of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) well and truly to be paid to the Government on demand and without a demur for which payment we firmly bind ourselves by these presents.

SIGNED this \_\_\_\_\_ day of \_\_\_\_\_ in the year Two thousand \_\_\_\_\_.

WHEREAS on the obligors request the Government has as per Union Ministry of Environment's letter No. \_\_\_\_\_ dated \_\_\_\_\_ (herein after referred to as the Letter of Sanction) which forms an integral part of these presents and a copy whereof is annexed hereto as Annexure (A) agreed to made in favor of the obligors for the purpose of grant of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) out of which

Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) have on \_\_\_\_\_ been paid to the obligors (the receipt of sum the \_\_\_\_\_ do hereby admit and acknowledge) on condition of the obligors have agreed to do.

NOW the condition of the above-written obligation is such that if the obligors duly fulfil and comply with all the terms and conditions mentioned in the Letter of Sanction then the above written bond or obligation shall be void and of no effect; but otherwise it shall remain in full force, effect and virtue.

And these presents further witness as under :

The decision of the Secretary to the Government of India in the Ministry of Environment on the question whether there has been breach or violation of any of the terms and conditions mentioned in the letter of sanctions shall be final and binding on the obligors, and

The Government have agreed to bear the stamp duty, if any, chargeable on the presents.

In witness whereof those Presents have been executed on behalf of the obligors pursuant to the Resolution No. \_\_\_\_\_ dated \_\_\_\_\_ passed by the Board of the Management of the Society (Governing Body) of the obligors, on the and year herein above-written.

Obligors in the presence of  
with name and address

1. \_\_\_\_\_  
Signature of the grantee institution

2.

\_\_\_\_\_  
(for office use only)

\_\_\_\_\_  
Accepted for and on behalf  
of the President of India

Witness:-

\_\_\_\_\_  
(Name and Designation)

Name and address:-

(TO BE SENT IN DUPLICATE TO MINISTRY OF ENVIRONMENT & FORESTS)

For the Financial Year (from 1st April to 31st March of the next calendar year).

1. Title of the Project/ Scheme

2. Name of the organisation

3. Principal Investigator

4. Ministry of Environment & Forests letter

No. and date of sanctioning the Project

5. Amount brought forward

from the previous financial year

quoting Ministry of Environment

& Forests letter no. and date on

which the authority to carry forward

the said amount was given.

6. Amount received from Ministry

of Environment and Forests during Amount.

(Please give no. and dates of sanctions

of sanctions showing the amount paid).

Total:

7. Total amount that was available for :

expenditure (including commitments)

incurred during the Financial Year

(S.No. 5+ S. No.6).

8. Actual expenditure (excluding :

commitments) incurred during

the financial year.

9. Unspent balance refunded :

if any (Please give details

of cheque no. etc.)

10. Balance amount available :

at the end of Financial year.

11. Amount allowed to be carried :

forward to the next Financial Year.

Vide letter No. and date.

Certified that the expenditure of Rs. .... (Rupees .....).

Mentioned against column 8 was actually incurred on the project/scheme for the purpose for which it was sanctioned.

Date:



Signature of Principal Head Investigator of the Organization  
Signature of Registrar/Accounts Officer  
Signature of

Our Ref. No.

Accepted and Countersigned

Date: COMPETENT

AUTHORITY

MINISTRY OF ENVIRONMENT & FORESTS