

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH AT NEW DELHI**

EXECUTION APPLICATION No. 23 OF 2023

IN

MA No. 33 OF 2023

IN

OA NO. 75 OF 2023

IN THE MATTER OF:

Jaishree Bansal

... Petitioner

Versus

State of UP & Ors

... Respondents

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Ghaziabad Nagar Nigam

Through Counsel

Date: 05.10.2023

Place: Ghaziabad



(VIBHAV MISHRA)

Advocate-on-Record

Ch No. 221, C.K. Daphtary Block,
Tilak Lane, Supreme Court of India

New Delhi-110001

(M): 9473565666

(E): vibhavamishra@outlook.in

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STATUS REPORT

MOST RESPECTFULLY SHOWETH:

1. That the present matter is pending before this Hon'ble Tribunal and is next listed on 01.11.2023.
2. That in compliance of the directions dated 10.02.2023 issued by this Hon'ble Tribunal in OA No. 75/2023, action taken report dated 14.03.2023 was filed by the Municipal Corporation, Ghaziabad (GNN), whereby it was deposed before this Hon'ble Tribunal that the Detailed Project Report was formulated for Land Reclamation through Bio-mining and Resource Recovery.

3. That in paragraph 4 of the order dated 26.04.2023, this Hon'ble Tribunal observed as under:

“... It is not clear what is the scale laid down for remediation cost and how much is collected from waste generators. This has to be done under the statutory rules instead of everything remaining loose ended and undefined. It is also not clear as to where the waste is now being dumped after the dump site has been closed in September, 2022 on account of it having exceeded its capacity, as stated in the report. Thus, the matter needs to be looked into and remedial action taken at higher level in the State.”

4. That the report filed by the Municipal Corporation was placed before this Hon'ble Tribunal in MA No. 33 of 2023, whereby this Hon'ble Tribunal was pleased to pass the following order:

“In view of above, the District Magistrate and Ghaziabad Nagar Nigam may take further remedial measures as per law and give their report to the Chief Secretary, UP within one month from today. The Chief Secretary, UP may review the compliance

status and ensure further remedial action and send a separate report along with the report to be filed in O.A. No. 606/2018 with the Registrar General of this Tribunal. If found necessary, the registry may place the matter before the Bench for further orders. The report may give status of legacy waste at the site in question and any other site apart from Jagjeevanpur, apart from status and adequacy of waste processing facilities.”

5. That it is most respectfully submitted that on 24.06.2022, the District Health Officer (Nagar Swasthya Adhikari) entered into an agreement with M/s Geron Engineering Pvt Ltd after open tendering process, with M/s Geron Engineering Pvt Ltd being the L-1, for handling, storage, segregation, processing and scientific disposal of Municipal Solid Waste (MSW) received at site from the GNN of 1500 TPD capacity for a period of 5 years or till the commissioning of Waste-to-Energy plant proposed at Galand or any other place is allotted by the GNN.

The true copy of the Contract Agreement dated 24.06.2022 between Nagar Swasthya Adikhari, Ghaziabad

Nagar Nigam and M/s Geron Engineering Pvt Ltd is annexed herewith and marked as **ANNEXURE A-1 (Page 18 to 22)**.

- 6.** The scope of the work includes that M/s Geron Engineering Pvt Ltd shall identify the land and create the processing site for the disposal of MSW.
- 7.** No legacy waste is being created by the GNN and as on today and; there is no “dump-site” in Ghaziabad. The processing-site is in Village- Morta where with the help of 3 Warrior Machines, 5 Trommel, 4 ballistic and 9 poklane machines, the capacity of which are as under:

Machines	Units	Capacity	Processing
Warrior	3	50 TPH	1200 TPD*
Trommel	5	30 TPH	1200 TPD*
Ballistic	4	30 TPH	960 TPD*
Poklane	9	-	-

** when machines function for 8 hours in ideal climatic conditions.*

- 8.** That from September 2022, all waste collected is directly sent to Village- Morta, where processing site of M/s Geron Engineering Pvt Ltd is located and there is door-to-door waste collection with maximum source-segregation. It is humbly submitted before this Hon’ble Tribunal that no alternate land except Village- Morta is available with Ghaziabad Nagar Nigam for processing of MSW.

9. That the salient features of the contract are:
- I. *Development, Operation and maintenance of the required infrastructure for Handling, Storage, Segregation, Processing and Scientific Disposal of MSW as per SWM Rules 2016 by M/s Geron Engineering Pvt Ltd.*
 - II. *The compliance of Solid Waste Management Rules 2016 and other applicable laws within Ghaziabad.*
 - III. *GNN shall arrange to transport only the MSW waste till the identified processing site. The MSW waste should not contain C&D waste, drain silt waste, horticulture waste, biomedical waste, hazardous waste or any prohibited waste as per SWM Rules 2016. However, in case of any C&D Waste / Drain silt is found in the vehicles transporting the waste, it shall be stored separately by the Contractor and the same information will be shared with GNN and C&T Operator on the same day.*
 - IV. *M/s Geron Engineering Pvt Ltd to provide adequate plant and machinery for processing / segregation of solid waste including mobile machinery of adequate capacity.*
 - V. *M/s Geron Engineering Pvt Ltd to setup the MRF facility for Segregation / processing of MSW into dry, wet and inert*

fractions by adopting appropriate technologies as per applicable law. The disposal of segregated fractions shall be done by the Contractor outside the MRF facility as per applicable law.

- VI. Identification & finalization of the land for setting up the MRF for unloading and handling of the MSW and its segregation/processing shall be in scope of the Contractor. The land should have access road to the site. GNN shall endorse the land lease agreement between the private party and the Contractor. In case the payment for land shall be done by GNN, it shall be deducted from the Contractor's bill. In case land is provided by GNN, market rent of the land will be deducted by GNN from the Contractor's bill.*

.....

- XII. The MSW waste shall be stored for each day separately for 30-45 days. Post the decomposition of waste in 45 days, it shall be processed.*
- XIII. Unloading of waste shall be facilitated 24x7 for all days.*
- XIV. During the rainy days, MSW received at the plant shall be stored and can be processed by the Contractor post the*

rainy season is over. The Contractor shall ensure that any backlog MSW stored due to rainy season is cleared within 3-4 months post the rainy season.

....

- XVI. The RDF shall be sent either for co-processing or waste to energy plant for scientific disposal at the own cost of the Contractor.*
- XVII. The Contractor shall have no right to claim the EPR under this agreement as GNN has separate arrangement for the same.*
- XVIII. GNN shall not provide any, electricity or facility for the processing plant. The entire responsibility for infrastructure development at the processing plant and its operation & management shall be of the Contractor.*
- XIX. Any MSW generated within the GNN jurisdiction area by other government or local bodies like GDA, Awas Vikas or any Bulk Waste Generator like Airport authority, railways, malls, societies etc. can be directly transported by the respective body to the MSW processing facility and the respective body shall directly pay the Contractor same price per ton as finalized under this contract.*

XX. Till the time, the Contractor identifies and makes the new processing site operational, it shall setup the mobile machinery at the current site of GNN and start processing the existing waste. The Contractor shall ensure processing of existing waste also at the same price per ton basis as finalized in this contract.

- 10.** That in the 10th Meeting of the Swatchh Bharat Mission 1.0-Urban on 28.02.2023 for the Solid Waste Management conducted under the chairmanship of the Additional Chief Secretary/ Principal Secretary, Urban Development Department was conducted whereby guidelines were formulated that the Computation of the Legacy Waste shall be done by Satellite Imaging, Contour Survey & weighing (whichever is less).

The true copy of the Minutes of the 10th Meeting of the Swatchh Bharat Mission 1.0- Urban on 28.02.2023 for the Solid Waste Management conducted under the chairmanship of the Additional Chief Secretary/ Principal Secretary, Urban Development Department is annexed herewith and marked as **ANNEXURE A-2 (Page 23 to 71)**.

- 11.** That the DPR of the GNN prepared on the basis of third-party survey was considered in the meeting in the 10th Meeting of the

Swatchh Bharat Mission and it was noted that at present 272214 Tonne of Legacy waste is present within the Municipal Limits of Ghaziabad. In the DPR prepared by the GNN with the help of third-party survey for Land Reclamation through Bio-mining, Resource Recovery and complete eradication of Legacy waste, the estimated cost of the project was calculated to Rs. 9,11,00,000.00 (Rupees Nine Crore and Eleven Lac Only), whereas after vetting of the DPR from the Regional Centre for Urban & Environmental Studies, Lucknow (RCUES), the cost of the legacy waste treatment was enhanced to Rs. 13,41,28,013.00, which comes to Rs. 492.73 per-tonne.

- 12.** That advertisement dated 22.04.2023 was published by the GNN in the newspapers calling upon the bid for the treatment of Legacy Waste through Bio-remediation, resource recovery and scientific rejects disposal at Bhikkanpur Pipeline Road, Ghaziabad.
- 13.** That after technical examination of Bids, Financial bids were opened on 30.05.2023, wherein M/s Rollz India Waste Management Pvt Ltd & Geron Engineering Pvt Ltd. were declared as L-1 quantifying the cost of processing at Rs. 478/-

per- tonne as against the cost estimated by the RCUES, which was at Rs. 492.73 per-tonne.

14. That GNN is not only dedicated to safe-guard environment, but also committed to save government exchequer.
15. That the State- Director Swatchh Bharat Mission- Urban vide letter No. 283/N. AA./2023-24 dated 18.08.2023 has approved the cost of Rs. 478/- per-tonne for the total 26900 Tonne quantifying the total cost to stand at Rs. 12,85,82,000/-.
16. That vide letter No. 585/Health/2023-24 dated 02.09.2023, the undersigned has directed M/s Rollz India Waste Management Pvt Ltd & Geron Engineering Pvt Ltd. to deposit FDR/ BG for Rs. 65,00,000/- in the name of Accounts Officer within 7 days from the date of the receipt of the letter and get the agreement executed after submitting the stamp-papers as per rules.

The true copy of the letter No. 585/Health/2023-24 dated 02.09.2023, thereby directing M/s Rollz India Waste Management Pvt Ltd & Geron Engineering Pvt Ltd. to deposit FDR/ BG for Rs. 65,00,000/- in the name of Accounts Officer is annexed herewith and marked as **ANNEXURE A-3 (Page 72 to 72).**

- 17.** That on 30.09.2023, contract has been entered into between M/s Rollz India Waste Management Pvt Ltd in JV Geron Engineering Pvt Ltd. and Ghaziabad Nagar Nigam, through the Nagar Swasthy Adhikaari. The true copy of the agreement dated 30.09.2023 entered into between M/s Rollz India Waste Management Pvt Ltd in JV Geron Engineering Pvt Ltd. and Ghaziabad Nagar Nigam is annexed herewith and marked as **ANNEXURE A-4 (Page 73 to 75)**.
- 18.** That regarding fire incident, it is submitted before this Hon'ble Tribunal that prior to this, no fire incident has taken place at any legacy waste site in Ghaziabad. This incident was first of its kind and was accidental in nature. So far Ghaziabad Nagar Nigam has processed 6.50 Lac Metric Tonnes of Legacy Waste in various sites and this fire was controlled and extinguished strictly in accordance with the guidelines of CPCB.
- 19.** That Cl. 4.4.3 titled Fire Control and Safety of the "Guidelines for Disposal of Legacy Waste (Old Municipal Solid Waste) Edn February, 2019 issued by CPCB provides as under: :
- "Most large dumpsites are smoldering from hidden fires. Methane itself is flammable with a blue flame, and supports the yellow-flame burning of combustible plastics,*

cloth and oily rags. Sometimes flammable industrial waste finds its way onto dumpsites, aggravating the problem.

It is difficult to begin bio-remediation work on a smoking dump. Sometimes digging into the dump awakens hidden fires. So fire control is important. Adding water increases the generation of both methane and leachate and is counter-productive, not a long-term solution. Adding soil cover to smother the flames adds more material to a heap that one is trying to bring down.

There is a better way, again requiring creative common-sense and experience and training of earth-mover drivers. Most fires within heaps have a point source – a bag of textile discards or plastic waste or a ball of oily rags. Earthmover drivers must learn to dig in and pluck out these burning balls of fire. These should be laid nearby on the surface of the dump and then rubbed out with the back of the excavator shovel to extinguish the flames and smoke. Wet soil should be kept handy to immediately plug the excavated hole. Adding composting bio-cultures can be tried, to counter the anaerobic conditions around the burning spots. Smoking points must be tackled patiently

and systematically, one by one, till the dump is smoke-free to begin stabilizing operations by bio-remediation.

It is important to do the risk assessment and an onsite emergency plan should be kept handy prior to commencement of dumpsite bio-remediation & bio-mining.”

The true copy of the “Guidelines for Disposal of Legacy Waste (Old Municipal Solid Waste) Edn February, 2019 issued by CPCB is annexed herewith and marked as **ANNEXURE A-5** **(Page 76 to 106)**.

- 20.** That the intensity of fire was such that entering into the heap was not possible without risk and therefore it was decided that water be sprinkled to first – bring down the temperature of the heap, make it wet so that the flammability of the flammable material could be reduced and then ultimately extinguish it completely.
- 21.** That fire in dump site is common because of Methane, which is highly flammable and can ignite for innumerable reasons.
- 22.** That for Leachate Management, Aeration of Waste is one of the established procedures as the guidelines issued by the Govt of U.P. Aeration introduces oxygen, preventing anaerobic conditions. This reduces methane generation, a potent

greenhouse gas, and minimizes the risk of spontaneous fires due to methane build-up.

The true copy of the guidelines issued by the Govt of U.P. for Leachate Management is annexed herewith and marked as **ANNEXURE A-6 (Page 107)**.

- 23.** That GNN, for aeration, has made groves in the legacy waste to prevent further methane build-up and to speed up its drying.
- 24.** That this year, due to very heavy unseasonal rains starting from March until onset of Monsoon, the treatment of Legacy waste has been hampered and the processing of MSW has been adversely affected. This is one of the reason why the duration of MSW treatment is not being increased from 8 hours, because the available MSW for processing exhausts in this duration. Notwithstanding the above, both M/s Geron Engineering Pvt Ltd and GNN are constantly keeping close eye on the climatic conditions and are determined to increase the processing capacity once the rainy season is over and the waste is ready for processing.
- 25.** That following are the future plans for the MSW Management as undergoing MSW projects:

A. Construction of 300 TPD Bio-CNG plant from Wet Waste. (PPP Model) in Village-Dundahera.

B. Proposed 1500-3000 TPD Waste-to-Energy Plant at Village- Galan (District- Hapur). However, due to public resistance, this project is delayed. Once it gets commenced, all MSW shall be processed at this place.

26. That nothing material is concealed herefrom.

Ghaziabad Nagar Nigam

Through Counsel

Date: 05.10.2023

Place: Ghaziabad



(VIBHAV MISHRA)

Advocate-on-Record

Ch No. 221, C.K. Daphtary Block,

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AFFIDAVIT

I, Dr. Mithilesh Kumar, S/o Shri Bhushan Singh aged about 42 Years presently working as Nagar Swasthya Adhikaari with the Ghaziabad Municipal Corporation, State of Uttar Pradesh do hereby solemnly affirm and declare as under;-

PRESENTLY AT DELHI

1. That I am the duly authorized officer of Ghaziabad Nagar Nigam in the above- noted petition and as such I am well conversant with the facts of this case and thus I am competent to swear this affidavit.
2. That the accompanying application may be read as part and parcel of this affidavit which are not repeated for the sake of brevity and has



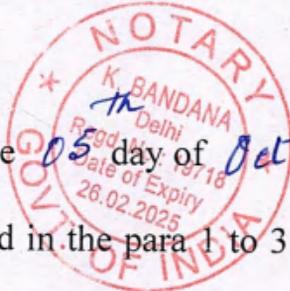
been drafted and filed by the empanelled counsel as per my instructions. I understood the contents of the above-mentioned application and the same are true and correct to the best of my knowledge as verifiable from the official records of the case.

- 3. That the annexures filed along with above-mentioned application are true and correct of their respective originals.

[Signature]
DEPONENT

VERIFICATION:

Verified at Ghaziabad on the *05th* day of *Oct*, 2023 that the contents of the above affidavit contained in the para 1 to 3 are true and correct to my knowledge derived out of records. No part of it is false and nothing material has been concealed therefrom.



[Signature]
DEPONENT

Identified by me
[Signature]
UP-7230-2016.

IDENTIFIED

ATTESTED
NOTARY PUBLIC DELHI
GOVT. OF INDIA
Mob.: 9654768498

5/10/2023





सत्यमेव जयते

ANNEXURE A-1

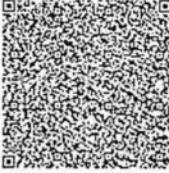
INDIA NON JUDICIAL

Government of Uttar Pradesh

निरंकार प्रसाद स्टाम्प विक्रेता
 लाईसेन्स नं०-542, ACC-UP14083004
 सिविल कोर्ट परिसर राजनगर गज़ियाबाद
 मोबाइल नं०-9999578472

e-Stamp

Certificate No. : IN-UP25995648386350U
 Certificate Issued Date : 24-Jun-2022 05:37 PM
 Account Reference : NEWIMPACC (SV)/ up14093904/ GHAZIABAD SADAR/ UP-GZB
 Unique Doc. Reference : SUBIN-UPUP1409390443779618147893U
 Purchased by : GERON ENGINEERING PVT LTD
 Description of Document : Article 5 Agreement or Memorandum of an agreement
 Property Description : Not Applicable
 Consideration Price (Rs.) :
 First Party : GERON ENGINEERING PVT LTD
 Second Party : Not Applicable
 Stamp Duty Paid By : GERON ENGINEERING PVT LTD
 Stamp Duty Amount(Rs.) : 100
 (One Hundred only)



Please write or type below this line
CONTRACT AGREEMENT

THIS AGREEMENT is made on 24th day of June 2022 between

Nagar Swasthya Adhikari, Nagar Nigam Ghaziabad, Uttar Pradesh having its registered office at Navyug Market, Ghaziabad, Uttar Pradesh (hereinafter "the Procuring Entity") which expression shall, where the context so admits, be deemed to include his successors in office and assigns, of the one part,

and

Geron Engineering Pvt. Ltd.(hereinafter "the Contractor"), having its registered office at Unit No 219, IInd Floor, Vipul Trade Centre, Sector 48, Sohna Road, Gurgaon, Haryana and its works at P4

Statutory Agent

1. The authenticity of the Stamp certificate should be verified at www.ehcldestamp.com or using e-Stamp Mobile App of State of India.
2. Any discrepancy in the details of this Certificate and as available on the website / Mobile App renders it invalid.
3. The onus of checking the legitimacy is on the users of the certificate.
3. In case of any discrepancy please inform the Competent Authority.

For Geron Engineering Pvt. Ltd.

[Signature]
 Authorised Signatory

BS Road, Industrial Area, Ghaziabad, UP 201009 which expressions shall, where the context so admits, be deemed to include his heirs, successors, executors and administrators, of the other part:

WHEREAS the *Procuring Entity* desires that the Works known as **Handling, Storage, Segregation, Processing and Scientific Disposal of Municipal Solid Waste (MSW)** received at site from the **Jurisdiction of Ghaziabad Nagar Nigam (GNN) of 1500 TPD capacity for a Period of 5 years** or till the commissioning of Waste to Energy Plant proposed at Galand or at any other place allotted by GNN.

The Procuring Entity and the Contractor agree as follows:

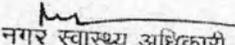
1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Contract documents referred to.
2. The following documents shall be deemed to form and be read and constructed as part of this Agreement.
 - a. The Letter of Award for Handling Processing and disposal of Municipal Solid Waste (MSW) received at site from the jurisdiction of Ghaziabad Nagar Nigam.
 - b. Tender inviting documents including Request for Proposal, Corrigendum if any etc.

3. Scope of work:

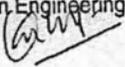
Handling, Storage, Segregation, Processing, and scientific Disposal of Municipal Solid Waste (MSW), comprising of Municipal Solid Waste as per Solid Waste Management Rules-2016 generated within area falling under the jurisdiction of Ghaziabad Nagar Nigam (GNN) having capacity of 1500 TPD for a period of 5 years or till the commissioning / commencement of start of operations of Waste to Energy Plant proposed at Galand or at any other place allotted by GNN.

In consideration of the payments to be made by the Procuring Entity to the Contractor, the contractor hereby covenants with the Procuring Entity to execute the Works mentioned below as per the provisions of the Contract.

1. Develop, Operate and maintain the required infrastructure for Handling, Storage, Segregation, Processing and Scientific Disposal of MSW as per SWM Rules 2016.
2. The implementation of Solid Waste Management Rules 2016 and other applicable laws within its territorial area.
3. GNN shall arrange to transport only the MSW waste till the identified processing site. The MSW waste should not contain C&D waste, drain silt waste, horticulture waste, biomedical waste, hazardous waste or any prohibited waste as per SWM Rules 2016. However, in case of any C&D Waste / Drain silt is found in the vehicles transporting the waste, it shall be stored separately by the Contractor and the same information will be shared with GNN and C&T Operator on the same day.
4. Providing adequate plant and machinery for processing / segregation of solid waste including mobile machinery of adequate capacity.
5. Setup the MRF facility for Segregation / processing of MSW into dry, wet and inert fractions by adopting appropriate technologies as per applicable law. The disposal of segregated fractions shall be done by the Contractor outside the MRF facility as per applicable law.
6. Identification & finalization of the land for setting up the MRF for unloading and


नगर स्वास्थ्य अधिकारी
नगर निगम गाजियाबाद

For Geron Engineering Pvt. Ltd.


Authorized Signatory

handling of the MSW and its segregation / processing shall be in scope of the Contractor. The land should have access road to the site. GNN shall endorse the land lease agreement between the private party and the Contractor. In case the payment for land shall be done by GNN, it shall be deducted from the Contractor's bill. In case land is provided by GNN, market rent of the land will be deducted by GNN from the Contractor's bill.

7. Setting up of at least one weighbridge at the site for regular measurement of incoming MSW and outgoing processed waste material.

8. Boundary wall/Temporary shed or any infrastructure as required by the Contractor for MSW handling and segregation shall be in scope of the Contractor.

9. Development, construction, and operation & maintenance of the MSW facility of minimum 500 TPD or higher MSW quantity as received from GNN. The MSW Quantity can be more than 1,000 TPD as well so the Contractor has to ensure adequate infrastructure to ensure entire MSW processing.

10. The Contractor shall provide a Digital Weighbridge along with CCTV camera that can be connected to the mobile application facilitated by GNN.

11. The MSW waste shall be stored for each day separately for 30-45 days. Post the decomposition of waste in 45 days, it shall be processed.

12. Unloading of waste shall be facilitated 24x7 for all days.

13. During the rainy days, MSW received at the plant shall be stored and can be processed by the Contractor post the rainy season is over. The Contractor shall ensure that any backlog MSW stored due to rainy season is cleared within 3-4 months post the rainy season.

14. The processed waste shall be sent for further disposal by the Contractor at its own cost.

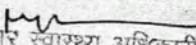
15. The RDF shall be sent either for co-processing or waste to energy plant for scientific disposal at the own cost of the Contractor.

16. The Contractor shall have no right to claim the EPR under this agreement as GNN has separate arrangement for the same.

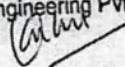
17. GNN shall not provide any electricity or facility for the processing plant. The entire responsibility for infrastructure development at the processing plant and its operation & management shall be of the Contractor.

18. Any MSW generated within the GNN jurisdiction area by other government or local bodies like GDA, Awas Vikas or any Bulk Waste Generator like Airport authority, railways, malls, societies etc. can be directly transported by the respective body to the MSW processing facility and the respective body shall directly pay the Contractor same price per ton as finalized under this contract.

19. Till the time, the Contractor identifies and makes the new processing site operational, it shall setup the mobile machinery at the current site of GNN and start processing the existing waste. The Contractor shall ensure processing of existing waste also at the same price per ton basis as finalized in this contract.


नगर स्वास्थ्य अधिकारी
नगर निगम गाजियाबाद

For Geron Engineering Pvt. Ltd.


Authorised Signatory

20. Supervision & Monitoring of Work by Zonal Sanitary Officer & Sanitary Inspector.

4. Payment Terms: -

- (1) The Contractor shall be paid a tipping fee of Rs 425 (Four Hundred and Twenty Five) per ton of MSW received at site for handling, storage, segregation, processing and scientific disposal of MSW at the MRF site on a fortnightly basis post submission of the bill.
- (2) The Contractor should provide Bank's name branch and account number, so that the payment will be made in contractor's account in their respective branch of the bank usually within 10 days of the receipt of the bill by GNN.
- (3) The Contractor shall be paid 70% payment of each bill on running account basis within 3 days of bill submission while balance 30% shall be paid post approval of the bill within 10 days of bill submission.
- (4) The bidder shall raise the bill only after the processing of MSW has been completed at site for the said bill period.
- (5) GNN shall facilitate to execute the land lease agreement directly with the landowner where project can be established. However, land lease rent shall be payable by the Contractor. In case GNN pays the land lease rent, it shall be deducted from the Contractor's bill.

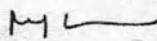
5. Penalty for Delay, Non-Compliance: -

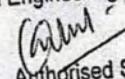
S No.	Penalty Description	Penalty Amount
1.	Non-Compliance to, SWM Rules 2016 and other Environmental Standards notified by regulatory authorities or as specified in the Contract.	Rs.1000/-per Incidence / per day

- 6. Permits and Clearances: -** Permits and clearance shall be obtained as per Applicable Law which includes but not limited to The Environment Protection Act 1986, The Air (Prevention and Control) Pollution Act 1981 and Water (Prevention and Control) Pollution Act 1974 as amended from time to time.

The projects relating to Municipal Solid Waste may require clearances and GNN shall responsibly assist the contractor in processing the clearance required for the project. As part of this tender, GNN has authorized the Contractor to operate the MSW facility as a MRF where the waste shall be segregated manually and mechanically into dry and wet fractions. The disposal of the dry waste shall be done by the Contractor at the waste to energy plant or pollution approved facility only.

The GNN together with Contractor shall be responsible for taking various statutory and non- statutory clearances for the Project from all concerned authorities. The GNN shall reasonably assist the Contractor in procuring the clearances required for the Project.


नगर स्वास्थ्य अधिकारी
नगर विमान कार्यालय

For Geron Engineering Pvt. Ltd.

Authorised Signatory

7. **Force Majeure:-** Any act of God, act of nature or the elements, terrorism, insurrection, revolution or civil strife, piracy, civil war, acts of public enemies, federal or state laws, rules and regulations of any governmental authorities having jurisdiction over the premises, Delays due to any of the above causes shall not be deemed to be a breach of or failure to perform under this Agreement.
8. **Termination Clause:-** In case the agreement is terminated before the expiry of 5 years or the commissioning of waste to energy plant at Galand or any other place allotted by GNN, the fair market value of the assets built or provided by the Contractor shall be determined by a third party valuer and the same shall be paid by GNN to the Contractor along with any outstanding dues within 30 days of the termination of the Contract.
9. **Taxes:-** The contractor shall only be responsible and liable to pay off any dues, stamp duty or any other tax obligations prescribed under the law.
10. **Dispute:-** In the event of any dispute arising between the parties here to, in respect of any of the matters comprised in this agreement the same shall be settled under the provisions of arbitration and conciliation Act 1996 and amended act 2019.

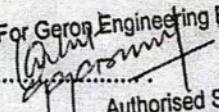
IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of India and Ghaziabad on the day, month and year indicated above.

Signed by 
 For and on behalf of the GNN / Procuring Entity

In the presence of

Witness, Name, Signature, Address,

Date: 24th June 2022

Signed by 
 For Geron Engineering Pvt. Ltd.
 Authorised Signatory
 For and on behalf the Contractor

In the presence of

Witness, Name, Signature, Address,

Regional Centre for Urban & Environmental Studies, Lucknow

(Ministry of Housing and Urban Affairs, Government of India)

क्षेत्रीय नगर एवं पर्यावरण अध्ययन केन्द्र, लखनऊ

(आवासन और शहरी कार्य मंत्रालय, भारत सरकार)

Er. A.K. Gupta
Additional Director

ई.ए. के. गुप्ता

अपर निदेशक

B.Tech (Civil), M.P. (Transport Planning)
PGCPM, FIE, FITE, FIWVA,
FINE, MUII

No : URC/ 1637 / 24/2022-23

Date: 29/ 11 /2022

सेवा में

नगर आयुक्त,
नगर निगम
गाजियाबाद।

विषय: नगर निगम गाजियाबाद में लीगेसी वेस्ट के निस्तारण हेतु डी0पी0आर0 का पुनरीक्षण कराये जाने के सम्बन्ध में।

महोदय,

कृपया उपरोक्त विषयक केन्द्र के पत्रांक - यूआरसी/1549/24/2022-23 दिनांक 16.11.2022 का सन्दर्भ ग्रहण करने का कष्ट करें। उक्त पत्र के माध्यम से नगर निगम गाजियाबाद में विद्यमान लीगेसी वेस्ट की क्वान्टिटी की गणना का परीक्षण करने हेतु अपनी टीम गाजियाबाद भेजने हेतु पत्र प्रेषित किया गया था साथ ही उपरोक्त कार्य हेतु ₹0 - 2,00,000/- की धनराशि उपलब्ध कराये जाने का अनुरोध किया गया था।

उक्त के क्रम में दिनांक 30.11.2022 को केन्द्र की ओर से श्री रामशंकर (मो0नं0 - 9696609507) एवं श्री हरेन्द्र द्वारा गाजियाबाद में लीगेसी वेस्ट की गणना का परीक्षण किया जाना प्रस्तावित है।

अतः आपसे अनुरोध है कि कृपया केन्द्र की टीम को आवश्यक सहयोग प्रदान करने का कष्ट करें।

SWM Clerk / CSR-1 / SF (Vasundhara) सादर।

रजिस्ट्रार का कार्यालय

भवदीय,

(ए0के0 गुप्ता)

प्रतिलिपि: राज्य मिशन निदेशक, स्वच्छ भारत मिशन (नगरीय), गोमतीनगर, लखनऊ।

1574
कागजात
2/12/22

NSA

NSA
व.कि. आ. 15/11/22

(ए0के0 गुप्ता)

शासन के पत्र संख्या-1201/नौ-5-2023-172सा/2019 दिनांक 27 फरवरी, 2023 द्वारा स्वच्छ भारत मिशन-नगरीय 1.0 के ठोस अपशिष्ट प्रबन्धन मद के अन्तर्गत अपर मुख्य सचिव/प्रमुख सचिव, नगर विकास विभाग, उत्तर प्रदेश शासन की अध्यक्षता में राज्य स्तरीय ठोस अपशिष्ट प्रबन्धन तकनीकी समिति की दशम बैठक दिनांक 28.02.2023 को सम्पन्न बैठक का कार्यवृत्त:-

उपस्थिति:-बैठक में उपस्थित अधिकारीगण का विवरण:-

1. श्री अमृत अगिजात, प्रमुख सचिव, नगर विकास विभाग, उ०प्र० शासन।
2. श्रीमती नेहा शर्मा, राज्य मिशन निदेशक, स्वच्छ भारत मिशन-नगरीय, उ०प्र०।
3. श्री अखिल सिंह, राहायक निदेशक (लेखा), नगरीय निकाय निदेशालय, उ०प्र०, लखनऊ।
4. श्री ए०के० गुप्ता, अपर निदेशक, आर०सी०यू०ई०एस०, लखनऊ।
5. श्री राजवीर सिंह, मुख्य अभियन्ता, नगर निकाय निदेशालय, उ०प्र०
6. श्री गुरु प्रसाद पाण्डेय, अपर मिशन निदेशक, स्वच्छ भारत मिशन-नगरीय, उ०प्र०।
7. डॉ० सुनील कुमार यादव, उप निदेशक, स्वच्छ भारत मिशन-नगरीय, उ०प्र०।
8. श्री कमल सिंह, महाप्रबन्धक, सी०एण्ड डी०एस०, उ०प्र० जल निगम, लखनऊ।
9. श्री विपिन पटेल, मण्डल कार्यक्रम प्रबन्धक, स्वच्छ भारत मिशन-नगरीय, उ०प्र०। (ऑनलाइन)
10. श्री अजीत सिंह, मण्डल कार्यक्रम प्रबन्धक, स्वच्छ भारत मिशन-नगरीय, उ०प्र०। (ऑनलाइन)

सर्वप्रथम राज्य मिशन निदेशक स्वच्छ भारत मिशन-नगरीय द्वारा समिति के समक्ष गत बैठक दिनांक 10.12.2022 में लिए गए निर्णयों के अनुपालन आख्या के विषयगत समिति को प्रगति से अवगत कराया गया।

1. 04 नगरीय निकायों यथा-नगर पालिका परिषद पं० दीन दयाल उपाध्याय नगर, मंझनपुर, बेल्हा प्रतापगढ़ व शिकोहाबाद में म्यूनिसिपल सॉलिड वेस्ट प्लान्ट के अधिष्ठापन हेतु कार्यदायी संस्था सी०एण्डडी०एस० द्वारा तैयार प्राक्कलन पर अनुमोदन का प्रस्ताव।

(धनराशि ₹० लाख में)

क्रमांक	जनपद	नगरीय निकाय का नाम	सी०एण्ड डी०एस० द्वारा गठित प्रारम्भिक आगणन की लागत (जी०एस०टी०, लेबरसेरा एवं सेन्टेज सहित)	आ०सी०यू०ई०एस०, लखनऊ द्वारा परीक्षणोपरान्त लागत (जी०एस०टी०, लेबरसेरा एवं सेन्टेज सहित)
1	बन्दौली	पं० दीनदयाल उपाध्याय (न०पा०परि०)	865.40	822.23
2	कौशान्दी	मंझनपुर (न०पा०परि०)	848.38	807.29
3	प्रतापगढ़	बेला प्रतापगढ़ (न०पा०परि०)	1029.07	828.67
4	फिरोजाबाद	शिकोहाबाद(न०पा०परि०)	1053.59	869.10
कुल योग			3796.44	3327.29

पूर्व में प्राप्त स्वीकृति उपरान्त उपरोक्त प्रस्तावों को राज्य स्तरीय उच्चाधिकार समिति के समक्ष प्रस्तुत किये जाने के निर्देश दिये गये व भूमि उपलब्धता के विषयगत मा० मुख्य सचिव महोदय के समक्ष जिलाधिकारियों से संवाद किये जाने के निर्देश प्रदान किये गये।

2. 6 नगरीय निकायों यथा-नगर निगम गाजियाबाद, अलीगढ़, अयोध्या व नगर पालिका परिषद दादरी, जौनपुर, सुलतानपुर में लिगेसी वेस्ट के निस्तारण के विषयगत प्रस्ताव।
लिगेसी वेस्ट के निस्तारण हेतु उपरोक्त निकायों द्वारा थर्ड पार्टी सर्वे के आधार पर डी०पी०आर० तैयार कर प्रेषित किया गया है। प्राप्त प्रस्तावों के पुनरीक्षण (Vetting) का कार्य रिसोर्स सेन्टर आर०सी०यू०ई०एस०, लखनऊ द्वारा किया गया है। प्राप्त डी०पी०आर० एवं वेटिंग उपरान्त अनुमानित लागत का विवरण निम्नवत् है:-

क्रमांक	निकाय का नाम	लिगेसी वेस्ट की मात्रा (टन में)	डी०पी०आर० की अनुमानित लागत धनराशि (₹० में)	आ०सी०यू०ई०एस० द्वारा वेटिंग उपरान्त लागत धनराशि (₹० में)
1	नगर निगम गाजियाबाद	272214	9,11,00,000.00	13,41,28,013.00
2	नगर निगम अलीगढ़	447912	20,48,55,186.00	20,48,55,186.00
3	नगर निगम अयोध्या	50015	2,29,54,804.44	2,68,83,755.00
4	नगर पालिका परिषद जौनपुर	74869	4,30,44,088.00	4,30,44,088.00
5	नगर पालिका परिषद सुलतानपुर	51237	2,68,68,025.00	2,68,68,444.00
6	नगर पालिका परिषद दादरी	20388	69,01,000.00	1,52,13,073.00
कुल योग		916635	39,57,23,103.44	45,09,92,559.00

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पूर्व में प्राप्ता स्वीकृति उपरान्त उपरोक्ता प्रस्तावों को राज्य स्तरीय उच्चाधिकार समिति के समक्ष प्रस्तुत किये जाने के निर्देश दिये गये एवं लिगेसी वेस्ट का आगणन सोटेलाइट इमेजनरी, कन्टूर राव एवं वेडिंग में से, जो भी कम हो, के माध्यम से सुनिश्चित किया जाय एवं आर०एफ०पी० में निहित रागी शर्तों का अनुपालन शत-प्रतिशत सुनिश्चित कराये जाने हेतु भी निर्देशित किया गया।

समिति द्वारा उक्त अनुपालन आख्या का राज्ञान लिया गया। तत्पश्चात् विन्दुवार प्राप्ता प्रस्तावों पर विचारोपरान्त निम्न निर्णय लिये गये।

एजेण्डा नोट-2

मुख्य सचिव, उ०प्र० की अध्यक्षता में गठित स्वच्छ भारत मिशन-नगरीय की राज्य स्तरीय उच्चाधिकार संचालन समिति की दिनांक 17.11.2021 को सम्पन्न 11वीं बैठक के एजेण्डा बिन्दु-3 के अन्तर्गत 9 नगर निगमों में से 03 नगर निगमों द्वारा निर्माण एवं विध्वंश अपशिष्ट के निस्तारण प्लान्ट निर्माण हेतु निविदा सम्पादित कराकर प्रेषित प्रस्ताव का अनुमोदन-

1. नगर निगम गोरखपुर में 50 टी०पी०डी० क्षमता का सी०एण्डडी० वेस्ट प्रोसेसिंग प्लान्ट की स्थापना कराये जाने का प्रस्ताव-

नगर आयुक्त, नगर निगम गोरखपुर के पत्र संख्या-624/मु०अभि०/चार-सा०नि०वि०/2022-23 दिनांक 16.12.2022 द्वारा 50 टी०पी०डी० क्षमता की सी०एण्डडी० वेस्ट प्रोसेसिंग प्लान्ट की स्थापना कराये जाने हेतु दिनांक 01.12.2022 को खोली गयी तकनीकी बिड में दो फर्मों यथा-M/s Logikoof Technologies Pvt Ltd एवं M/s Uddyam Cement Pvt Ltd को अर्ह पाया गया एवं दिनांक 13.12.2022 को वित्तीय बिड में निम्नवत् L-1 फर्म का चयन किया गया। विवरण निम्नवत् है:-

क्रमांक	कार्य का नाम	फर्म का नाम	प्राप्त दर (रुपय में)	बिड रैंक
1	C&D Waste Processing Plant	M/s Logikoof Technologies Pvt Ltd	2,59,68,000.00	L-1
2	C&D Waste Processing Plant	M/s Uddyam Cement Pvt Ltd	2,65,45,000.00	L-2

उपरोक्तानुसार वित्तीय बिड में फर्म M/s Logikoof Technologies Pvt Ltd की सर्वन्यून निविदा धनांक रु० 2,59,68,000.00 प्राप्त होने पर उक्त फर्म को L-1 पाया गया व उपरोक्त फर्म को कार्यदेश निर्गत किये जाने एवं धनराशि अवमुक्त किये जाने हेतु समिति के समक्ष प्रस्ताव विचारार्थ/अनुमोदनार्थ प्रस्तुत किया गया।

2. नगर निगम मुरादाबाद में 100 टी०पी०डी० क्षमता का सी०एण्डडी० वेस्ट प्रोसेसिंग प्लान्ट की स्थापना कराये जाने का प्रस्ताव-

नगर आयुक्त, नगर निगम मुरादाबाद के पत्र संख्या-197/स्वा०वि०/पर्या०अभि०/न०नि०मु०/2022-23 दिनांक 06.12.2022 द्वारा 100 टी०पी०डी० क्षमता की सी०एण्डडी० वेस्ट प्रोसेसिंग प्लान्ट की स्थापना कराये जाने हेतु दिनांक 17.11.2022 को खोली गयी वित्तीय बिड यथा-M/s Ecostan infra private limited एवं M/s Guru Ramdas construction को अर्ह पाया गया एवं वित्तीय बिड में निम्नवत् L-1 फर्म का चयन किया गया। विवरण निम्नवत् है:-

क्रमांक	कार्य का नाम	फर्म का नाम	प्राप्त दर (रुपय में)	बिड रैंक
1	C&D Waste Processing Plant	M/s Ecostan infra private limited	5,31,57,719.00	L-1

उपरोक्तानुसार वित्तीय बिड में M/s Ecostan infra private limited की सर्वन्यून निविदा धनांक रु० 5,31,57,719.00 प्राप्त होने पर उक्त फर्म को L-1 पाया गया व उपरोक्त फर्म को कार्यदेश निर्गत किये जाने एवं धनराशि अवमुक्त किये जाने हेतु समिति के समक्ष प्रस्ताव विचारार्थ/अनुमोदनार्थ प्रस्तुत किया गया है।

3. नगर निगम मथुरा-वृन्दावन में 50 टी०पी०डी० क्षमता का सी०एण्डडी० वेस्ट प्रोसेसिंग प्लान्ट की स्थापना कराये जाने का प्रस्ताव-

नगर आयुक्त, नगर निगम मथुरा-वृन्दावन के पत्र संख्या-903/एस०टी०/न०नि०म०वृ-मथुरा/2022-23 दिनांक 27.02.2023 द्वारा 50 टी०पी०डी० क्षमता का सी०एण्डडी० वेस्ट प्रोसेसिंग प्लान्ट की स्थापना कराये जाने हेतु दिनांक 12.09.2022 को खोली गयी तकनीकी बिड में 5 फर्म अर्ह पायी गयी। तदोपरान्त वित्तीय बिड में निम्नवत् L-1 फर्म का चयन किया गया। विवरण निम्नवत् है:-

क्रमांक	कार्य का नाम	फर्म का नाम	प्राप्त दर (रुपय में)	बिड रैंक
1	C&D Waste Processing Plant	M/s Jalota Bussiness support services LAP	2,44,11,111.00	L-1

उपरोक्तानुसार वित्तीय बिड में M/s Jalota Bussiness support services LAP की सर्वन्यून निविदा धनांक रु० 2,92,11,111.00 प्राप्त होने पर उक्त फर्म को L-1 पाया गया व उपरोक्त फर्म को कार्यदेश निर्गत किये जाने एवं धनराशि अवमुक्त किये जाने हेतु समिति के समक्ष प्रस्ताव विचारार्थ/अनुमोदनार्थ प्रस्तुत किया गया है।

मा० समिति द्वारा उक्त 03 नगर निगमों के संस्तुति सहित प्रस्तावों पर अनुमति प्रदान की गयी एवं धनराशि अवमुक्त किये जाने के निर्देश प्रदान किये गये।

महाकुम्भ मेला, प्रयागराज 2025 के आयोजन के सम्बन्ध में प्रस्तावित कार्यों के सैद्धान्तिक अनुमोदन एवं वित्तीय स्वीकृति स्वच्छ भारत मिशन-नगरीय से किये जाने का प्रस्ताव-

नगर आयुक्त, नगर निगम प्रयागराज के पत्र संख्या-1015/पर्या0/2022-23 दिनांक 27 फरवरी, 2023 द्वारा महाकुम्भ मेला, प्रयागराज 2025 के आयोजन के सम्बन्ध में 02 स्थायी कार्यों की स्वच्छ भारत मिशन-नगरीय से स्वीकृति प्रदान किये जाने हेतु औचित्यपूर्ण प्रस्ताव निम्नानुसार प्रस्तुत है:-

क्रमांक	परियोजना का विवरण	परियोजना लागत (रु0 लाख में)	औचित्य
1	बसवार प्लान्ट में 7600 वर्गमी0 मानसून शेड का निर्माण।	950.00	नगर निगम सीमान्तर्गत एकत्रित कूड़े के प्रोसेसिंग का कार्य बसवार स्थित सॉलिड वेस्ट प्रोसेसिंग का कार्य किया जाता है। वर्तमान में प्लान्ट की प्रोसेसिंग क्षमता 400 टी0पी0डी0 है तथा निगम सीमान्तर्गत एकत्रित सॉलिड वेस्ट को रखने एवं बायोक्वैरिंग हेतु वर्तमान में 2400 वर्गमी0 क्षमता का मानसून शेड बना हुआ है। नगर निगम सीमा विस्तार होने के कारण वर्तमान में 550 से 650 मी0टन सॉलिड वेस्ट बसवार प्लान्ट पर प्रोसेसिंग हेतु जा रहा है, इसके अतिरिक्त आगामी महाकुम्भ 2025 के दृष्टिगत लगभग 20 करोड़ से अधिक श्रद्धालुओं के आगमन की सम्भावना है। उपरोक्त के दृष्टिगत एवं वर्षा के समय पर्याप्त मानसून शेड न होने के कारण प्रोसेसिंग का कार्य प्रभावित होता है एवं प्रोसेसिंग कार्य में लगी हुए एजेन्सी को भी असुविधा होती है तथा नगर निगम सीमान्तर्गत एकत्रित सॉलिड वेस्ट के निस्तारण में अधिक समय लग जाता है। प्रोसेसिंग के उपरान्त उससे निकलने वाले आर्गेनिक मटेरियल से कम्पोस्ट रखने के लिए भी शेड की आवश्यकता है। उपरोक्त के दृष्टिगत एवं CPHEEO की गाइड लाइन के अनुसार वर्तमान में प्लान्ट पर एकत्रित सॉलिड वेस्ट के सापेक्ष कुल 10000 वर्गमी0 क्षमता के मानसून शेड की आवश्यकता है। अतः 7600 वर्गमी0 क्षमता के अतिरिक्त मानसून शेड की आवश्यकता है।
2	बसवार प्लान्ट में 19000 वर्गमी0 विन्ड्रो पैड की स्थापना।	1046.00	नगर निगम सीमान्तर्गत एकत्रित कूड़े के प्रोसेसिंग का कार्य बसवार स्थित सॉलिड वेस्ट प्लान्ट में किया जाता है। वर्तमान में प्लान्ट की प्रोसेसिंग क्षमता 400 टी0पी0डी0 है तथा निगम सीमान्तर्गत एकत्रित सॉलिड वेस्ट को रखने एवं बायोक्वैरिंग हेतु 14000 वर्गमी0 क्षमता का विन्ड्रो पैड बना हुआ है। नगर निगम सीमा विस्तार होने के कारण वर्तमान में 550 से 650 मी0टन सॉलिड वेस्ट बसवार प्लान्ट पर प्रोसेसिंग हेतु जा रहा है। उपरोक्त के दृष्टिगत एवं CPHEEO की गाइड लाइन के अनुसार वर्तमान में प्लान्ट पर एकत्रित सॉलिड वेस्ट के सापेक्ष कुल 33000 वर्गमी0 क्षमता के विन्ड्रो पैड की आवश्यकता है। अतः 19000 वर्गमी0 क्षमता के अतिरिक्त विन्ड्रो पैड की आवश्यकता है।
कुल योग		1996.00	

उक्त के अतिरिक्त महाकुम्भ मेला, प्रयागराज 2025 के आयोजन के सम्बन्ध में मा0 मुख्य सचिव, उ0प्र0 शासन की अध्यक्षता में सम्पन्न हुई बैठक में निर्देशित किया गया है कि उपरोक्त कार्य, जिनका वित्त पोषण स्वच्छ भारत मिशन-नगरीय, से हो सकता है उसके लिए प्रयास किया जाये, और जिन कार्यों का वित्त पोषण स्वच्छ भारत मिशन-नगरीय से नहीं हो सकता है उनका वित्त पोषण महाकुम्भ बजट से किया जाये।

उपरोक्त के दृष्टिगत 02 कार्यों यथा-7600 वर्गमी0 मानसून शेड का निर्माण एवं 19000 वर्गमी0 विन्ड्रो पैड की स्थापना किये जाने हेतु कुल लागत धनराशि रु0 1996.00 लाख (रु0 उन्नीस करोड़ छियाब्बे लाख मात्र) की वित्तीय स्वीकृति स्वच्छ भारत मिशन-नगरीय के सॉलिड वेस्ट मैनेजमेन्ट मद से प्राप्त किये जाने एवं धनराशि अवमुक्त किये जाने का प्रस्ताव मा0 समिति के समक्ष विचारार्थ/अनुमोदनार्थ प्रस्तुत है।

उक्त प्रस्ताव पर मा0 समिति द्वारा अनुमति प्रदान की गयी एवं वित्तीय स्वीकृति प्रदान करते हुए मांग की गयी धनराशि निर्गत किये जाने के निर्देश दिये गये।

एजेन्डा नोट-4

नगर पालिका परिषद ठाकुरद्वारा में लिगेसी वेस्ट के निस्तारण के विषयगत प्रस्ताव।

लिगेसी वेस्ट के निस्तारण हेतु उपरोक्त निकाय द्वारा आर0सी0यू0ई0एस0 द्वारा डी0पी0आर0 तैयार करने एवं पुनरीक्षण (Vetting) का कार्य किया गया है। प्राप्त डी0पी0आर0 एवं वेटिंग रिपोर्ट की अनुमानित लागत का विवरण निम्नवत् है:-

क्रमांक	निकाय का नाम	लिगेसी वेस्ट की मात्रा (टन में)	डी0पी0आर0 की अनुमानित लागत धनराशि (रु0 में)	आर0सी0यू0ई0एस0 द्वारा वेटिंग उपरान्त लागत धनराशि (रु0 में)
1	नगर पालिका परिषद ठाकुरद्वारा	14384	9400353.00	9400353.00
कुल योग		14384	9400353.00	94,00,353.00

उपरोक्तानुसार नगर पालिका परिषद ठाकुरद्वारा द्वारा लिगेसी वेस्ट के निस्तारण कार्य का प्रस्ताव मा0 समिति के रक्षीय विचारार्थ/अनुमोदनार्थ प्रस्तुत किया गया है।

उक्त प्रस्ताव पर मा0 समिति द्वारा स्वीकृति प्रदान की गयी एवं अग्रेतर प्रस्ताव को मा0 मुख्य सचिव महोदय की अध्यक्षता में गठित राज्य स्तरीय उच्चाधिकार समिति के समक्ष प्रस्तुत किये जाने के निर्देश प्रदान किये गये।

एजेण्डा नोट-5

डोर-टू-डोर कूड़ा कलेक्शन एवं कूड़े के पृथक्कीकरण हेतु अतिरिक्त संसाधन व उपकरण क्रय किये जाने का प्रस्ताव-

नगर आयुक्त, नगर निगम कानपुर के पत्र संख्या-1282/3/प दिनांक 21.02.2023 द्वारा स्वच्छ सर्वेक्षण 2023 में डोर-टू-डोर कूड़ा कलेक्शन एवं कूड़े के पृथक्कीकरण हेतु वर्तमान में सीमित संसाधन उपलब्ध होने के कारण अतिरिक्त उपकरणों/मशीनों के क्रय किये जाने का प्रस्ताव प्रेषित किया गया है। विवरण निम्नवत् है:-

तालिका क

क्र0सं0	सामग्री का विवरण	वर्तमान में उपलब्ध संसाधनों की कुल क्षमता/संख्या	प्रस्तावित संसाधनों की कुल क्षमता/संख्या	अनुमानित व्यय (रू0 करोड़ में)	अनुमानित लागत का आधार
1	हॉपर ट्रीपर (3 QMT साइज लगभग 3000 ली0 भार क्षमता एवं 04 कम्पार्टमेन्ट के साथ)	400	100	08.89	GcM Portal
2	डी0सी0एम0 06.0 क्यू0मी0 क्षमता	10	06	1.42	GcM Portal
3	बाबकट	4	06	1.74	GcM Portal
4	कैटल कैंपिंग वाहन	6	06	1.08	GcM Portal
5	रिक्शा ट्रॉली	300	1800	4.95	पूर्व निविदा आधार पर
6	हाथ कूड़ा गाड़ी	1000	3000	2.70	पूर्व निविदा आधार पर
7	डम्पर प्लेसर 1.5 क्यू0मी0 क्षमता	12	06	0.87	GeM Portal
8	डम्पर प्लेसर 4.5 क्यू0मी0 क्षमता	18	06	1.52	GeM Portal
9	डम्पर प्लेसर 8.0 क्यू0मी0 क्षमता	8	04	1.13	GeM Portal
10	डम्पर प्लेसर कन्टेनर 1.4 क्यू0मी0 क्षमता	61	180	0.34	पूर्व निविदा आधार पर
11	डम्पर प्लेसर कन्टेनर 4.5 क्यू0मी0 क्षमता	134	100	0.88	पूर्व निविदा आधार पर
12	डम्पर प्लेसर कन्टेनर 8.0 क्यू0मी0 क्षमता	74	60	1.14	पूर्व निविदा आधार पर
13	फॉगिंग मशीन छोटी	87	60	0.48	Gem Portal
14	फॉगिंग मशीन बड़ी	23	06	0.56	GeM Portal
15	मोबाइल टॉयलेट 04 सीटर	2	12	0.44	GeM Portal
16	मोबाइल टॉयलेट 06 सीटर	10	12	0.52	GeM Portal
17	मोबाइल टॉयलेट 10 सीटर	3	06	0.42	GeM Portal
18	अन्य सफाई उपकरण	-	-	2.00	जेम पोर्टल/पूर्व निविदा आधार पर
कुल योग (धनराशि करोड़ में)				31.08	

अवगत कराना है कि नगर निगम कानपुर द्वारा शत-प्रतिशत डोर-टू-डोर कूड़े के कलेक्शन एवं पृथक्कीकरण हेतु आवश्यक उपकरण एवं मशीनों के क्रय के लिए धनराशि रू0 31.08 करोड़ स्वच्छ भारत मिशन-नगरीय के टोस अपशिष्ट प्रबन्धन मद से अवमुक्त किये जाने हेतु अनुरोध किया गया है।

उक्त प्रस्ताव का प्रतिपरीक्षण, जेम पर उपलब्ध दरों के सापेक्ष किया गया। प्रस्ताव निम्नवत् है:-

तालिका ख

क्र0सं0	सामग्री का विवरण	वर्तमान में उपलब्ध संसाधनों की कुल क्षमता/संख्या	प्रस्तावित संसाधनों की कुल क्षमता/संख्या	अनुमानित व्यय (रू0 करोड़ में)	अनुमानित लागत का आधार
1	हॉपर ट्रीपर (3 QMT साइज लगभग 3000 ली0 भार क्षमता एवं 04 कम्पार्टमेन्ट के साथ)	400	100	08.89	GcM Portal
2	डी0सी0एम0 06.0 क्यू0मी0 क्षमता	10	06	1.42	GeM Portal

3	बाबकट	4	06	1.74	GeM Portal
4	कैटल कैबिंग वाहन	28	06	1.08	GeM Portal
5	रिक्शा ट्रॉली	300	1800	4.95	पूर्व निविदा आधार पर
6	हाथ कूड़ा गाड़ी	1000	3000	2.70	पूर्व निविदा आधार पर
7	डम्पर प्लेसर 1.5 क्यूमी० क्षमता	12	06	0.87	GeM Portal
8	डम्पर प्लेसर 4.5 क्यूमी० क्षमता	18	06	1.52	GeM Portal
9	डम्पर प्लेसर 8.0 क्यूमी० क्षमता	8	04	1.13	GeM Portal
10	डम्पर प्लेसर कन्टेनर 1.4 क्यूमी० क्षमता	61	180	0.34	पूर्व निविदा आधार पर
11	डम्पर प्लेसर कन्टेनर 4.5 क्यूमी० क्षमता	134	100	0.88	पूर्व निविदा आधार पर
12	डम्पर प्लेसर कन्टेनर 8.0 क्यूमी० क्षमता	74	60	1.14	पूर्व निविदा आधार पर
13	अन्य सफाई उपकरण	-	-	2.00	जेम पोर्टल/पूर्व निविदा आधार पर
कुल योग (घनराशि करोड़ में)				28.66	

तदनुसार स्वच्छ भारत मिशन-नगरीय से आच्छादित सामग्रियों एवं उपकरणों के क्रय हेतु तालिका क को संशोधित करते हुए तालिका ख के अनुरूप घनावंटन का प्रस्ताव गा० समिति के समक्ष विचारार्थ/अनुमोदनार्थ प्रस्तुत किया गया।

गा० समिति द्वारा नगर निगम कानपुर द्वारा प्रेषित प्रस्ताव को तालिका ख के अनुरूप स्वीकृति प्रदान करते हुए घनराशि रू० 28.66 करोड़ अवमुक्त किये जाने एवं समस्त क्रयदारी जेम पोर्टल पर उपलब्ध न्यूनतम दरों के आधार पर किये जाने हेतु निर्देशित किया गया। जेम पोर्टल से उक्तावत् सामग्री क्रय किये जाने हेतु शासन के कार्यालय ज्ञाप संख्या-10084/नौ-5-2021-172सा/2019, दिनांक 25.08.2021 द्वारा गठित क्रय समिति के अनुमोदन उपरांत क्रय प्रक्रिया सुनिश्चित की जाएगी।

एजेंडा नोट-6

निकायों में कलेक्शन एवं ट्रांसपोर्टेशन हेतु आवश्यक वाहन एवं उपकरणों की आपूर्ति-

- स्वच्छ भारत मिशन नगरीय के अन्तर्गत टोस अपशिष्ट प्रबंधन गद से निकायों में कूड़े के कलेक्शन एवं ट्रांसपोर्टेशन हेतु आवश्यक मशीनों एवं उपकरणों की व्यवस्था सुनिश्चित किये जाने हेतु सी०पी०एच०ई०ई०ओ० मैनुअल में विर्णित दिशा-निर्देशों (1 ट्राइसाइकिल प्रति 200 परिवार, 1 मिनी टिपर प्रति 1000 परिवार, 1 व्हील बैरो प्रति 200 परिवार) के क्रम में आंकलन करते हुए कलेक्शन एवं ट्रांसपोर्टेशन हेतु साइकिल रिक्शा विद बिनस/ई-रिक्शा/मिनी टिपर/टिपर ट्रक/डम्पर प्लेसर/काम्पेक्टर/हुक लोडर/हाइवा/ट्रैक्टर/ट्रॉली/ हैडकार्ट/व्हीलबैरों/कम्युनिटी बिन/टिविन बिन डस्टबिन एवं पी०पी०ई० किट इत्यादि हेतु वित्त पोषित किया गया है।
- निकायों में आवश्यक वाहनों एवं उपकरणों का आंकलन सेन्सस 2011 के अनुसार किया गया है। साथ ही निकाय की बढ़ती जनसंख्या, फ्लोटिंग जनसंख्या इत्यादि तथ्यों को ध्यान में रखते हुए घनावंटन किया गया है साथ ही निकायों से अपेक्षा की गयी थी कि निकाय में उपलब्ध वर्तमान संसाधनों एवं आवश्यकतानुसार नियत प्रारूप-1, 2 व 3 पर प्रस्ताव प्रेषित करेंगे तथा स्वच्छ भारत मिशन निदेशालय से स्वीकृति उपरांत निकाय टोस अपशिष्ट प्रबंधन गद के अन्तर्गत मिशन निदेशालय से अवमुक्त की गयी घनराशि से संसाधन क्रय के संबंध में शासन के कार्यालय ज्ञाप संख्या-10084/नौ-5-2021-172सा/2019,0 दिनांक 25.08.2021 द्वारा गठित क्रय समिति के अनुमोदन उपरांत क्रय प्रक्रिया सुनिश्चित की जाएगी।

उपरोक्त के क्रम में निकायों से प्राप्त प्रस्ताव निम्नवत् है:-

- 1- नगर पालिका परिषद बांदा, जनपद-बांदा :-अधिशासी अधिकारी, नगर पालिका परिषद बांदा के पत्र संख्या-1217/एस०बी०एग०/न०पा०परि०बांदा/2022-23, दिनांक 22.09.2022 द्वारा निम्नलिखित प्रस्ताव प्रेषित किया गया है:-

तालिका क

क्र०सं०	क्रय हेतु प्रस्तावित वाहन/उपकरण का नाम	संख्या	दर (प्रति अदद लाख में)	घनराशि (रू० लाख में)
1	टिपर वाहन	7	8.50	59.50
2	पी०पी०ई० किट	500	0.01935	9.6750
3	ट्राइसाइकिल विद ट्विन बिन	10	0.25	2.50
4	ई-रिक्शा	2	1.35	2.70
5	व्हील बैरो	40	0.09	3.60
कुल योग				77.9750

(93)

अवगत कराना है कि नगर पालिका परिषद बांदा को राज्य मिशन निदेशालय के पत्र संख्या- पी0एम0यू0/149/427 (6) एस0डब्लू0एम0/2019, दिनांक 11.11.2021 द्वारा निकाय के सीमा क्षेत्र में शत प्रतिशत डोर-टू-डोर कूड़ा कलेक्शन एवं ट्रांसपोर्टेशन हेतु ठोस अपशिष्ट प्रबंधन मद से धनराशि रु0 77.2140 लाख अवमुक्त की गयी है। तदनुसार अधिशासी अधिकारी, नगर पालिका परिषद बांदा द्वारा प्रेषित प्रस्ताव में उपलब्ध धनराशि के सापेक्ष अनुमति हेतु अनुरोध किया गया है।

उक्त प्रस्ताव का प्रतिपरीक्षण, जेम पर उपलब्ध दरों के सापेक्ष किया गया। प्रस्ताव निम्नवत् है:-

क्र0सं0	क्रय हेतु प्रस्तावित वाहन/उपकरण का नाम	संख्या	दर (प्रति अदद लाख में)	धनराशि (रु0 लाख में)
1	टिपर वाहन	7.0000	8.0000	56.0000
2	पी0पी0ई0 किट	500.0000	0.0194	9.6750
3	ड्राईसाइकिल विद टविन बिन	10.0000	0.2500	2.5000
4	ई-रिक्शा	2.0000	1.3500	2.7000
5	व्हील बैरो	40.0000	0.0800	3.2000
	कुल योग			74.0750

उपरोक्त के क्रम में समिति द्वारा नगर पालिका परिषद बांदा के प्रस्ताव तालिका क में संशोधन कर तालिका ख के अनुरूप अनुमति प्रदान की गयी व 5 वर्षों तक मशीनों एवं उपकरणों का रख-रखाव निकाय द्वारा स्वयं किये जाने के निर्देश प्रदान किये गये।

जेम पोर्टल से उक्तवत् सामग्री क्रय किये जाने हेतु शासन के कार्यालय ज्ञाप संख्या-10084/नौ-5-2021-172सा/2019, दिनांक 25.08.2021 द्वारा गठित क्रय समिति के अनुमोदन उपरांत क्रय प्रक्रिया सुनिश्चित की जाएगी।

2- नगर पालिका परिषद मैनपुरी, जनपद-मैनपुरी :-अधिशासी अधिकारी, नगर पालिका परिषद मैनपुरी के पत्र संख्या-2335/2022, दिनांक 19.10.2022 द्वारा निम्नलिखित प्रस्ताव प्रेषित किया गया है:-

तालिका क

क्र0सं0	क्रय हेतु प्रस्तावित वाहन/उपकरण का नाम	संख्या	दर (प्रति अदद लाख में)	धनराशि (रु0 लाख में)
1	मिनी टिपर विद टविन बिन	2	7.00	14.00
2	डम्पर प्लेसर बिन 1000 लीटर	12	0.27	3.24
3	पी0पी0ई0किट	469	0.02	9.38
4	ट्रैक्टर आयशर	1	5.60	5.60
5	ट्रैक्टर ट्रॉली	3	3.50	10.50
6	व्हील बैरो/हैण्डकार्ट	316	0.08	25.28
	कुल योग			68.00

अवगत कराना है कि नगर पालिका परिषद मैनपुरी को राज्य मिशन निदेशालय के पत्र संख्या- पी0एम0यू0/149/427 (10) एस0डब्लू0एम0/2019, दिनांक 11.11.2021 द्वारा निकाय के सीमा क्षेत्र में शत प्रतिशत डोर-टू-डोर कूड़ा कलेक्शन एवं ट्रांसपोर्टेशन हेतु ठोस अपशिष्ट प्रबंधन मद से धनराशि रु0 68.00 लाख अवमुक्त की गयी है। तदनुसार अधिशासी अधिकारी, नगर पालिका परिषद मैनपुरी द्वारा प्रेषित प्रस्ताव में उपलब्ध धनराशि के सापेक्ष अनुमति हेतु अनुरोध किया गया है।

उक्त प्रस्ताव का प्रतिपरीक्षण, जेम पर उपलब्ध दरों के सापेक्ष किया गया। प्रस्ताव निम्नवत् है:-

तालिका ख

क्र0सं0	क्रय हेतु प्रस्तावित वाहन/उपकरण का नाम	संख्या	दर (प्रति अदद लाख में)	धनराशि (रु0 लाख में)
1	मिनी टिपर विद टविन बिन	2	7.00	14.00
2	डम्पर प्लेसर बिन 1000 लीटर	12	0.27	3.24
3	पी0पी0ई0किट	469	0.02	9.38
4	ट्रैक्टर आयशर	1	5.60	5.60
5	ट्रैक्टर ट्रॉली	3	3.50	10.50
6	व्हील बैरो/हैण्डकार्ट	316	0.08	25.28
	कुल योग			68.00

उपरोक्त के क्रम में समिति द्वारा नगर पालिका परिषद मैनपुरी के प्रस्ताव तालिका क में संशोधन कर तालिका ख के अनुरूप अनुमति प्रदान की गयी व 5 वर्षों तक मशीनों एवं उपकरणों का रख-रखाव निकाय द्वारा स्वयं किये जाने के निर्देश प्रदान किये गये।

जम पोर्टल से उक्तावत् सामग्री क्रय कि (92) (जो) हेतु शारान के कार्यालय ज्ञाप संख्या-10084/नौ-5-2021-172सा/2019, दिनांक 25.08.2021 द्वारा गठित क्रय समिति के अनुमोदन उपरांत क्रय प्रक्रिया सुनिश्चित की जाएगी।

3- नगर पालिका परिषद बिजनौर जनपद-बिजनौर :-अधिशारी अधिकारी, नगर पालिका परिषद बिजनौर के पत्र संख्या-179/1/न0पा0परि0 बि0/2022, दिनांक 05.11.2022 द्वारा निम्नलिखित प्रस्ताव प्रेषित किया गया है:-

तालिका क

क्र0सं0	क्रय हेतु प्रस्तावित वाहन/उपकरण का नाम	संख्या	दर (प्रति अदद लाख में)	घनराशि (रू0 लाख में)
1	Truck Mounted Garbage Compactor of 18 Cu.M	1	85.00	85.00
कुल योग				85.00

अवगत कराना है कि नगर पालिका परिषद बिजनौर को राज्य मिशन निदेशालय के पत्र संख्या- पी0एम0यू0/149/427 (10) एस0डब्लू0एम0/2019, दिनांक 11.11.2021 द्वारा निकाय के सीमा क्षेत्र में शत प्रतिशत डोर-टू-डोर कूड़ा कलेक्शन एवं ट्रांसपोर्टेशन हेतु ठोस अपशिष्ट प्रबंधन मद से घनराशि रू0 46.4960 लाख अवमुक्त की गयी है। तदनुसार अधिशारी अधिकारी, नगर पालिका परिषद बिजनौर द्वारा प्रेषित प्रस्ताव में उपलब्ध घनराशि के सापेक्ष अनुमति हेतु अनुरोध किया गया है।

उक्त प्रस्ताव का प्रतिपरीक्षण, जेम पर उपलब्ध दरों के सापेक्ष किया गया। प्रस्ताव निम्नवत् है:-

तालिका ख

क्र0सं0	क्रय हेतु प्रस्तावित वाहन/उपकरण का नाम	संख्या	दर (प्रति अदद लाख में)	घनराशि (रू0 लाख में)
1	Truck Mounted Garbage Compactor of 18 Cu.M	1	85.00	85.00
कुल योग				85.00

उपरोक्त के क्रम में समिति द्वारा नगर पालिका परिषद बिजनौर के प्रस्ताव तालिका ख के अनुरूप अनुमति प्रदान की गयी व 5 वर्षों तक मशीनों एवं उपकरणों का रख-रखाव निकाय द्वारा स्वयं किये जाने के निर्देश प्रदान किये गये व निकाय द्वारा अवमुक्त घनराशि से अधिक का व्यय स्वयं के निधि से वहन किया जायेगा।

जम पोर्टल से उक्तावत् सामग्री क्रय किये जाने हेतु शारान के कार्यालय ज्ञाप संख्या-10084/नौ-5-2021-172सा/2019, दिनांक 25.08.2021 द्वारा गठित क्रय समिति के अनुमोदन उपरांत क्रय प्रक्रिया सुनिश्चित की जाएगी।

4- नगर पालिका परिषद ललितपुर जनपद-ललितपुर :-अधिशारी अधिकारी, नगर पालिका परिषद ललितपुर के पत्र संख्या-1610/स्वा0वि0/एव0बी0एम0/2022-23, दिनांक 27.02.2023 द्वारा निम्नलिखित प्रस्ताव प्रेषित किया गया है:-

तालिका क

क्र0सं0	क्रय हेतु प्रस्तावित वाहन/उपकरण का नाम	संख्या	दर (प्रति अदद लाख में)	घनराशि (रू0 लाख में)
1	E-Rickshaw (For D2D Narrow Road)	8	3.50	28.00
2	Closed Top Tipper (C&D waste)	1	26.00	26.00
3	Community Composter	26	0.53	13.78
कुल योग				67.78

अवगत कराना है कि नगर पालिका परिषद ललितपुर को राज्य मिशन निदेशालय के पत्र संख्या- पी0एम0यू0/149/427 (10) एस0डब्लू0एम0/2019, दिनांक 11.11.2021 द्वारा निकाय के सीमा क्षेत्र में शत प्रतिशत डोर-टू-डोर कूड़ा कलेक्शन एवं ट्रांसपोर्टेशन हेतु ठोस अपशिष्ट प्रबंधन मद से घनराशि रू0 66.5205 लाख अवमुक्त की गयी है। तदनुसार अधिशारी अधिकारी, नगर पालिका परिषद ललितपुर द्वारा प्रेषित प्रस्ताव में उपलब्ध घनराशि के सापेक्ष अनुमति हेतु अनुरोध किया गया है।

उक्त प्रस्ताव का प्रतिपरीक्षण, जेम पर उपलब्ध दरों के सापेक्ष किया गया। प्रस्ताव निम्नवत् है:-

तालिका ख

क्र0सं0	क्रय हेतु प्रस्तावित वाहन/उपकरण का नाम	संख्या	दर (प्रति अदद लाख में)	घनराशि (रू0 लाख में)
1	E-Rickshaw (For D2D Narrow Road)	8	3.50	28.00
2	Closed Top Tipper (C&D waste)	1	26.00	26.00
कुल योग				54.00

(191)

उपरोक्त के क्रम में समिति द्वारा नगर पालिका परिषद ललितपुर के प्रस्ताव तालिका क में संशोधन तालिका ख के अनुरूप अनुमति प्रदान की गयी व 5 वर्षों तक मशीनों एवं उपकरणों का रख-रखाव निकाय द्वारा स्वयं किये जाने के निर्देश प्रदान किये गये।

जेम पोर्टल से उक्तवत् सामग्री क्रय किये जाने हेतु शासन के कार्यालय ज्ञाप संख्या-10084/नौ-5-2021-172सा/2019, दिनांक 25.08.2021 द्वारा गठित क्रय समिति के अनुमोदन उपरांत क्रय प्रक्रिया सुनिश्चित की जाएगी।

5- नगर पंचायत बबेरु जनपद-बांदा :-अधिशाली अधिकारी, नगर पंचायत बबेरु के पत्र संख्या-639/न0प0बबेरु/2022-23, दिनांक 10.11.2022 द्वारा निम्नलिखित प्रस्ताव प्रेषित किया गया है:-

तालिका क

क्र0सं0	क्रय हेतु प्रस्तावित वाहन/उपकरण का नाम	संख्या	दर (प्रति अदद लाख में)	धनराशि (रु0 लाख में)
1	Mini Tripper (With Blue and Green Compartment for Door to Door collection and transportation purpose)	1	7.5780	7.5780
कुल योग				7.5780

अवगत कराना है कि नगर पंचायत बबेरु को राज्य मिशन निदेशालय के पत्र संख्या- पी0एम0यू0/149/427 (10) एस0डब्लू0एम0/2019, दिनांक 11.11.2021 द्वारा निकाय के सीमा क्षेत्र में शत प्रतिशत डोर-टू-डोर कूड़ा कलेक्शन एवं ट्रांसपोर्टेशन हेतु टोस अपशिष्ट प्रबंधन मद से धनराशि रु0 7.5780 लाख अवमुक्त की गयी है। तदनुसार अधिशाली अधिकारी, नगर पंचायत बबेरु द्वारा प्रेषित प्रस्ताव में उपलब्ध धनराशि के सापेक्ष अनुमति हेतु अनुरोध किया गया है।

उक्त प्रस्ताव का प्रतिपरीक्षण, जेम पर उपलब्ध दरों के सापेक्ष किया गया। प्रस्ताव निम्नवत् है:-

तालिका ख

क्र0सं0	क्रय हेतु प्रस्तावित वाहन/उपकरण का नाम	संख्या	दर (प्रति अदद लाख में)	धनराशि (रु0 लाख में)
1	Mini Tripper (With Blue and Green Compartment for Door to Door collection and transportation purpose)	1	7.5780	7.5780
कुल योग				7.5780

उपरोक्त के क्रम में समिति द्वारा नगर पंचायत बबेरु के प्रस्ताव तालिका ख के अनुरूप अनुमति प्रदान की गयी व 5 वर्षों तक मशीनों एवं उपकरणों का रख-रखाव निकाय द्वारा स्वयं किये जाने के निर्देश प्रदान किये गये।

जेम पोर्टल से उक्तवत् सामग्री क्रय किये जाने हेतु शासन के कार्यालय ज्ञाप संख्या-10084/नौ-5-2021-172सा/2019, दिनांक 25.08.2021 द्वारा गठित क्रय समिति के अनुमोदन उपरांत क्रय प्रक्रिया सुनिश्चित की जाएगी।

6- नगर पंचायत तिन्दवारी जनपद-बांदा :-अधिशाली अधिकारी, नगर पंचायत तिन्दवारी के पत्र संख्या-565/न0प0तिन्दवारी/2022-23, दिनांक 21 सितम्बर, 2022 द्वारा निम्नलिखित प्रस्ताव प्रेषित किया गया है:-

तालिका क

क्र0सं0	क्रय हेतु प्रस्तावित वाहन/उपकरण का नाम	संख्या	दर (प्रति अदद लाख में)	धनराशि (रु0 लाख में)
1	MAC Mult Utility E Cart Hydraulic Garbage E-crt with tipping facility	1	2.50	2.50
2	Single axle hydrolic tractor trolley capacity 6 tonn	1	2.85	2.85
3	Supply of 8 pcs hand cart iron wheels in 3*2*1 size of 6 cubic it capacity 16 gze sheet angle 35*35*5 (per 922)	1	0.73600	0.73600
कुल योग				6.086

अवगत कराना है कि नगर पंचायत तिन्दवारी को राज्य मिशन निदेशालय के पत्र संख्या- पी0एम0यू0/149/427 (10) एस0डब्लू0एम0/2019, दिनांक 11.11.2021 द्वारा निकाय के सीमा क्षेत्र में शत प्रतिशत डोर-टू-डोर कूड़ा कलेक्शन एवं ट्रांसपोर्टेशन हेतु टोस अपशिष्ट प्रबंधन मद से धनराशि रु0 5.5565 लाख अवमुक्त की गयी है। तदनुसार अधिशाली अधिकारी, नगर पंचायत तिन्दवारी द्वारा प्रेषित प्रस्ताव में उपलब्ध धनराशि के सापेक्ष अनुमति हेतु अनुरोध किया गया है।

क्र०सं०	क्रय हेतु प्रस्तावित वाहन/उपकरण का नाम	संख्या	दर (प्रति अदद लाख में)	घनराशि (रु० लाख में)
1	MAC Mult Utility E Cart Hydraulic Garbage E-crt with tipping facility	1	2.50	2.50
2	Single axle hydrolic tractor trolley capacity 6 tonn	1	2.85	2.85
3	Supply of 8 pcs hand cart iron wheels in 3*2*1 size of 6 cubic it capacity 16 gze sheet angle 35*35*5 (per 922)	1	0.73600	0.73600
कुल योग				6.086

उपरोक्त के क्रम में समिति द्वारा नगर पंचायत तिन्दवारी के प्रस्ताव तालिका ख के अनुरूप अनुमति प्रदान की गयी व 5 वर्षों तक मशीनों एवं उपकरणों का रख-रखाव निकाय द्वारा स्वयं किये जाने के निर्देश प्रदान किये गये व निकाय द्वारा अवमुक्त घनराशि से अधिक का व्यय स्वयं के निधि से वहन किया जायेगा।

जेम पोर्टल से उक्तवत् सामग्री क्रय किये जाने हेतु शासन के कार्यालय ज्ञाप संख्या-10084/नौ-5-2021-172सा/2019, दिनांक 25.08.2021 द्वारा गठित क्रय समिति के अनुमोदन उपरांत क्रय प्रक्रिया सुनिश्चित की जाएगी।

7- नगर पंचायत राघाकुण्ड जनपद-मथुरा :-अधिशारी अधिकारी, नगर पंचायत राघाकुण्ड के पत्र संख्या-164/न०प०रा०/2022-23, दिनांक 24 फरवरी, 2022 द्वारा निम्नलिखित प्रस्ताव प्रेषित किया गया है:-

तालिका क

क्र०सं०	क्रय हेतु प्रस्तावित वाहन/उपकरण का नाम	संख्या	दर (प्रति अदद लाख में)	घनराशि (रु० लाख में)
1	ई-रिक्शा टिपर की आपूर्ति का कार्य (इन्श्योरेन्स, रजिस्ट्रेशन अतिरिक्त)	1	3.30	3.30
2	ई-रिक्शा हेतु फ्रैक्शन बॉडी फिक्सिंग लगाने का कार्य (जी०एस०टी० अतिरिक्त)	1	0.65	0.65
कुल योग				3.95

अवगत कराना है कि नगर पंचायत राघाकुण्ड को राज्य मिशन निदेशालय के पत्र संख्या- पी०एम०यू०/149/427 (10) एस०डब्ल्यू०एम०/2019, दिनांक 11.11.2021 द्वारा निकाय के सीमा क्षेत्र में शत प्रतिशत डोर-टू-डोर कूड़ा कलेक्शन एवं ट्रांसपोर्टेशन हेतु ठोस अपशिष्ट प्रबंधन मद से घनराशि रु० 3.7555 लाख अवमुक्त की गयी है। तदनुसार अधिशारी अधिकारी, नगर पंचायत राघाकुण्ड द्वारा प्रेषित प्रस्ताव में उपलब्ध घनराशि के सापेक्ष अनुमति हेतु अनुरोध किया गया है।

उक्त प्रस्ताव का प्रतिपरीक्षण, जेम पर उपलब्ध दरों के सापेक्ष किया गया। प्रस्ताव निम्नवत् है:-

तालिका ख

क्र०सं०	क्रय हेतु प्रस्तावित वाहन/उपकरण का नाम	संख्या	दर (प्रति अदद लाख में)	घनराशि (रु० लाख में)
1	ई-रिक्शा टिपर की आपूर्ति का कार्य (इन्श्योरेन्स, रजिस्ट्रेशन अतिरिक्त)	1	3.30	3.30
2	ई-रिक्शा हेतु फ्रैक्शन बॉडी फिक्सिंग लगाने का कार्य (जी०एस०टी० अतिरिक्त)	1	0.65	0.65
कुल योग				3.95

उपरोक्त के क्रम में समिति द्वारा नगर पंचायत राघाकुण्ड के प्रस्ताव तालिका ख के अनुरूप अनुमति प्रदान की गयी व 5 वर्षों तक मशीनों एवं उपकरणों का रख-रखाव निकाय द्वारा स्वयं किये जाने के निर्देश प्रदान किये गये व निकाय द्वारा अवमुक्त घनराशि से अधिक का व्यय स्वयं के निधि से वहन किया जायेगा।

जेम पोर्टल से उक्तवत् सामग्री क्रय किये जाने हेतु शासन के कार्यालय ज्ञाप संख्या-10084/नौ-5-2021-172सा/2019, दिनांक 25.08.2021 द्वारा गठित क्रय समिति के अनुमोदन उपरांत क्रय प्रक्रिया सुनिश्चित की जाएगी।

एजेंडा नोट-7

निकायों को पूर्व में अवमुक्त घनराशि के सापेक्ष स्वीकृत घनराशि द्वारा क्रयदारी पूर्ण कर अवशेष घनराशि से कूड़े के कलेक्शन एवं ट्रांसपोर्टेशन हेतु आवश्यक उपकरण व मशीनों के क्रय हेतु प्रेषित प्रस्ताव पर राज्य मिशन निदेशक महोदया द्वारा दी गयी अनुमति का अवलोकन-

जिलाधिकारी, चित्रकूट के पत्र संख्या-103/21-स्था0नि0साह0/22 दिनांक 17 फरवरी, 2023 के साथ संलग्न अधिसूचना; अधिकारी, नगर पंचायत मानिकपुर सरहट के पत्र संख्या-834/न0प0मा0/2023 दिनांक 25.01.2023, नगर आयुक्त, नगर निगम प्रयागराज के पत्र संख्या-डी0-242/ कर्गशाला/23 दिनांक 15 फरवरी, 2023, अधिशासी अधिकारी, नगर पालिका परिषद पिहानी के पत्र संख्या-107/ न0पा0परि0 पिहानी/एस0वी0एम0/23 दिनांक 21.02.2023, अधिशासी अधिकारी, नगर पालिका परिषद अमरोहा के पत्र संख्या-1395/का0अ0/ 2022-23 दिनांक 21 फरवरी, 2023, अधिशासी अधिकारी, नगर पालिका परिषद मोदीनगर के पत्र संख्या-938/न0पा0/2023 दिनांक 22 फरवरी, 2023, अधिशासी अधिकारी, नगर पालिका परिषद जालौन के पत्र संख्या-1481/स्वा0वि0 दिनांक 20.02.2023, अधिशासी अधिकारी, नगर पंचायत फौजगंज के पत्र संख्या-444/न0प0 फौ0/23 दिनांक 22.02.2023 एवं अधिशासी अधिकारी, नगर पंचायत रौदपुर (बदायूं) के पत्र संख्या-200/न0प0सौ0/22 दिनांक 22.02.2023 का अवलोकन करना चाहें, जिसके द्वारा स्वच्छ भारत नगरीय-अन्तर्गत ठोस अपशिष्ट प्रबंधन गद के अन्तर्गत कूड़े के कलेक्शन एवं ट्रांसपोर्टेशन हेतु पूर्व में निर्गत धनराशि में से अवशेष धनराशि से उपकरण/मशीन क्रय किये जाने हेतु प्रेषित प्रस्ताव के माध्यम से अनुमति हेतु अनुरोध किया गया है।

निकायवार कूड़े के कलेक्शन एवं ट्रांसपोर्टेशन हेतु क्रय की जाने वाले उपकरण/सामग्री का प्रस्ताव निम्नवत् है:-

1. नगर पंचायत मानिकपुर सरहट (चित्रकूट)

क्र0सं0	अवशेष धनराशि (रु0 लाख में)	क्रय किये जाने वाले सामग्री/वाहन	मात्रा	क्रय किये जाने वाली सामग्री/वाहन की अनुमानित लागत (रु0 लाख में)
1	20.24	Hopper Triper Dumper (5 CBM)	01	20.52

2. नगर निगम प्रयागराज (अवशेष धनराशि रु0 859.88 लाख)

S. No.	Item	Rate (INR)	Quantity (In Nos.)	Amount (INR)
1	Skid Steer Loader (With Multi-purpose bucket, Wheeled)	2992500.00	4	1,19,70,000.00
2	Crawler Hydraulic Excavator (4 Stroke)	2800000.00	8	2,24,00,000.00
3	Two wheel driver power operated Tractors	677817.00	9	61,00,353.00
4	Hydraulic Tractor Traler (4 Tonnes)	3,00,000.00	9	27,00,000.00
5	Utility Vehicles (Manual Two Wheel Drive)	942702.00	10	94,27,020.00
6	Hopper Tipper Dumper (With Capacity 8.5 cubic meters)	31,60,000.00	6	1,89,60,000.00
7	Backhoc loaders cum Excavator (74hp)	3740000.00	4	1,49,60,000.00
Total (INR)				8,65,17,373.00

3. नगर पालिका परिषद पिहानी

क्र0सं0	अवशेष धनराशि (रु0 लाख में)	क्रय किये जाने वाले सामग्री/वाहन	मात्रा	क्रय किये जाने वाली सामग्री/वाहन की अनुमानित लागत (रु0 लाख में)
1	19.80	Garbage Hopper Triper Dumper	01	20.25

4. नगर पालिका परिषद अमरोहा

क्र0सं0	अवशेष धनराशि (रु0 लाख में)	क्रय किये जाने वाले सामग्री/वाहन	मात्रा	क्रय किये जाने वाली सामग्री/वाहन की अनुमानित लागत (रु0 लाख में)
1	31.88697	1100 लीटर डस्टबिन जी0आई0 डस्टबिन (हरा व नीला) 52000 रुपये प्रति जोडा (हरा व नीला)	58	30.16

5. नगर पालिका परिषद मोदीनगर (अवशेष धनराशि रु0 4.70 करोड़)

S. No.	Item	Rate (INR)	Quantity (In Nos.)	Amount (INR)
1	Mini Tipper (CNG) With Registration , Insurance & Sound System	800000.00	10	80,00,000.00
2	नगर के प्रमुख मार्गों, बाजारों एवं व्यस्तता चौकों पर कूड़े के त्वरित कलेक्शन हेतु sprauc up diesel engine operated vehicle mounted dry & Waste Garbage suction machine, capacity-1420 ltr sprauce up (Jatayu super G90/1500)	5040000.00	02	1,00,80,000.00
3	सीमा विस्तार क्षेत्र में डस्टबिन 1100 लीटर (उच्च गुणवत्ता, एम0एस0 शीट) की आपूर्ति का कार्य। Dustbin 1100 Litre	25000.00	50	12,50,000.00
4	80 Liter SS Twin Bins.	16500.00	100	16,50,000.00
5	Wheel Barrow SS Body.	16000.00	200	32,00,000.00
6	Hydraulic Trolley SS Body	400000.00	3	12,00,000.00
7	E-rickshaw for Garbage with tipping facility	215000	8	17,20,000.00

8	Skid Steer Loader with Multipurpose Bucket	2454000.00	02	49,08,000.00
9	Semi Underground Wall Bins, Capacity- 1250 kg	1000000.00	8	8000000.00
10	6 Cum tipper (BS-VI CNG) with registration, insurance & sound system	2500000.00	2	5000000.00
11	Utility vehicle- pick up BS-6, Engine capacity (CC)-2179, Engine BHP-100, Engine Torque- 250, No of cylinder of engine- 4, sitting capacity- 2, fuel tank capacity-45 ltr, type of fuel- disel with registration, Insurance & Sound System	821183.00	3	2463549.00
Total (INR)				4,74,71,549.00

6. नगर पालिका परिषद जालौन

क्र०सं०	अवशेष धनराशि (रु० लाख में)	क्रय किये जाने वाले सामग्री/वाहन	मात्रा	क्रय किये जाने वाली सामग्री/वाहन की अनुमानित लागत (रु० लाख में)
1	5.6355	Tricycle	18	5.76

7. नगर पंचायत फैजगंज

तालिका क

क्र०सं०	अवशेष धनराशि (रु० लाख में)	क्रय किये जाने वाले सामग्री/वाहन	मात्रा	अनुमानित दर प्रति नग (रु० लाख में)	क्रय किये जाने वाली सामग्री/वाहन की अनुमानित लागत (रु० लाख में)
1	14.37551	Unbranded semi trailer (Single Axle) Hydraulic Tractor Trailer Capacity 3 Tonne	2	1.40	2.80
2		My Green Bin 450 Kilogram composter for solid waste Management	30	0.40180	12.054
Total (IN Lakhs)					14.854

उक्त प्रस्ताव के परीक्षणोपरान्त निम्नवत् स्वीकृति प्रदान की गयी:-

तालिका ख

क्र०सं०	अवशेष धनराशि (रु० लाख में)	क्रय किये जाने वाले सामग्री/वाहन	मात्रा	अनुमानित दर प्रति नग (रु० लाख में)	क्रय किये जाने वाली सामग्री/वाहन की अनुमानित लागत (रु० लाख में)
1	14.37551	Unbranded semi trailer (Single Axle) Hydraulic Tractor Trailer Capacity 3 Tonne	2	1.40	2.80
Total (IN Lakhs)					2.80

8. नगर पंचायत सैदपुर

तालिका क

क्र०सं०	अवशेष धनराशि (रु० लाख में)	क्रय किये जाने वाले सामग्री/वाहन	मात्रा	अनुमानित दर प्रति नग (रु० लाख में)	क्रय किये जाने वाली सामग्री/वाहन की अनुमानित लागत (रु० लाख में)
1	10.26551	Unbranded semi trailer (Single Axle) Hydraulic Tractor Trailer Capacity 3 Tonne	2	1.40	2.80
2		My Green Bin 450 Kilogram composter for solid waste Management	20	0.40180	8.036
Total (IN Lakhs)					10.836

उक्त प्रस्ताव के परीक्षणोपरान्त निम्नवत् स्वीकृति प्रदान की गयी:-

तालिका ख

क्र०सं०	अवशेष धनराशि (रु० लाख में)	क्रय किये जाने वाले सामग्री/वाहन	मात्रा	अनुमानित दर प्रति नग (रु० लाख में)	क्रय किये जाने वाली सामग्री/वाहन की अनुमानित लागत (रु० लाख में)
1	10.26551	Unbranded semi trailer (Single Axle) Hydraulic Tractor Trailer Capacity 3 Tonne	2	1.40	2.80
Total (IN Lakhs)					2.80

अवगत कराना है कि मिशन निदेशालय के पत्र संख्या-पी०एम०यू०/2811/427(6)/2019 लखनऊ दिनांक 05.10.2019 के बिन्दु संख्या-7 में निहित प्राविधानों के परिप्रेक्ष्य में शासन के कार्यालय ज्ञाप संख्या-10084/नौ-5-2021-172सा/2019 दिनांक 25 अगस्त, 2021 में सॉलिड वेस्ट मैनेजमेन्ट के अन्तर्गत मिशन निदेशालय से निकार्यों के खाते में अवमुक्त धनराशि से क्रय किये जाने हेतु नगर निगमों के सम्बन्ध में मण्डलायुक्त अथवा उनके द्वारा नामित अधिकारी व नगर पालिका परिषदों/नगर पंचायतों के स्तर पर जिलाधिकारी अथवा उनके द्वारा नामित अधिकारी की अध्यक्षता में गठित समिति से निकार्यों द्वारा वर्णित प्रस्ताव एवं औचित्य पर सहमति की दशा में अनुमोदन किये जाने के पश्चात् ही उपरोक्त सामग्री की क्रय प्रक्रिया की जायेगी। उक्तवत्

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प्रक्रिया का मालन किये जाने पर निम्नीय विगलन की सम्भावना शून्य होगी। निकायों द्वारा प्रेषित प्रस्ताव में दर्शायी गयी अवशेष धनराशि में से अधिक धनराशि का वाहन निकाय द्वारा स्वयं के निधि से वहन किया जायेगा।

उक्तवत् निकायों द्वारा प्रेषित किये गये प्रस्तावों पर कार्य की महत्ता एवं सहाय्य धनराशि के उपभोग किये जाने के दृष्टिगत राज्य मिशन निदेशक महोदयों द्वारा स्वीकृति प्रदान की गयी एवं अग्रेतर राज्य स्तरीय तकनीकी समिति के समक्ष स्वीकृत किये गये प्रस्तावों को अवलोकनार्थ प्रस्तुत किया गया है।

माओ समिति द्वारा अप्रयुक्त धनराशि सापेक्ष प्रेषित प्रस्तावों का अवलोकन किया गया एवं समस्त क्रयदारी जेम पोर्टल पर उपलब्ध न्यूनतम दरों पर किये जाने हेतु निर्देशित किया गया।

निशेष निर्देश:-

1. लिगेसी वेस्ट निस्तारण हेतु निम्न प्रोटोकॉल आर०सी०यू०ई०एस० द्वारा तैयार कराकर निकायों को अनुपालन हेतु प्रेषित किया जायेगा:-

- (1) Legacy waste Remediation Vetting Protocol तैयार किया जायेगा।
- (2) रेगिडिएट किये जाने वाले कूड़े हेतु Measuring Protocol तैयार किया जायेगा।
- (3) कूड़े की मात्रा, भार एवं अनुमानित लागत हेतु Payment Protocol तैयार किया जायेगा।
- (4) लिगेसी वेस्ट के निस्तारण में माप किये गये कूड़े के रेगिडिएशन हेतु Inspection Protocol तैयार किया जायेगा।
- (5) लिगेसी वेस्ट के निस्तारण हेतु Procedured Protocol तैयार किया जायेगा।

आर०सी०यू०ई०एस० द्वारा दिनांक 18 मार्च, 2023 को प्रमुख सचिव महोदय के समक्ष उपरोक्त प्रोटोकॉल का प्रस्तुतीकरण किया जायेगा।

2. ओर-टू-डोर कूड़े के कलेक्शन एवं ट्रांसपोर्टेशन में आवश्यक उपकरणों/संसाधनों के क्रय के विषयगत निम्न निर्देशों का आदरशः अनुपालन सुनिश्चित किया जायेगा:-

- (1) क्रय की जाने वाली सामग्री जेम पोर्टल पर उपलब्ध न्यूनतम दरों पर शारान के कार्यालय झाप संख्या-10084/नौ-5-2021-172सा/2018, दिनांक 25.08.2021 द्वारा गठित क्रय समिति के अनुमोदन उपरान्त क्रय प्रक्रिया सुनिश्चित की जाएगी।
- (2) स्वीकृत प्रस्तावों को जेम के माध्यम से उल्लिखित एवं गुणात्मक दरों के आधार पर ही आवश्यक उपकरणों एवं संसाधनों का क्रय किया जाना है।
- (3) निकायों के पास कलेक्शन एवं ट्रांसपोर्टेशन हेतु अप्रयुक्त धनराशि से आवश्यक उपकरणों एवं संसाधनों के क्रय हेतु CPHEEO की गाइडलाइन के अनुसार प्रस्ताव तैयार कराकर मण्डलायुक्त/जिलाधिकारी की अध्यक्षता में गठित क्रय समिति से अनुमोदनोपरान्त जेम के माध्यम से न्यूनतम एवं गुणात्मक दरों के आधार पर क्रयदारी सम्पन्न की जायेगी एवं क्रयदारी उपरान्त स्वीकृत प्रस्ताव मिशन निदेशालय को अवलोकित कराया जायेगा।
- (4) निकाय द्वारा आवश्यक वाहन एवं उपकरणों की आपूर्ति 01 माह में कर लिया जाय एवं टेण्डर प्रक्रिया की तिथि, क्रय की गयी सामग्री का अंकन स्टॉक रजिस्टर में अंकित करते हुए राक्षम स्तर (नगर निगम के सम्बन्ध में नगर आयुक्त एवं नगर पालिका परिषद/नगर पंचायत के सम्बन्ध में अधिशारी अधिकारी) से सत्यापन कराकर (फोटोग्राफ के साथ) उसकी रिपोर्ट मिशन निदेशालय को प्रेषित करना सुनिश्चित किया जायेगा।
- (5) अपर मिशन निदेशक, स्वच्छ भारत मिशन-नगरीय द्वारा कूड़े के कलेक्शन एवं ट्रांसपोर्टेशन के क्रय हेतु निकायों को पूर्व में निर्गत धनराशि के सापेक्ष क्रय किये गये उपकरणों एवं मशीनों के विषयगत Inventory तैयार की जायेगी एवं उपभोग की गयी धनराशि व अप्रयुक्त धनराशि के सापेक्ष समीक्षा कर राज्य मिशन निदेशक महोदय को अवगत कराया जायेगा।

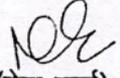
3. ठोस अपशिष्ट प्रबन्धन मद के अन्तर्गत संचालित/क्रियान्वित परियोजनाओं (पूर्व/वर्तमान) हेतु निम्न कार्य संपादित किये जायेंगे:-

- (1) सभी पूर्व/वर्तमान में संचालित/क्रियान्वित परियोजनाओं की गॉनीटरिंग एवं कार्यों के दृष्टिगत प्रोजेक्ट मैनेजमेन्ट यूनिट की स्थापना कर ठोस अपशिष्ट प्रबन्धन सेल का निर्माण सी०एण्डडी०एस० द्वारा शीघ्र किया जाय, जिसके स्वच्छ भारत मिशन-नगरीय 1.0 एवं 2.0 के कार्यों को गतिमान किया जा सके।
- (2) क्षमता संवर्धन (Capacity Building) प्लान हेतु आर०सी०यू०ई०एस० द्वारा तकनीकी विशेषज्ञों के माध्यम से किया जायेगा।
- (3) ठोस अपशिष्ट प्रबन्धन के समस्त कार्यों का निर्वहन मिशन निदेशालय द्वारा आर०एफ०पी० के माध्यम से गठित कर SWM सेल द्वारा किया जायेगा।
- (4) तैयार कराये गये समस्त प्रोटोकॉल समस्त निकायों से साझा कर इराका शत-प्रतिशत अनुपालन कराया जाय।
- (5) रिसोर्स सेन्टर आर०सी०यू०ई०एस० द्वारा Remote Sensing Applications Centre, U.P से समन्वय स्थापित कर प्राप्त डी०पी०आर० के पुनरीक्षण (Vetting) का कार्य किया जाय।

अन्य महत्वपूर्ण विशेष निर्देशः

1. निकायों में लिगेसी चेस्ट निस्तारण का कार्य निर्धारित समयावधि एवं सही गुणवत्ता में पूर्ण कराये जाने का उत्तरदायित्व संबंधित निकाय के नगर आयुक्त/अधिशाली अधिकारी एवं कार्यदायी संस्था सी0एण्डडी0एस0 की होगी।
2. निकायों में शत-प्रतिशत डोर-टू-डोर कूड़े के कलेक्शन एवं ट्रांसपोर्टेशन के लिए क्रय की जाने वाली सामग्री एवं मशीनों की गुणवत्ता, जोम पर उपलब्ध न्यूनतम दरें एवं निर्धारित समयावधि में क्रयदारी पूर्ण कराये जाने का उत्तरदायित्व जनपद स्तर पर गठित क्रय समिति का होगा।

अंत में बैठक सधन्यवाद सम्पन्न हुई।


(नेहा शर्मा)
राज्य मिशन निदेशक

राज्य मिशन निदेशालय

स्वच्छ भारत मिशन-नगरीय, उ0प्र0 लखनऊ।

पत्र संख्या-पी0एम0यू0/79030/547/2022 दिनांक 03 मार्च, 2023

प्रतिलिपि:-निम्नलिखित को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित:-

- 1- प्रमुख सचिव, नगर विकास विभाग (अनुभाग-5), उ0प्र0 शासन।
- 2- संबंधित मण्डलायुक्त, उ0प्र0।
- 3- निदेशक, नगरीय निकाय निदेशालय, उ0प्र0, लखनऊ।
- 4- संबंधित जिलाधिकारी, उ0प्र0।
- 5- संबंधित नगर आयुक्त, नगर निगम, उ0प्र0।
- 6- निदेशक, सी0एण्डडी0एस0, उ0प्र0 जल निगम, लखनऊ।
- 7- अपर निदेशक, क्षेत्रीय नगर एवं पर्यावरण अध्ययन केन्द्र, लखनऊ।
- 8- सहायक निदेशक (लेखा), नगरीय निकाय निदेशालय, उ0प्र0 लखनऊ।
- 10- संबंधित अधिशाली अधिकारी, नगर पालिका परिषद/नगर पंचायत, उ0प्र0।
- 11- गार्ड फाइल।


(नेहा शर्मा)
राज्य मिशन निदेशक

नगर निगम³⁷ गाजियाबाद

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निविदा नोटिस संख्या:- 17 /स्वा0 / 2023-24

दिनांक:- 06/04/23

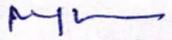
RFP-सूचना

गाजियाबाद नगर निगम सीमान्तगत ग्राम भिक्कनपुर पाईप लाईन रोड स्थित प्रोसेसिंग साईट के लिगेसी वेस्ट के निस्तारण हेतु REQUEST FOR PROPOSAL FOR Selection of Bidder for the Treatment of Legacy Waste through Bio-Remediation, Resource Recovery and Scientific Rejects Disposal at Ghaziabad Nagar Nigam के कार्य हेतु ई-निविदा की वेबसाईट <http://etender.up.nic.in> के माध्यम से दिनांक 09.04.2023 से 22.04.2023 तक दक्ष एवं सक्षम फर्मों से प्रस्ताव आमंत्रित किये जाते हैं। निविदा दिनांक 22.04.2023 को अपरान्ह: 12:00 बजे तक डाउनलोड की जा सकती है और उक्त निविदा दिनांक 22.04.2023 को सांय 04:00 बजे खोली जायेंगी। निविदा शुल्क धनराशि नगर निगम गाजियाबाद के खाता संख्या- 628601041088 आई0एफ0एस0सी0 कोड- ICIC0006286 आई0सी0आई0 सी0आई0 बैंक शाखा राजनगर में जमा कराकर उसकी रसीद की छायाप्रति एवं ई0एम0डी0/एफ0डी0आर0 जो कि लेखाधिकारी नगर निगम गाजियाबाद के नाम पर बंधक होगी, को वेबसाईट पर अपलोड करना अनिवार्य होगा। अन्यथा निविदा पर विचार नहीं किया जायेगा। उक्त कार्य हेतु नियम व शर्तें व अन्य जानकारी उक्त वेबसाईट अथवा अधोहस्ताक्षरी कार्यालय से प्राप्त की जा सकती है।


नगर स्वास्थ्य अधिकारी
नगर निगम गाजियाबाद

प्रतिलिपि:-

1. मै0 सुदर्शन एडवरटाईजिंग.को इस आशय के साथ कि उक्त निविदा सूचना को देशबन्धु एवं नवभारत टाईम्स हिन्दी समाचार पत्रों में प्रथम एवं द्वितीय पृष्ठ को छोड़ते हुये न्यूनतम् साईज में प्रकाशित करवाकर बिल के साथ समाचार पत्रों की दो-दो प्रतियां भी भेजने का कष्ट करें।
2. नोटिस बोर्ड पर चस्पा हेतु।


नगर स्वास्थ्य अधिकारी
नगर निगम गाजियाबाद

ANDWHEREAS the Second Party will submit the provide all relevant documents including E-way bill, Receipt of RDF at the Cement Plant/WTE plant, Invoice and other relevant certificates related to disposal of RDF provided by the First Party to the _____ for claiming the payment.

NOWTHEREFORE the First Party with approval of its competent authority agreeing to receive and dispose RDF recovered during the entire project duration of _____ with approved quality and standard as applicable to cement plant/WTE plant on following terms and conditions and provide all relevant documents including way bill, Receipt of RDF at the Cement Plant/WTE plant, Invoice and other relevant certificates related to disposal of RDF.

TERMS AND CONDITION OF THE LOI

1. Second Part will supply the RDF material from its _____ and other parts of the country to First Part at its plant for disposal.
2. Second part will be responsible for maintaining all the necessary approvals and documents for the transportation of the RDF. If it is found non-compliant First part will not be held responsible.
3. First part will provide the scientific disposal of the RDF supplied by second part and will issue the disposal certificate in name of Second part at the end of each month.

IN WITNESS WHEREOF BOTH THE PARTIES signed and executed this letter of intent (LOI) in presence of the following witnesses at _____ (place name) on _____ day of _____, 2022.

WITNESSES

Party)

(1)

(Authorized Signatory of the First

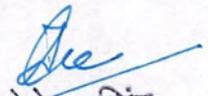
Second Party)

(2)

(Authorized Signatory of the

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महाराष्ट्र नगर निगम


योगेन्द्र सिंह
जाधशासी अभियन्ता (जल)

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Annexure-1

To be executed on Stamp paper of Rupees 100 (One Hundred) value by the intending lead bidder & submitted along with the Bid Document)

THIS Letter of Intent (LOI) is entered into on this the 22nd day of December, 2022

AMONGST

1. _____ a company incorporated under the Companies Act, 1956/2013} and having its registered office at having its registered office at _____ (hereinafter referred to as the "First Part" which expression shall, unless repugnant to the context include its successors and permitted assigns), through its duly authorized representative, _____ and who is duly authorized/ empowered to sign and execute this LOI

AND

- 2., Lead Bidder, _____ a company incorporated under the Companies Act, 1956/2013 and having its registered office at _____ (hereinafter referred to as the "Second Part" which expression shall, unless repugnant to the context include its successors and permitted assigns), through its duly authorized representative, _____ and who is duly authorized/ empowered to sign and execute this LOI

The above-mentioned parties of the FIRST and SECOND are collectively referred to as the "**Parties**" and each is individually referred to as a "**Party**"

WHEREAS

The first party has its cement plant/Waste to Energy (WTE) plant at _____ and is operating the plant since _____ and accepting RDF of required quality as per standard applicable to Cement/WTE plant.

AND WHEREAS the Second Party has participated in the bid for

AND WHEREAS the Second Party has a commitment towards disposal of RDF recovered during the entire project duration of _____, a fulfilment towards minimum eligibility criteria to sign the LOI with its client

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Section 5: Financial Proposal – Standard Forms

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FORM FIN-1
FINANCIAL PROPOSAL SUBMISSION FORM

Location

Date

To: [Name and address of Employer]

Dear Sirs:

We, the undersigned, offer to provide the job for Selection of Bidder for the Treatment of Legacy Waste through Bio-Remediation, Resource Recovery and Scientific Rejects Disposal in accordance with your Request for Proposal dated and our Technical Proposal. Our Financial Proposal is placed as under:

#	Item	Unit	Quantity	Estimated Unit Cost (with all taxes)	Quoted Unit Cost (In Figure) (with all taxes)
	Selection of Bidder for the Treatment of Legacy Waste through Bio-Remediation, Resource Recovery and Scientific Rejects Disposal ULB Name: Ghaziabad				
1	Tipping fee for bioremediation Resource Recovery and Scientific Rejects Disposal of waste (including all taxes)	Metric Tone	1 MT	492/-	
	Quoted Unit Cost (In words) (with all taxes)				

We hereby confirm that the financial proposal is unconditional and we acknowledge that any condition attached to financial proposal shall result in reject of our financial proposal. Our Financial Proposal shall be binding upon us subject to the modification resulting from Contract negotiations, up to expiration of the validity period of the proposal.

Yours sincerely,

Authorize Signature [In full and initials]

Name and Title of Signatory:

Name of Firm:

Address:

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अधिकासी अभियन्ता (जल)

Witnesses: 1.

2.

For

..... (Bidder) (Signature,
name, designation and address)

(Notarised)

Accepted

.....

(Signature)

(Name, Title and Address of the Attorney)

Notes:

- The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required, the same should be under common seal affixed in accordance with the required procedure.
- Wherever required, the Applicant should submit for verification the extract of the charter documents and documents such as a board or shareholders' resolution/ power of attorney in favour of the person executing this Power of Attorney for the delegation of power hereunder on behalf of the Applicant.
- For a Power of Attorney executed and issued overseas, the document will also have to be legalised by the Indian Embassy and notarised in the jurisdiction where the Power of Attorney is being issued. However, the Power of Attorney provided by Applicants from countries that have signed the Hague Legislation Convention, 1961 are not required to be legalised by the Indian Embassy if it carries a conforming Apostille certificate.

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Power of Attorney for signing of Application

Know all men by these presents, We..... (name of the firm and address of the registered office) do hereby irrevocably constitute, nominate, appoint and authorize Mr/ Ms (name),.....

son/daughter/wife of and presently residing at

....., who is presently employed with us and holding the position of

....., as our true and lawful attorney (hereinafter referred to as the "Attorney") to do in our name and on our behalf, all such acts, deeds and things as are necessary or required in connection with or incidental to submission of our application for pre-qualification and submission of our bid for the Request for Proposal for Treatment of Legacy Waste through Bio-Remediation, Resource Recovery and Scientific Rejects Disposal in selected cities of Uttar Pradesh. Project proposed or being developed by the Nagar Nigam Mathura Vrindavan, (the "Authority") including but not limited to signing and submission of all applications, bids and other documents and writings, participate in Pre-Applications and other conferences and providing information/ responses to the Authority, representing us in all matters before the Authority, signing and execution of all contracts including the Concession Agreement and undertakings consequent to acceptance of our bid, and generally dealing with the Authority in all matters in connection with or relating to or arising out of our bid for the said Project and/ or upon award thereof to us and/or till the entering into of the Concession Agreement with the Authority.

AND

we hereby agree to ratify and confirm and do hereby ratify and confirm all acts, deeds and things done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us.

IN WITNESS WHEREOF WE,....., THE ABOVE-NAMED PRINCIPAL HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS.....DAY OF 20.....

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FORM TECH-3

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Letter for Blacklisting

[Location, Date]

To,

[Name and address of Employer]

Subject: Letter of Declaration for not have been Blacklisted

We, [Name of Firm] have not been black listed/ debarred/ termination of contract except for reasons of convenience of employer by any Government/ Government board/ Corporation/ Company/ Statutory Body/ PSU Company/ Non-Government/ Government of any sovereign countries/ Private agencies and Funding Agencies in the last 5 years.

For [Name of Firm],

Authorized Signatory [In full and initials]

Name and Title of Signatory:

Name of Firm:

Address:

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राजिस्टर नं. 1142


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Form 2C: Engagement Experience

List projects in the last five years which are similar to that required in the RFP.

Assignment name:	Value of the contract (in current INR):
Country:	Duration of assignment (months):
Name of Employer:	Total waste processed (Separate for Wet and Dry waste)
Address:	
Start date (month/year):	
Completion date (month/year):	
Narrative description of Project (scope details):	

(In addition to above format, scan copies of completion certificate/certification of work undertaken to be also included for each of the project)

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कारिगार नगर निगम

Dr

योगेन्द्र सिंह
अधिशारी अभियन्ता (जल)

Form 2B: Format for Financial Capability of the Bidder

(Equivalent in Rs. crores)

Bidder*	(Name of Bidder)					
	FY	2019-20	2020-21	2021-22	Total	Average
Annual Turnover						
Net Worth						

Certificate from the Statutory Auditor

This is to certify that _____ (Name of the Bidder) has annual turnover as shown above against the respective years.

Name of the audit firm:

Seal of the audit firm:

Date:

(Signature, name and designation of the authorized signatory)

The Bidder should provide the Financial Capability based on its own financial statements. Financial Capability of the Bidder's parent company or its subsidiary or any associate company will not be considered for computation of the Financial Capability of the Bidder.

* Bidder should fill in details as per the row titled Annual turnover in the row below.

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Form 2: BIDDER'S ORGANIZATION AND EXPERIENCE

Form 2A: Format for Details of Bidder

1. Details of Bidder

a	Name of Bidder with full address	:	
b	Tel. No.	:	
c	Fax No.	:	
d	Email	:	
e	Year of Incorporation.	:	
f	Name and address of the person holding the Power of Attorney.	:	
g	(i) Place of Business.	:	
h	(ii) Date of Registration.	:	
i	Name of Bankers with full address.	:	
j	GSTN Registration Number (copy).	:	
k	Permanent Account Number (copy).	:	
l	Are you presently debarred / Blacklisted by any Government Department /Public Sector Undertaking /Any Employer? (If Yes, please furnished details)	:	
m	Name and details (Tel / Mobile / E mail) of contact persons	:	

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Section 4: Technical Proposal – Standard Forms

FORM TECH-1

LETTER OF PROPOSAL SUBMISSION

[Location, Date]

To,
.....

Dear Sirs,

We, the undersigned, offer to provide the job for Selection of Bidder for Scientific Dumpsite Land Reclamation through Bio-remediation, Resource Recovery and Scientific Rejects in Ghaziabad in accordance with your Request for Proposal dated and our Proposal. We are hereby submitting our Proposal, which includes this Technical Proposal, and a Financial Proposal with requisite EMD and bid processing fees.

We hereby declare that all the information and statements made in this Proposal are true and accept that any misinterpretation contained in it may lead to our disqualification.

If negotiations are held during the period of validity of the Proposal, we undertake to negotiate on the basis of the proposed staff. Our Proposal is binding upon us and subject to the modifications resulting from Contract negotiations.

We understand you are not bound to accept any Proposal you receive.

We remain,

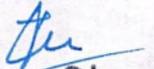
Yours sincerely,

Authorized Signatory
[In full and initials]

Name and Title of Signatory:
Name of Firm: Address:

My _____

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प्राथमिक नगर विभाग


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अधिरासी अभियन्ता (जल)

- e. At all times during continuance of the contract, the agency shall abide by all existing and future labour enactment and rules made there under, regulations, notifications and bye-laws of the Central, State or Local Government. The agency shall keep the ULB indemnified in case any action is taken against the ULB by any Authority on account of contravention of any of the provisions of any Act or rules made there under, regulations or notifications including amendments.
- f. The agency shall keep all records desired under the said labour laws, submit periodical returns to the respective statutory Authority. The agency shall in respect of labour employed by him comply with or cost to be complied with provisions of the various labour laws and the Rules and Regulations as applicable to them in regards to matters provided therein.
- g. The agency shall obtain the license in accordance with the Rules and Provisions of Contract Labour (Regulation and abolition) Act, 1970 and adhered all terms and condition stipulated therein, if applicable.
- h. The agency shall pay the staff deployed by him under this contract as per the minimum wages act in force and amendments.
- i. Not with standing anything contained herein, the ULB may take such action as may be necessary for compliance of the various Applicable Labour Laws and to recover the cost thereof from the agency.

3.4.8 Pre-Operational Activities:

The Bidder shall have to complete the following activities before starting production of bye product. The Bidder shall commence all activities concurrently. The details of activities are as follows:

Sl.No.	Description of Activity	Duration for Completion of Activity (in Days)
		Start date
1	Issue of Letter of Acceptance (LOA) cum work order from Employer	
2	Acceptance of LOA cum work order from agency	Within two (2) days from the date of issue of LOA cum work order.
3	Deposit of Performance Security	Within two (2) days from the date of issue of LOA cum work order.
4	Signing of Agreement	Within two (2) days from the date of issue of LOA cum work order.
5	Submission of plan of action	Within five (5) days from the date of issue of LOA cum work order to the Agency.
6	Mobilization of the machinery and Manpower/ start of work/ deployment of vehicles	Within ten (10) days from the date of issue of LOA cum work order to the Agency.
7	Erection & commissioning of, plant & machinery	Within Thirty (30) Days from the date of issue of LOA cum work order to the Agency.

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The authority will target to complete the bill payment within 14 days of receiving the invoice. However, in case of any delay on authorities' part on verification beyond 14 days. 75% payment shall be released immediately and the remaining 25% payment after verification by the Authority (if available) However on further delay beyond 7 days on part of authority this 25% shall also be released and if any discrepancies found by the authority during monitoring the penalties may be deducted from future bills (but the same is not valid beyond 60 days' time period- if a valid reason is not specified).

Penalties

- Penalty of Rs.5.0 lakh per month will be imposed for delay in commencement of the necessary machinery and manpower beyond the scheduled date. One month will be considered if the delay is more than 21 days but less than 31 days.
- The concessionaire is responsible for storage / transportation / disposal of residual waste safely as per the provisions made in the SWM Rules, 2016. The residual waste should not be dumped on road side or on other's property. If the residual waste is dumped on road side or any other non-designated site, a penalty of Rs. 10,000/- per event will be charged to the concessionaire.
- If the fractions of the waste to clear the land are not disposed or sale / recycled in time bound manner then the penalty of Rs. 50,000 shall be imposed on weekly basis.

3.4.6 Hand Back and Transfer:

One all the waste is processed and the site is cleared the bidder needs to hand back the reclaimed land to authority free from any encumbrances and encroachment. The bidder needs to clear the site of all the vehicles and equipment and transfer the process inerts/rejects to the sanitary landfill located in the waste processing site located in the city. The reclaimed land has to be in level condition with all the green belt intact and the bidder has to do basic landscaping (grass) of the land parcel before handover.

3.4.7 Human Resource:

- The agency shall, during the contract period, have requisite staff/representatives as required to run the plant and to be responsible for all necessary exchange of information required for performing operations and providing services under this contract.
- The agency shall be responsible for health safety measures of his workers.
- The agency shall comply with all the provisions of the laws regarding deployment of labour under the contract. It shall be the liability and responsibility of the agency to implement the provisions of Acts; the Contract Labour (Regulation and Abolition) Act, 1970, the Minimum Wages Act, 1948 and the Workmen's Compensation Act, 1923. In addition to followings:
- The agency shall not employ in connection with the operations and services under this contract any person of less than 18 years age.

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- a. Weighment system application, database, other software licenses, server with adequate capacity and required configuration shall be provided by the Concessionaire. The server facilities like server room, rack, power supply, UPS & air conditioning shall be provided by the Concessionaire. It will be installed at Legacy waste site location of which will be notified by Health Department GNN.
- b. Server should have back up storage of all the data of weighment system during the Concession Period.
- c. Dedicated connectivity for ULB authorities shall be provided by the Concessionaire to get the real time data to monitor the operations as and when desired by ULB.
- d. All the facilities i.e. weighment system application, database, other software licenses, server facilities shall be the property of ULB after end of the concession period.
- e. Administrative privileges of the server related to all data of weighment system, and CCTV shall be with ULB.
- f. Any technical errors/malfunctioning of server data shall be rectified by the concessionaire at his own cost in the shortest possible time within 24 hour

3.4.5 Payment & Penalty Calculation Module

The payment to the Bidder will be on the basis of the amount finalised in the bid per metric ton and the Bidder has to quote the rates for the same.

The volumetric analysis of the legacy waste is to be done on monthly basis through total station/ contour mapping methods. However the weight of the legacy waste shall also be measured at the weigh bridge (to be installed by the bidder) before the sieving process and after the digestion of the waste through suitable Bio-culture solution/ enzymes etc as prescribed in the guidelines laid down by the Central Pollution Control Board under Schedule-J.

The weight calculation with the help of the

Volume (through Contour Survey) X Density measured through pit system/ baseline as per the DPR

OR

The weight obtained through weighment of legacy waste before sieving.

Satellite Imaginary will be done at the time of 40%, 80% & 100% of payment. The cost of the satellite imaginary procedure shall be borne by the successful bidder. Payment shall be adjusted as per satellite imaginary result at the time of 40%, 80% & 100% payment.

- Whichever is the less shall be firmed for making the payments.

The appropriate documents related to the analytics done throughout the month shall be annexed with the bill submitted.

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- a. The concessionaire on behalf of client will keep the weigh bridge (to be installed by the bidder) record of processing on daily basis. The ULB authority is authorized to inspect/audit the accounts. ICT based mechanism should be established to monitor weighbridge activity and measurements.
- b. The concessionaire shall maintain and submit electronic reports of the above records, using software and formats approved by the ULB, on a monthly basis. All records shall be available to ULB at reasonable times and places throughout the term of any contract resulting from this RFP.

3.4.4 Weighment System and Monitoring Weighment

The Concessionaire shall set up computerized weigh bridges of required capacity for weighment of the waste mined from the open dump and for the outgoing processed materials as approved by Health department GNN. This weighment system shall be installed at the entry gate of the proposed processing facility to be decided in consultation with Health Department GNN and should meet the following conditions:

- a. It should be a pit-less fully online electronic, automatic system equipped with the latest technology along with backup server facility. Data of weighment system shall be maintained properly for the entire Concession period with backup server facility and shall be provided as & when required by Health department GNN and competent authorities.
- b. Entire dumping/mining complex should be under complete CCTV surveillanceduring the Concession Period. Weighment system should be operated in CCTV surveillance with data storage of entire Concession period. For CCTV surveillance High Definition IP based cameras in adequate numbers (as directed by ULB) shall be provided by the Concessionaire with following specifications, but not limited to: (1) Speed-30 fps (2) Resolution-Full HD, Infrared-supported, Automatic number plate recognition and integrate the feeds of Cameras with Command and Control Centre of ULB.
- c. CCTV Recordings of operation of weighment system shall be provided as and when required by Health Department GNN and competent authorities.
- d. Correction/repairs of any malfunctioning in operation of weighment system will be the responsibility of the concessionaire.
- e. In case any malfunction/technical problem in the functioning of weighment system, the same shall be rectified by the concessionaire within a period of 24 hrs. During this period of failure, weighing of MSW shall be carried out at a private weighbridge located outside which should be approved by Health Department GNNat concessionaire's cost and no additional charges will be paid by ULB.
- f. The vehicles used for transportation of waste within site shall be have National Permit(or) registered /Approved by R.T.O. Health Department GNN and fulfil all rules & regulations of State of UP in force as specified by the said authority from time to time. Also, these vehicles shall be equipped with Radio Frequency Identification (RFID).

Server & connectivity for Weighment:

The requirements of the project to be met by the Concessionaire are as listed hereunder:

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- xix. The revenue or the income from the sale of the segregated Useful Material such as reusable and recyclable, Compost, soil conditioner, raw RDF, C&D, Soil or any other by- product materials shall go to the Bidders account. The Bidder shall initiate the sale or disposal process of the material by-products only after the intimation to the authority.
- xx. The Bidder shall hand over reclaimed land and scientific residual solid waste disposal site to the Authority in a good and acceptable condition as per SWM Rules 2016.
- xxi. Carrying out the entire project work in accordance with the DPR, Detailed Plan of Action and schedule proposed by Bidder and approved by the Authority at the cost of the Bidder.
- xxii. Using only covered body vehicles for the transportation of materials at the cost of the Bidder.
- xxiii. Apply method, process, equipment and resources which would reduce the impact of dumpsite reclamation activity in the adjacent areas.
- xxiv. Create facilities and make arrangements for controlling/ mitigating the emission, pollution and contamination (Environment impact) including air, water and soil including mitigation for of dust, odor and noise pollution at the cost of the Bidder.
- xxv. Construction of temporary site office, water, power, sanitation facilities and accommodation facilities of workers for the Project as per statutory standards at the cost of the Bidder.
- xxvi. Providing security arrangement for the project site, machineries, equipment etc. at its own cost
- xxvii. The Bidder should take precaution of minimizing flies, rodents and bird menace and fire hazards.
- xxviii. The Bidder shall also provide fire protection measures and safety equipment.
- xxix. Completing the work within the Contract Period as per the agreed Deployment schedule
- xxx. ICT based monitoring – the selected bidder to establish CCTV cameras in the premises to effectively monitor the project. The bidder to also provide access of the same to the project authority.
- xxxi. Sub-contract of work not Allowed.
- xxxii. The piece of land where the legacy waste is accumulated is of private farmers, so after remediation of legacy waste the successful bidder has to comply the agreement executed between GNN and farmers.

3.4.2 Scope of the Municipality/Municipal Corporation:

- a. Provide baseline data of the said site such as Volume/ density etc.

3.4.3 Record keeping and Reporting:


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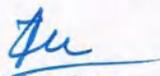
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- ix. Usually the top layer has fresh waste, dust and may have several materials in the active biological state. This layer is to be stabilized through application of Bio-Culture, herbal/biological sanitizers, inoculants or through any suitable scientific method as proposed by the Bidder and accepted by the Health Department. Odour shall be controlled and minimized through application of deodorant or scientific method.
 - x. The baseline calculation on the volume and density of waste dumped is done by the authority and that shall be treated as baseline to start the work however the monthly analysis of the volume through contour survey and sample pits on the site for the density to be done with the consultation of the Nodal person appointed by the authority.
 - xi. Excavating the existing mixed compacted MSW in the land portion allocated/earmarked by the Authority and sieving them by Mechanical sieving machine or any other suitable technology proposed and accepted by the Health Department.
 - xii. The Bidder shall deploy sufficient machinery, manpower and required resources to execute the project scope within the project duration.
 - xiii. Provision, installation, operation and maintenance of plant, machineries, infrastructure facilities and amenities for excavation, sieving of the excavated MSW, storing the segregated materials, reuse, marketing, selling, and transporting them from the project site.
 - xiv. Construction of temporary shed, platform and creation of facilities for handling, separating, segregating, storing and quantifying of the excavated MSW and processing material.
 - xv. Segregate the excavated (if required) MSW in the land portion earmarked into as many kinds and categories as possible of Useful Material such as compost, soil conditioner, recyclables, raw RDF, filler material (Soil, C&D) and Un-useful material such as residual Solid Waste.
 - xvi. Packing, storing, stacking, selling, diverting for recycling, marketing and recycling of all Useful Material within sixty days of segregation at the cost of the Bidder, without accumulation in the storage facility at the project site beyond sixty days.
 - xvii. Baling, packing, stacking, storing and sale of non-recyclable fraction of high calorific as raw material to RDF producer/ user or sale to waste to energy or co-processing in cement plants or to thermal power plants.
 - xviii. Stacking, transporting, spreading and compacting the segregated C&D, Soil and Inert as filler material in low level and depression area within the site and prepare well compacted and clear ground for proposed development at site or disposing such material in the low level area or quarry area at the cost of the Bidder with proper compliance to the statutory requirements.

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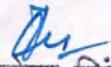
Waste, resource recovery and Scientific disposal of residual solid waste at Bhikkanpur, Pipeline road under the Ghaziabad Municipal Corporation, Ghaziabad. The contract shall be awarded to the successful bidder ("the Bidder") for a period of 12 months inclusive of rainy season reckoned from the date of signing of contract agreement. Overall supervision, monitoring and certification of the works executed by the Bidder will be done by Health department GNN.

Bidder should note that the services under the Project will come under The U.P. Essential Services Maintenance Act, 1966 and Bidder will be allowed to stop the work on only 3 National Holidays (26th January, 15th August and 2nd October)

The brief scope of work to be carried out by the selected Bidder during the execution of the intended project includes, but not limited to, the following component:

- i. The envisaged project completion time is 12 months from the date of commencement of operations for this project. The bidder has to deploy adequate machinery in order to meet the timeline.
- ii. The Bidder shall carryout Total Station Survey of complete project site including area earmarked in which Bio-remediation is to be done on monthly basis of physical progress of land reclamation at the site. The survey report shall be submitted along with each running bill. The area earmarked by Authority for Scientific Dumpsite Land Reclamation through Bio-remediation, Resource Recovery and Scientific Rejects Disposal at Bhikkanpur Pipeline road, Ghaziabad" shall be considered as 100% area for the scope of work. Bidder to reclaim the entire dumpsite waste through Bio-remediation to allow total land recover as per the guidelines laid down by CPCB including all steps to follow mandatorily under the Schedule J of the said guidelines.
- iii. Bidder shall earmark a land parcel for dumping of fresh waste sufficient for the contract period in case no sufficient processing facility available. In case the new processing site is established the same to be cleared of any waste and land to be reclaimed
- iv. 100% of the Land to be reclaimed even if any quantity of Legacy Waste found more than the mentioned estimated quantity in para 3.2. No extra payment shall be done for the extra quantity.
- v. The Bidder shall set a soil and ground water baseline so that the same will be available to evaluate post Bio-remediation of the site.
- vi. The Bidder shall monitor ground water quality, work zone air quality and ambient air quality monitoring within the site from authorized laboratories/agencies and submit the report on monthly basis.
- vii. The Bidder shall conduct its own due diligence for site investigation, analysing the characteristics, composition and quantum of the waste at the Project site.
- viii. Dumpsite reclamation will be done by dividing the site into suitable sectors/loops in consultation of the Health Department GNN based on the priority of land reclamation.


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Section 3: Terms of Reference

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3.1 Background

The "Swachh Bharat Mission - Urban" (SBM-U) is a major initiative of Government of India with a vision of a 'Clean India'. To achieve the objectives of the Swachh Bharat Mission (Urban), the Government of Uttar Pradesh proposes to strengthen the entire MSWM system in all the Urban Local Bodies (ULBs) in Uttar Pradesh so as to comply with the Solid Waste Management Rules 2016, Service Level Benchmarks of the Government of India (GoI) & achieve the objectives of Swachh Bharat Mission (SBM).

3.2 Project Background

The Swachh Bharat Mission (SBM) emanates from the vision of the Government articulated in the address of The President of India in his address to the Joint Session of Parliament on 9th June 2014. 'We must not tolerate the indignity of homes without toilets and public spaces littered with garbage'. For ensuring hygiene, waste management and sanitation across the nation, a "Swachh Bharat Mission" was launched. This proposed project aims at reclamation of land from the existing site Bhikkanpur, pipeline road, Ghaziabad through the process of Bio-remediation.

Current Scenario at Ghaziabad:

S. No.	Description	Details
1.	Population (Census 2011)	16 Lakh
2.	Present Waste Generation (2022-23)	1500-1600 MT/Per Day
3.	Legacy waste Site Location	Bhikkanpur Pipeline road
4.	Approximate total Legacy waste at site	272214 MT
5.	Total Area of the Site	Approx. 7.5 Acre

3.3 Objective

The overall objective of this project is to create an efficient and effective solid waste management system in municipality / municipal Corporation. The sub objectives are as follows:

- To comply with Solid Waste Management Rules, 2016 and applicable laws, rules, guidelines in India and best Engineering practices through Public Private Participation.
- To improve the existing standards of public health and environmental quality through bioremediation of existing legacy waste including selling of recyclables.
- Improve productivity of manpower, materials and equipment and promote economic operations of services.
- Promote and protect the quality and sustainability of overall urban environment in the service area.

3.4 Scope of Work

- 3.4.1 The current project intends to undertake the works required for Dumpsite Land Reclamation through Bio-remediation of old Dumped Municipal Solid Waste/Legacy

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S. No.	Specific experience of the Bidder firm	M.M (100)	Document Proof
5	Innovative project design and technology (Novel approach)	5	
6	Monitoring and Execution plan	5	
7	Market development plan for Plastic recycling unit/ appropriate technology and process inerts including sale of recyclables	5	
	<i>The price bids of only those Bidders who qualify technically (above 70 marks) will be considered for financial evaluation.</i>	Total 100 Marks	


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S. No.	Specific experience of the Bidder firm	M.M (100)	Document Proof
C	Experience in sale/dispose of by-products (RDF or Compost) generated from Municipal Solid Waste processing projects in last 3 financial year, cumulatively. Bidder shall submit either client certificate or statutory auditors certificate confirming the quantity sale/dispose in last three financial years	10 Marks	client certificate or statutory auditors certificate along with Work Order/ Contract copy
1	Average of minimum 20,000 tons in last 3 years	05 marks	
2	Average of minimum 30,000 tons in last 3 years	10 marks	
D	Number of established bioremediation/MSW processing facilities as sole entity or as a lead partner (>50% share in JV/Consortium) with any of the Government / Local bodies / (i.e., Municipal Corporation / Local Bodies) or PSU's. (Aggregate of current running project) within last 5 years before the date of publishing of this tender.	10 marks	Self-Certification by the Bidder and Contract Copy
1	Minimum 2 – 3	5	
2	4 and above	10	
E	Agreement as per Annexure-1 with cement factory/WTE etc. for disposal of RDF as per MSW rules from Ghaziabad for this project	10 marks	Valid agreement copy. Site visit/verification may be done by GNN
1	20,000 to 30,000 MT	05	
2	More than 30,000 MT	10	
F	Availability/identified land for disposal of Bioearth/inert etc. within Ghaziabad/nearby area	10 marks	Valid agreement copy. Site visit/verification may be done by GNN
1	Upto 15 Acre	05	
2	More than 15 Acre	10	
G	Presentation before the BSC constituted by the Authority:	30 marks	
1	The PPT/Document should have the following components (not exhaustive):		
2	Technical profile of the company	5	Approach and Methodology with elaborate plan on each factor
3	Understanding of the Scope of Work	5	
4	Proposed methodology of Bidder for undertaking the assignment a) Work Plan b) Manning Schedule c) Comments on TOR Plant architecture and design details (proposed), including equipment specification	5	

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	available for 2021-22 then bidder may submit audited statements for FY 2018-21).	the company for last three years CA Certificate for Turnover
6	The Bidder shall have a minimum Net Worth of INR 3 Crores at the close of the preceding financial year as on date of 31.3.2023 or after.	CA Certificate for Net Worth
7	The Bidder should not have incurred any loss in the last three years of operation i.e. 2019-20, 2020-21 & 2021-22	Audited balance sheet to be submitted for the same
8	Out of any similar legacy waste projects at least one project should be done for Municipal Corporation having population more than 5 Lakhs.	Copy of contract agreement / work orders and successful performance certificate by competent Authority.
9	Bidder shall submit latest Bank Solvency Certificate for a value not less than 03 Cr. (not older than 6 months)	Issued by bank-on-bank letter head.
10	Bidder should not be declared insolvent/ bankrupt in the last five years.	Self-Declaration Certificate of Rs. 100 Stamp Paper

Technical Evaluation

The detailed technical evaluation of Proposals satisfying minimum eligibility conditions as above shall be done. The Criteria, sub-criteria and point system for detailed evaluation shall be as follows:

S. No.	Specific experience of the Bidder firm	M.M (100)	Document Proof
A	Average Annual Turnover of last 3 consecutive years i.e. 2019-20, 2020-21 & 2021-22 (As per the bank / CA statement) with ITR	10 Marks	Average Annual Turnover statement certified from CA
1	₹ INR 8 Crore	02 Marks	
2	₹ INR 12 Crore	05 Marks	
3	₹ INR 25 Crore	10 Marks	
B	Experience of establishing and O&M of Bioremediation Facilities (any technology)/MSW processing with any of the Government / Local bodies / (i.e. Municipal Corporation / Local Bodies) or PSU's. (Aggregate of current running project) within last 5 years, cumulatively. Before the date of publishing of this tender.	20 Marks	Experience certificate along with Work Order/ Contract copy
1	Processed 1,60,000 to 3,20,000 MT	10 Marks	
2	Processed more than 3,20,000 to 5,00,000	15 Marks	
3	Processed more than 5,00,000 MT	20 Marks	

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2.16 Procedure for Detailed evaluation of Technical qualifications (Pre-Qualification)

The firms will be shortlisted against the eligibility criteria. Those who qualify / fulfil these criteria shall be considered for technical evaluation.

Sl. No	Procedure for Detailed evaluation of Technical qualifications.	
	The firms will be shortlisted against the eligibility criteria. Those who qualify/fulfill these criteria, shall be considered for technical evaluation.	
	Particulars	Supporting Documents to be submitted
1	The Bidder shall be a private company, firm, LLP, entity incorporated in India under the (Indian) Companies Act 1956 / 2013 or a company formed under any other law for the time being in force in India and incorporation should not be less than 5 years old. The Bidder shall be required to submit a true copy of its Incorporation Certificate.	Copy of Certificate of Incorporation or similar document (as applicable) issued by Government.
2	The Bidder must have a valid GSTN certificate.	Copy of GSTN Certificate
3	The Bidder or its associate companies should not be blacklisted/ debarred or terminated due to Non-Performance under any contract by any Government/ Government Board/ any Urban Local Body of the Country / Corporation Company/ Statutory Board/ PSU company/ Government of any sovereign countries in the last 5 years.	Self-Certification by the Bidder
4	<p>The Bidder should have successfully completed / *Ongoing Projects relating to Scientific Dumpsite Reclamation/ Bioremediation of Dumpsites or have processed MSW through Windrow composting & RDF method in consecutive two year of operation during preceding seven financial years prior to the due date of this Bid submission as per the following details:</p> <p>A) One Project of Minimum 3,20,000 Metric Tons Or B) Two Projects of Minimum 2,00,000 Metric Tons Or C) Three Projects of Minimum 1,20,000 Metric Tons</p> <p>(*Ongoing: If the work is ongoing then the Bidder should have received at least 60% payment of the total contract value till submission of tender document. In case of experience of processing of waste through windrow composting & RDF method, Client certificate of processing such waste in consecutive two years of project in last 5 years shall be produced.)</p>	Copy of contract agreement / work orders and successful completed performance certificate by competent Authority along with TDS Certificate.
5	The Bidder should have average Annual Turnover of last three (3) financial years, i.e. 2019-20, 2020-21 & 2021-22 of at-least INR 8 Crore. (In case of audited statement not	Copy of the audited profit and loss account along with audited balance sheet of the company showing turnover of

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Project Responsibility Matrix

S.No.	Responsibility Description	Ownership
1	Project Authority	Ghaziabad Nagar Nigam, Ghaziabad
2	Purchase of all plant machinery and equipment	Selected Bidder/Agency
3	Installation and maintenance of weighbridge.	Selected Bidder/Agency
4	Provide encroachment free site for setting up the plant with connectivity to approach road and electricity and power supply availability till entrance of the facility	Project Authority
5	Civil construction	Selected Bidder/Agency
6	Plant O&M	Selected Bidder/Agency
7	Reselling of RDF/Recyclables	Selected Bidder/Agency
8	Any required environmental clearance	Selected Bidder/Agency

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c) Minimum score of 70% marks.

Technical Score $S(t) = S(c) * 0.70$ (weightage of 70%)
Where, $S(c)$ is the score obtained in process 1b.

Stage 2: Financial Proposal

Requirement for eligibility in Stage 2:

- Cleared stage 1 (1a and 1b with minimum 70% marks in stage 1b).
- Financial proposal as per the requirements (eligibility and document) of RFP
- Test of Responsiveness complete (complete document submission).

Financial Score $(F_s) = F(m)/F(e) * 0.30$ (weightage of 30%)

Where F_m = Minimum Financial Quote

$F(e)$ = Bid under evaluation

Total Score $(H) = S(t) + F(s)$

Bidder with the highest Total Score (H1) will be selected

In-case of a tie; the bidder with a higher technical score will be qualified, on further tie the bidder with higher average annual turnover of last 3 consecutive financial years 2019-20, 2020-21 & 2021-22 will be qualified.

(Calculations will be adjusted to two decimal places for both commercial bid and Technical Score calculations, if required)

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		authority which will be reimbursed by employer on submission of requisite documents.
12	Bidder to state the cost in	Indian Rupees (INR; ₹)
13	Evaluation Criteria: Criteria, sub-criteria, for evaluation of Technical Proposals have been prescribed:	Detailed evaluation as mentioned below this Table of Data Sheet.
14.	Method of Selection	<p>QCBS (70 Technical: 30 Financial) based selection</p> <p>Stage 1: Pre-Qualification:</p> <p>a) Bidders who qualify in the Eligibility Criteria will be considered for Technical Evaluation in Stage 2</p> <p>b) Bidders who qualify in the Presentation before the technical committee constituted by the Authority will be considered for Technical Evaluation in Stage 2. The PPT/Document should have the following components (not exhaustive):</p> <ul style="list-style-type: none"> • Technical profile of the company • Understanding of the Scope of Work • Proposed methodology of Bidder for undertaking the assignment • Work Plan • Manning Schedule • Comments on TOR • Plant architecture and design details (proposed), including equipment specification • Innovative project design and technology (Novel approach) • Monitoring and Execution plan • Market development plan for RDF/Plastic/other recycling products generated from LegacyWaste processing and process inerts including sale of recyclables <p>Stage 2: Technical Qualification:</p> <p>Bidders who qualify the following will move to Stage 3:</p> <p>a) Eligibility as per RFP requirement.</p> <p>b) Test of Responsiveness complete (complete document submission).</p>

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DATA SHEET

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S.No.	Particulars	Details
1.	Name of the Employer:	Ghaziabad Nagar Nigam
2.	Name of the Assignment/ job:	Selection of Bidder for treatment of legacy waste through Bio-Remediation, Resource Recovery and Scientific Rejects Disposal at Bhikkanpur Pipeline road, Ghaziabad Nagar Nigam.
3.	Date & time and address for submission of proposal/ bid:	22/04/2023 upto 2:00 PM (online Submission) https://etender.up.nic.in
	Date:	22/04/2023
	Time:	2:00P.M
	Address:	GNN Navyug Market, Ghaziabad
4.	The Employer's representative is:	Municipal Health Officer, Ghaziabad Nagar Nigam
	Address:	Navyug Market, Ghaziabad
	Telephone:	0120-2790425
	Facsimile:	
	E-mail:	gzb.nagar.nigam@gmail.com
5.	Proposals must remain valid days after the submission date, i.e. until:	180 days
6.	Bidders may send in their queries till Date:	15/04/2023
7.	Pre-Bid Meeting Date:	15/04/2023
8.	Contact	0120-2790425
	The address for requesting clarifications is:	Ghaziabad Nagar Nigam through online on Email id- nsagzb808@gmail.com
	Facsimile:	
	Email:	gzb.nagar.nigam@gmail.com
9.	Proposal Submission	In addition to technical proposal, Bidders are required to submit financial proposal (prescribed forms attached). Submission of the technical and financial proposal in improper form will render the proposal liable to be rejected.
10.	Addendum to be issued	
11.	Taxes	Bidder has to quote the bid amount with GST, All other taxes/levies/octrois/income tax/personal tax (including GST) etc. to be borne by the Bidder under the contract.

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2.13.4 If at any point of time post award of contract, the winning Bidders withdraws their proposal then the LoA may be awarded to the Bidder coming 2nd in the evaluation process subject to their agreement on undertaking the work on the lowest rate quoted in the bid. The same is subject to discretion of the Authority.

2.14 Confidentiality

- 2.14.1 Information relating to evaluation of Proposals and recommendations concerning awards shall not be disclosed to the Bidders who submitted the Proposals or to other persons not officially concerned with the process, until the publication of the award of Contract. The undue use by any Bidder of confidential information related to the process may result in the rejection of its Proposal and may be subject to the provisions of the Employer's antifraud and corruption policy.
- 2.14.2 The employer reserves the right to verify all statements, information and documents submitted by the Applicant in response to the RFP. Any such verification or the lack of such verification by the Employer to undertake such verification shall not relieve the Applicant of its obligation or liabilities here under nor will it affect any rights of the Employer here under.
- 2.14.3 The selection process shall be governed by and construed in accordance with the existing laws. Final decision shall be of Municipal Commissioner GNN in case of all disputes arising under pursuant to and/or in connection with the selection process.

2.15 JV/Consortium

- 2.15.1 JV/Consortium is allowed for maximum of 02 members.
- 2.15.2 BID submitted by a JV shall include a copy of the joint venture agreement
- 2.15.3 The form shall submit only one proposal either individually or as a JV partner.


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2.12 Proposal Evaluation

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- 2.12.1 From the time the Proposals are opened to the time the Contract is awarded, the Bidders should not contact the Employer on any matter related to its Technical and/or Financial Proposal. Any effort by Bidders to influence the Employer in the examination, evaluation, ranking of Proposals, and recommendation for award of Contract may result in the rejection of the Bidders' Proposal.
- 2.12.2 The employer has constituted a Bidder Selection Committee (BSC) which will carry out the entire evaluation process.
- 2.12.3 **Evaluation of Technical Proposals:** BSC while evaluating the Technical Proposals shall have no access to the Financial Proposals until the technical evaluation is concluded, and the competent authority accepts the recommendation.
- 2.12.4 The BSC shall evaluate the Technical Proposals based on their responsiveness to the Terms of Reference and by applying the evaluation criteria, sub-criteria specified in the Data sheet. In the first stage of evaluation, a Proposal shall be rejected if it is found deficient as per the requirement indicated in the Data sheet for responsiveness of the proposal. Only responsive proposals shall be further taken up for evaluation. Evaluation of the technical proposal will start first and at this stage the financial bid (proposal) will remain unopened. The qualification of the Bidder and the evaluation criteria for the technical proposal shall be as defined in the Data sheet.
- 2.12.5 Public opening & evaluation of the Financial Proposals: Financial proposals of only those firms who are technically qualified shall be opened publicly on the date & time specified the Data sheet, in the presence of the Bidders' representatives who choose to attend. The name of the Bidders, their technical score (if required) and their financial proposal shall be read aloud.
- 2.12.6 The BSC will correct any computational errors. When correcting computational errors, in case of discrepancy between a partial amount and the total amount, or between word and figures, the former will prevail for both the cases. In addition to the above corrections the items described in the Technical Proposal but not priced, shall be assumed to be included in the prices of other activities or items.
- 2.12.7 After opening of financial proposals, appropriate selection method shall be applied to determine the Bidder who will be declared winner and be eligible for award of the contract. The methods of selections are described in the RFP document [The employer shall mention here which method out of all listed method shall be applied for selection of Bidder for this assignment / job].

2.13 Award of Contract

- 2.13.1 The Employer shall issue a Letter of Intent to the selected Bidder and promptly notify all other Bidders who have submitted proposals about the decision taken.
- 2.13.2 The Bidders will sign the contract after fulfilling all the formalities/pre-conditions including Performance Guarantee as mentioned in the standard form of contract after receipt of the letter of intent.
- 2.13.3 The Bidder is expected to commence the Assignment/ job on the date and at the location specified in the document.

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- If the Proposal is varied or modified in a manner not acceptable to the Employer after opening of Proposal during the validity period or any extension thereof.
- If the Bidder tries to influence the evaluation process.
- If the Bidder withdraws their proposal post signing of the LoA till the time project is completed.

2.9 Bid Processing Fees

2.9.1 All Bidders are required to pay INR 11800/- including GST in favour of the Employer through online payment. The Bid Processing Fee is Non-Refundable. Non-submission of Bid Processing fee along with the Technical Proposal will be treated as non-responsive bid.

2.10 Pre-Bid Meeting:

2.10.1 Pre-Bid meeting will be held on 15/04/2023, at Navyug Market, Ghaziabad Nagar Nigam, interested bidders wanting to attend meeting through online mode can drop a mail to gzb.nagar.nigam@gmail.com and CC to nsagzb808@gmail.com at least 3 days prior to pre-bid meeting date for getting the meeting link/invite

2.11 Submission, Receipt and Opening of Proposal

- 2.11.1 The original proposal, both technical and Financial Proposals shall contain no interlineations or overwriting, except as necessary to correct errors made by the Bidders themselves. The person who signed the proposal must initial such corrections. Submission letters for both Technical and Financial Proposals should respectively be in the format of TECH-1, and FIN-1.
- 2.11.2 An authorized representative of the Bidders shall initial all pages of the original Technical and Financial Proposals. The authorization shall be in the form of a written power of attorney accompanying the Proposal or in any other form demonstrating that the representative has been dully authorized to sign.
- 2.11.3 Applicant (authorized signatory) shall submit its offer for preliminary qualification, technical and financial proposal e-procurement system. However, Tender Document Fees, and Earnest Money Deposit (EMD) should be deposited as per details provided in the bid document. The bid document complete in all respect is to be submitted on or before the time of last date of submission of bid through e-procurement system. The Authority will not be responsible for delay in submission due to any reason.
- 2.11.4 The Bid shall be typed or written in indelible ink and signed by the authorized signatory of the Applicant who shall also initial each page/digital sign, in blue ink/colour. All the alterations, omissions, additions or any other amendments made to the Bid shall be initialled by the person(s) signing the Bid. Bidder shall submit their offer only in online electronic format both for technical and financial proposal and all documents should be digitally signed. However, scan /screenshot of transfer of Proposal fees, EMD and all original papers related to Bank guarantee, power of attorney etc. as mentioned in Table and should be uploaded along with the technical bid.

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2.5 Preparation of Proposals

- 2.5.1 The Proposal as well as all related correspondence exchanged by the Bidders and the Employer, shall be written in English language, unless specified otherwise.
- 2.5.2 In preparing their Proposal, Bidders are expected to examine in detail the documents comprising the RFP. Material deficiencies in providing the information requested may result in rejection of a Proposal.
- 2.5.3 While preparing the Technical Proposal, Bidders must give particular attention to the following:
- 2.5.4 Depending on the nature of the Assignment/ job, Bidders are required to submit a Technical Proposal (TP) in forms provided in the RFP. Submission of non-responsive Technical Proposal will result in the Proposal being deemed ineligible. Form Tech – I is a sample letter of technical proposal which is to be submitted along with the technical proposal.
- 2.5.5 The **Technical Proposal** shall not include any financial information. A Technical Proposal containing financial information may be declared as non-responsive.
- 2.5.6 **Financial Proposals:** The Financial Proposal shall be prepared using the attached Standard Forms. It shall list all costs associated with the Assignment/ job. If appropriate, these costs should be broken down by activity and timeline, if appropriate, into foreign (if applicable) and domestic expenditures. The financial proposal shall not include any conditions attached to it and any such conditional financial proposal shall be rejected summarily.

2.6 Taxes

2.7 All other taxes/levies/octrois/income tax/personal tax (including GST) etc. to be borne by the Bidder under the contract.

2.7.1 Bidders must express the price of their Assignment/ job in India Rupees (₹).

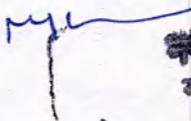
2.8 Earnest Money Deposit (EMD) and Bid Processing Fees

2.8.1 Earnest Money Deposit

- The Applicant shall deposit an **Earnest Money Deposit (EMD) of INR 15 lacs** in accordance with the provisions of this RFP document. The Applicant has to provide the EMD in favour of Account Officer Nagar Nigam Ghaziabad”.
- Proposals not accompanied by EMD shall be rejected as non-responsive.
- No interest shall be payable by the Employer for the sum deposited as earnest money deposit.
- The EMD of the unsuccessful Bidders would be returned within 30 days after acceptance of LoA by the selected Bidder.

2.8.2 The EMD shall be forfeited by the Employer in the following events:

- If Proposal is withdrawn during the validity period or any extension agreed by the Bidder thereof.


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Rules 2016) or amendments thereafter with respect to baseline site parameters.

- ii. The Operator has to make all the necessary arrangement for 24x7 online monitoring of environmental standards to the extent possible.
- iii. The Operator may appoint a Professional Consultant/ Company approved by MoEF / NABET to achieve these standards.

Hazardous waste:

The Operator shall segregate any Hazardous waste [as defined in Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules, 2008] if existing inside the site and separately earmarked. It is the Operator responsibility to dispose of the same at OSPCB's approved sites in accordance with Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules, 2008 or amendments thereafter.

- iv. It is the sole responsibility of the operator to abate the odor and fire nuisance on site. The Operator has to use enzyme/herbal based products which shall help to abate the odor and flies nuisance. Necessary fire fighting vehicles shall be arranged to abate the fire nuisance. However, in case of major fire incidence, ULB may assist by providing fire fighting vehicles according to availability at that time. Necessary safety gears shall be provided by the operator to all staff working as per the good industry practice.
- v. The Operator shall ensure that material which is to be transported for disposal after scientific processing is not dumped at < Dumpsite Location> Dumping Ground. They can make necessary arrangement like fencing or any other suitable arrangement as directed by ULB authorities to prevent such events.

2.3 Clarification and Amendment of RFP Documents

- 2.3.1 Bidders may request a clarification on any clause of the RFP documents. Any request for clarification must be sent by standard electronic means to the Employer's address indicated and within the timeframe mentioned in the Data Sheet. Should the Employer deem it necessary to amend the RFP as a result of a clarification, it shall do so following the procedure under para. 2.3.2 below.
- 2.3.2 At any time before the submission of Proposals, the Employer may amend the RFP by issuing an addendum by standard electronic means. The addendum shall be sent to all Bidders as per stipulated timeframe mentioned in the Data Sheet and will be binding on them. Bidders shall acknowledge receipt of all amendments. To give Bidders reasonable time in which to take an amendment into account in their Proposals the Employer may, if the amendment is substantial, extend the deadline for the submission of Proposals.

2.4 Proposal Validity

- 2.4.1 Proposal validity to be set at 180 Days from the date of submission of the bid.

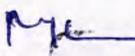
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In a study published in 2006, the World Bank had found that the solid waste management expenditure of urban local bodies of India is only about 15 to 25 per cent of the total municipal revenue expenditure. Of this, collection and transportation accounts for anywhere between 45 and 90 per cent (for large and mid-sized cities with population greater than 5 lakh) and very little is earmarked for processing, treatment and scientific disposal.

As regards the large accumulated mixed waste at landfill sites which are used as dumpsites, bioremediation provides a low-cost and expedient solution to the problem of the large accumulated mixed waste at landfill sites. Bio-remediation further makes it possible to extract resources from the stabilised waste and reuse the same productively, while at the same time releasing space for other uses at the landfill sites. It works both towards financial and environmental sustainability.

- 2.2.1 The Employer will select the Bidder meeting basic eligibility criteria as mentioned in document and in accordance with the method of selection specified in the document.
- 2.2.2 Detailed scope of the assignment/ job has been described in the document.
- 2.2.3 The date, time and address for submission of the proposals has been given.
- 2.2.4 Bidders should familiarize themselves with Local conditions and take them into account in preparing their Proposals. To obtain first-hand information on the Assignment/ job and Local conditions, the Bidder may undertake physical survey of the ULB/s.
- 2.2.5 The Employer will provide at no cost to the Bidders the inputs and facilities specified in the document, assist the Bidders in obtaining licenses and permits needed to carry out the Assignment/ job, and make available relevant project data and reports.
- 2.2.6 Bidders shall bear all costs associated with the preparation and submission of their proposals. The Employer is not bound to accept any proposal and reserves the right to annul the selection process at any time prior to Contract award, without thereby incurring any liability to the Bidders.
- 2.2.7 Environmental Standards :
- i. The Operator has to follow the Environmental Standards as mentioned below
 - a) Air Quality Monitoring: As per Solid Waste Management Rules 2016 (SWM Rules 2016) or amendments thereafter with respect to baseline site parameters.
 - b) Noise Monitoring – As per Noise Pollution Rules 2000 or amendments thereafter with respect to baseline site parameters.
 - c) Leachate Treatment must be made as per Solid Waste Management Rules 2016 (SWM Rules 2016), CPCB 2019 Guidelines on Legacy Waste or amendments thereafter with respect to baseline site parameters.
 - d) Odor Monitoring — As per CPCB guidelines ‘odor Pollution & Its Control May 2008’ or amendments thereafter with respect to baseline site parameters.
 - e) Water Quality Monitoring - As per Solid Waste Management Rules 2016 (SWM Rules 2016) or amendments thereafter with respect to baseline site parameters.
 - f) Aggregate Disposal- As per Solid Waste Management Rules 2016 (SWM


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emissions. It is probably the quickest and the most frugal way possible to solve problem of legacy of waste accumulated at dumpsites

Bioremediation is a simple mechanical-biological treatment which aerobically composts organic fraction of mixed waste and offers a low cost solution to reduce the climate impact of landfill sites – the highest GHG generator in the waste sector. It requires aeration of mixed waste in old dumps by formation of wind-rows and spraying microbial culture that rapidly degrades organic matter aerobically, thus ceasing the production of methane and leachate to nearly zero. For proper aeration, the wind-rows are mechanically turned weekly multiple times, which ensures faster degeneration. It has been demonstrated to reduce the volume of waste by up to 40 per cent, after 4 turnings. The potential of methane gas generation is theoretically brought down by 90 per cent, compared to merely dumping an equivalent quantity of waste unprocessed (Bogner et al, 2007). Mechanical-biological methods could also be used in combination in upgrading landfill sites (ISWA 2009).

After bioremediation, the stabilised waste can be screened for recovery of organic manure, recyclables (polymers, metals, etc.) and high-calorie materials (textiles, timber, coir, etc.). The remaining non-compostable, non-recyclable and low-calorie materials (mostly inert) can be used as fillers material. The screened material of high-calorific value can be processed into refuse derived fuel (RDF) for incineration with energy recovery or co-combustion in high temperature industrial furnaces like cement kilns, boilers, etc.

Landfill sites currently maybe the largest GHG emitter in the waste sector but reducing their emissions and subsequent climate impact is relatively easy to achieve. Bioremediation is an excellent interim solution to quickly save on emissions from such sites, while the systems falling earlier in the hierarchy of waste management are improved, i.e. source segregation and resource recovery. The main channels through which solid waste management affects GHG emissions are listed below:

- (i) Consumption without regard for resource conservation creates excess demand for extraction and manufacturing of goods from virgin materials, all of which contributes to greenhouse gas emissions in varying amounts at different stages of production and consumption.
- (ii) Mixing wet waste with dry waste at the source of generation results in several negative downstream effects.
- (iii) The increased volume of unprocessed mixed waste adds to transport demand which in turn increases fossil fuel consumption for collection and transportation of waste from the source of generation to the landfill sites.
- (iv) When the mixed waste (sometimes as high as 70%) is dumped at landfill sites, it releases methane gas that is generated from anaerobic decomposition of biodegradable waste present in the waste.
- (v) Leachate oozing out of decomposing biodegradable matter releases nitrous oxide.
- (vi) Any act of burning of waste releases carbon dioxide and other harmful gases.

Of all these activities, the International Solid Waste Alliance (2009) estimates that emissions from landfill sites, due to decomposition of biodegradable waste, are the biggest source of GHG emissions from waste sector globally.

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Section 2: Instructions to Bidders

Part I Standard

2.1 Definitions

- a) **"Addendum"** means the clarification issued against the Bidder's query placed before the employer in writing It may be released in form of addendum or corrigendum.
- b) **"Employer"** means the Authority who have invited the bids for the services and/ or with which the selected Bidder signs the Contract for the Services and to which the selected Bidder shall provide services as per the terms and conditions and TOR of the contract.
- c) **"Bidder"** means any entity or associations of person or organization /companies / firms who have been requested to submit their proposals that may provide or provides the Services to the Employer under the Contract.
- d) **"Contract"** means the Contract signed by the Parties and all the attached documents listed in its Clause, that is the General Conditions (GC), the project Specific Conditions (SC), and the Appendices.
- e) **"Project specific information"** means such part of the Instructions to Bidders used to reflect specific project and assignment conditions.
- f) **"Day"** means calendar day.
- g) **"Government"** means (Authority) Ghaziabad Nagar Nigam.
- h) **"Instructions to Bidders"** means the document which provides Bidders with all information needed to prepare their proposals.
- i) **"Lol"** means the Letter of Intent being sent by the Employer to the Bidders.
- j) **"Personnel"** means professionals and support staff provided by the Bidder or by any Sub Bidder and assigned to perform the Services or any part thereof; "Foreign Personnel" means such professionals and support staff who at the time of being so provided had their domicile outside the Government's country; "Domestic Personnel" means such professionals and support staff who at the time of being so provided had their domicile in India.
- k) **"Proposal"** means the Technical Proposal and the Financial Proposal.
- l) **"RFP"** means the Request for Proposal prepared by the Employer for the selection of Bidders, based on the SRFP.
- m) **"Assignment / job"** means the work to be performed by the Bidder pursuant to the Contract.
- n) **"Terms of Reference" (ToR)** means the document included in the RFP as Section 5 which explains the objectives, scope of work, activities, tasks to be performed, respective responsibilities of the Employer and the Bidder, and expected results and deliverables of the job.
- o) **"GoUP"** means Government of Uttar Pradesh.
- p) **SBM** means Swachh Bharat Mission
- q) **"Concessionaire"** Selected Bidder (the holder of a concession or grant)
- r) **Ghaziabad** means Ghaziabad Nagar Nigam or Nagar Nigam Ghaziabad

2.2 Details

The composition of mixed waste dumped at old sites is more or less similar across the State. Bio-remediating the dump site is important to reclaim the space and also to save on GHG

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कार्यालय नगर निगम गाजियाबाद ।

पत्रांक: 585 / स्वा0 / 2023-24

दिनांक: 02/09/23

कार्यादेश

M/s Rollz India Waste Management Pvt Ltd. &
Geron Engineering Pvt. Ltd

विषय- Selection of Bidder for the Treatment of Legacy Waste through Bio-Remediation, Resource Recovery and Scientific Rejects Disposal at Bhikkanpur Pipeline road, Ghaziabad Nagar Nigam.के सम्बन्ध में।

उपरोक्त विषयक अवगत कराना है कि उक्त कार्य कराये जाने हेतु समाचार-पत्रों में विज्ञापन प्रकाशित कराकर दिनांक 22.04.2023 को निविदा आमंत्रित की गयी। प्राप्त निविदाओं के तकनीकी परीक्षण के उपरान्त दिनांक 30.05.2023 को वित्तीय बिड खोली गयी। जिसमें प्रथम न्यूनतम दर अंकन रू0 478/- प्रति टन की दर प्राप्त हुई थी। प्राप्त दरों पर नेगोसिएशन करने के उपरान्त आपके द्वारा उक्त दरों पर कार्य करने हेतु सहमति पत्र प्रस्तुत किया गया।

उक्त प्राप्त दरों की स्वच्छ भारत मिशन नगरीय के अन्तर्गत गठित राज्य स्तरीय उच्चाधिकार संचालन समिति की 13वीं बैठक दिनांक 06.03.2023 के द्वारा लिये गये निर्णय के अनुपालन में इस कार्यालय के पत्र संख्या: 283/न0आ0/2023-24 दिनांक 17.06.2023 के द्वारा राज्य मिशन निदेशक, स्वच्छ भारत मिशन-नगरीय, राज्य मिशन निदेशालय, उ0प्र0 लखनऊ को पत्र प्रेषित किया गया था। जिसके क्रम में राज्य मिशन निदेशक के पत्र संख्या-पीएमयू/8883/547/2022 दिनांक 18 अगस्त, 2023 के द्वारा 478/- रू0 प्रतिटन की दर से 26900 टन लिगेसी वेस्ट की मात्रा का अंकन रू0 12,85,82,000/- की समस्त कर सहित स्वीकृति प्रदान कर दी गयी है।

उपरोक्त के क्रम में राज्य मिशन निदेशक के पत्र संख्या-पीएमयू/7357/547/2022 दिनांक 10.01.2023 (छायाप्रति संलग्न) के कार्यवृत्त नवम् बैठक 1.0 में निर्दिष्ट निर्देशों का शत-प्रतिशत कड़ाई से अनुपालन कराया जाना सुनिश्चित करें।

अतः आप उपरोक्तानुसार इस पत्र प्राप्ति के एक सप्ताह के अन्दर अंकन रू0 65,00,000/- की एफ0डी0आर0/बी0जी0 लेखाधिकारी के नाम बन्धक कर जमा कराते हुये निर्धारित मानक स्टाम्प पेपर पर अनुबन्ध की कार्यवाही आर0एफ0पी0 में अंकित निर्धारित शर्तों के अनुसार निष्पादित कराकर कार्य कराया जाना सुनिश्चित करें।

संलग्नक-यथोक्त।

प्रतिलिपि-

1. नगर आयुक्त महोदय को सादर सूचनार्थ प्रेषित।
2. अपर नगर आयुक्त/प्रभारी स्वास्थ्य महोदय को सादर सूचनार्थ प्रेषित।
3. श्री ओमपाल सिंह, जेड0एस0ओ0/श्री पवन कुमार, मुख्य सफाई एवं खाद्य निरीक्षक को इस निर्देश के साथ कि कार्यवृत्त दिनांक 10.01.2023 में निर्दिष्ट निर्देशों का शत-प्रतिशत कड़ाई से अनुपालन कराया जाना सुनिश्चित करें।
4. लिपिक, एस0डब्लू0एम0/एस0बी0एम0 को आ0का0हेतु।

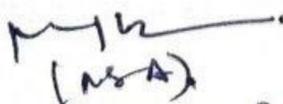
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Receipt
Date

15/9/23

CONTRACT AGREEMENT**Between****GHAZIABAD NAGAR NIGAM****and****ROLLZ INDIA WASTE MANAGEMENT PRIVATE LIMITED IN JV WITH GERON
ENGINEERING PVT LTD****Dated: 30th September 2023**


(NSA)
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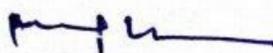


NOW THEREFORE the parties hereto hereby agree as follows:

1. The following documents attached hereto shall be deemed to form an integral part of this Contract:
 - a) Letter of Award no 585/Health/2023-24 dated 2nd September 2023
 - b) Tender documents including RFP, Corrigendum etc.
 - c) The General Conditions of Contract;
 - d) Approved DPR for Bioremediation of Legacy Waste and disposal of Rejects.
2. The mutual rights and obligations of the Employer and the Bidder shall be as set forth in the Contract, in particular:
 - (a) the Bidders shall carry out the Services in accordance with the provisions of the Contract; and
 - (b) the Employer shall make payments to the Bidders in accordance with the provisions of the Contract and report of 3rd party appointed (if, any) for monitoring and control.

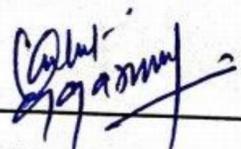
IN WITNESS WHEREOF, the Parties hereto have caused this Contract to be signed in their respective names as of the day and year first above written.

For and on behalf of *Ghaziabad Nagar Nigam*



 [Authorized Representative] (NS)
 नगर स्वास्थ्य अधिकारी
 गाजियाबाद नगर निगम

For and on behalf of *Rollz India Waste Management Pvt Ltd in JV with Geron Engineering Pvt Ltd*



 [Authorized Representative] 

Guidelines for Disposal of Legacy Waste (Old Municipal Solid Waste)



CENTRAL POLLUTION CONTROL BOARD

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

‘Parivesh Bhawan’ C.B.D. Cum-Office Complex,

East Arjun Nagar, Shahdara, Delhi-110032

(February, 2019)

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BACKGROUND

Until the 1970s, there were few dumpsites exists in India. Since Vedic times, household discards mostly food waste, which went back to the soil along with stable wastes via compost pits. Urban discards were collected by farmers, they converts it into compost and utilize it in farming and bring their produce to town/city. With the introduction of plastic in the seventies the composition of city waste started changing and people started discarded plastic along with kitchen wastes. These plastics blanketed the fields and made them infertile, as less rain could enter and few seeds could germinated, So farmers stopped collecting urban mixed wastes and cities were left with an unexpected burden. Initially most towns and cities in India started dumping all this unwanted waste outside city limits, along roadsides which are unsupervised and where dumped in no-mans-land. Uncontrolled and continuous dumping of municipal solid waste lead to mountains of legacy waste .

After three decades of neglection these open dumps have grown larger and higher, becoming point sources of pollution. Waste rotting in these airless heaps produces leachate, a foul dark liquid that kills vegetation around dumps and irreversibly pollutes groundwater due to leachate generation. The heaps of garbage also produce methane, a greenhouse gas that causes 21 times more global warming than carbon dioxide. Besides, contaminating air quality, which further, worsens due to frequent fire incidences.

Recently, Hon'ble NGT alarmed that due to incremental growth of Municipal Solid Waste (MSW), these MSW dumps are converting into virtual mountains. Hon'ble NGT further directed that every city/town should adhere to clause 'J' of Schedule-I of SWM Rules, 2016. Finally, Hon'ble NGT directed CPCB to propose Standard Operating Processing (SOP) for implementation of Bio-mining and Bio-remediation of legacy solid waste.

These guidelines are very useful to Municipal Corporations, Councils & Waste Management Agencies. The Contribution given by Mrs. Almitra Patel (Member, Hon'ble Supreme Court Committee for SWM & National Expert, Swachh Bharat Mission), Shri Snehal Jariwala (PRO) & Sh. Asad Warsi (Consultant, Indore Municipal Corporation) are highly appreciated. These guidelines have been edited by Dr. S.K. Nigam, Addl. Director (CPCB) and compiled by Ms. Gudiya Jaiswal (SA).

1.0 Present Status of Legacy Waste & its impact on Environment:

There are two major challenges of solid waste management in our cities/towns:

- (1) managing the continuous flow of solid waste on a daily basis, and
- (2) dealing with the legacy of neglect which has resulted in garbage heaps having been built up at dumpsites that were meant for waste processing and landfills.

The sites for landfills were originally located outside of the cities, but as the cities have expanded the dumpsites are now almost in the cities. Delhi's open dumps at Ghazipur (69 metres high), Okhla (55 metres high) and Bhalswa (56 metres high), for example, are all much higher than the permissible height limit of up to 20 metres, and way past their capacity of holding waste for which they were set up. It is estimated that more than 10,000 hectares of urban land is locked in these dumpsites in India. In the absence of exposure to air, the high-rises of rotting mixed waste on these sites generate methane (a greenhouse gas) and other landfill gases, which contribute to global warming. They also produce leachate (liquid generated by airless waste) which pollutes groundwater. Frequent outbreaks of fire at the dumpsites lead to air pollution. What is more, the presence of these dumps encourages further dumping at these sites, even though they are filled beyond capacity to take any more waste. Many municipal authorities across the country are opting for "capping" as a solution to the legacy of mixed waste, which is not the first option in the order of priority for environmentally save legacy waste management as per **Clause 'J' of Schedule-I** of the SWM Rules, 2016.



The methane produced at solid waste disposal sites contributes approximately 3 to 4 percent to the annual global anthropogenic greenhouse gas emissions (IPCC, 2001). Clearing these mounds of years-old waste, called legacy waste, is the easiest and fastest way to reduce our national emissions, and save surrounding villages from polluted water sources, smoke, , flies and stench.

Over the years, generation of dry waste, especially plastic waste and packaging, has increased at a tremendous rate. This is because of:

- i. Rapid increase in e-commerce industry from shopping to ordering food.
- ii. Many brand owners have shifted from larger SKU (Stock Keeping Unit) size to smaller SKU size due to changing market scenario.
- iii. Shifting of public consumer preferences to daily use plastic products like bottles, food containers, etc.
- iv. GST on recyclables making it uneconomical for waste-pickers and kabadiwalas to collect low-value waste.

These reasons have contributed to ever-growing dumping grounds. Some waste materials may or may not be recyclable and others might be too small to recover. Since 2016, MoEF & CC has transferred this downstream responsibility of collection and sustainable end disposal for plastic packaging through EPR as per Plastic Waste Management Rules, 2016. Now it is time to introduce upstream EPR also. The downstream EPR majorly focuses on managing a products disposal whereas upstream EPR stimulates product design for environment, reducing use of resources and reducing its adverse environmental and health impacts via use of materials that can be disposed of in a sustainable manner. Under upstream EPR, Producers, Importers and Brand Owners will have to Eco-Design their product packaging and design it considering its collection, recovery and end-of-life sustainable disposal to avoid formation of future legacy wastes. This means that the packaging should be made of eco-friendly material or can be recovered easily and have an established value chain to reduce the burden on ever-growing dumpsites.

Local Bodies also need to ensure that the upcoming infrastructure is designed to handle and store unmixed wastes separately. Government bodies should also create infrastructure for collection, handling, sorting, processing and sustainable end disposal infrastructure for all types of waste.

2.0 Key Definitions:

Some of the important keywords are explained below:

- i. **"aerobic composting"** means a controlled process involving microbial decomposition of organic matter in the presence of oxygen;
- ii. **"biodegradable waste"** means any organic material that can be degraded by micro-organisms into simpler stable compounds;
- iii. **"combustible waste"** means non-biodegradable, non-recyclable, non-reusable, non-hazardous solid waste having minimum calorific value exceeding 1500 kcal/kg and excluding chlorinated materials like PVC plastic, woody waste etc.;
- iv. **"composting"** means a controlled process involving microbial decomposition of organic matter;
- v. **"contractor"** means a person or agency that undertakes a contract to provide materials or labor to perform a service or do a job for a service-providing authority;
- vi. **"co-processing"** means use of combustible waste as raw material or as a source of energy or both to replace or supplement fossil fuels in industrial processes;
- vii. **"disposal"** means the final and safe disposal of post -processed residual solid waste and inert street sweepings and silt from surface drains on land as specified in Schedule I of SWM Rules, 2016 to prevent contamination of ground water, surface water, ambient air and attraction of animals or birds;
- viii. **"dry waste"** means waste other than bio-degradable waste and inerts and includes recyclable and non-recyclable waste, combustible waste and sanitary napkin and diapers, etc.;
- ix. **"dump sites"** means a land utilized by local body for open dumping to dispose of untreated solid waste without following the principles of sanitary land filling;
- x. **"extended producer responsibility" (EPR)** means responsibility of any producer and/or brand manager of packaging products such as plastic, tin, glass and corrugated boxes, etc., for environmentally sound management, till end-of-life of the packaging products;
- xi. **"inerts"** means wastes which are not bio-degradable, recyclable or combustible and include debris, construction and demolition wastes, street sweepings or dust and silt removed from the surface drains;
- xii. **"informal waste collector"** includes individuals, associations, waste traders or agency involved in collection, sorting, sale and purchase of waste and/or recyclable materials without valid authorization from respective urban local body or pollution control board to comply with guidelines issued by MoEF&CC under Environment (Protection) Act for waste handling, management, and disposal;

- xiii. **"leachate"** means the dark smelly liquid that seeps through or is generated within solid waste and has extracts of dissolved or suspended material from it;
- xiv. **"local body"** for the purpose of these rules means and includes the municipal corporation, nagar nigam, municipal council, nagarpalika, nagar palika parishad, municipal board, nagar panchayat and town panchayat, census towns, notified areas and notified industrial townships by whatever name they are called in different States and union territories in India;
- xv. **"materials recovery facility" (MRF, pronounced Merf)** means a facility where non-compostable solid waste can be temporarily stored by the local body or any other entity mentioned in rule 2 or any person or agency authorized by any of them to facilitate segregation, sorting, recycling and/or recovery of recyclables from various components of waste by authorized informal sector of waste pickers, informal recyclers or any other work force engaged by the local body or entity mentioned in rule 2 for the purpose before the waste is delivered or taken up for its processing or disposal;
- xvi. **"non-biodegradable waste"** means any waste that cannot be degraded by microorganisms into simpler stable compounds;
- xvii. **"processing"** means any scientific process by which segregated solid waste is handled for the purpose of reuse, recycling or transformation into new products;
- xviii. **"recycling"** means the process of transforming segregated non-biodegradable, recyclable solid waste into new material or product or as raw material for producing new products which may or may not be similar to the original products;
- xix. **"refuse derived fuel"(RDF)** means fuel derived from the combustible waste fraction of solid waste like plastic, woody waste or organic waste, other than chlorinated materials, in the form of pellets or fluff produced by drying, shredding and compacting of solid waste;
- xx. **"residual solid waste"** means and includes the waste and rejects from solid waste processing facilities which are not suitable for recycling or further processing or use;
- xxi. **"sanitary land filling "** means the final and safe disposal of residual solid waste and inert wastes on land in a facility designed with protective measures against pollution of ground water, surface water and fugitive air dust, wind-blown litter, bad odor, fire hazard, animal menace, bird menace, pests or rodents, greenhouse gas emissions, persistent organic pollutants, slope instability and erosion;
- xxii. **"segregation"** means the unmixed and separate storage and management of various components of solid waste namely biodegradable wastes including garden or agriculture and dairy waste, non-biodegradable wastes including recyclable waste, non-recyclable combustible waste, sanitary waste and non-recyclable inert waste, domestic hazardous wastes, and construction and demolition wastes;
- xxiii. **"solid waste"** means and includes solid or semi-solid domestic waste, sanitary

waste, commercial waste, institutional waste, catering and market waste and other non-residential wastes, street sweepings, silt removed or collected from the surface drains, horticulture waste, agriculture and dairy waste, treated bio-medical waste excluding hospital or industrial waste, e-waste, battery waste, hazardous and radioactive waste generated in the area under the local authorities and other entities mentioned in rule 2;

- xxiv. **"sorting"** means separating various components and categories of recyclables such as paper, plastic, card-board, metal, glass, etc., from mixed waste as may be appropriate to facilitate recycling and recovery;
- xxv. **"stabilizing"** means the biological decomposition of biodegradable wastes to a stable state where it generates no leachate or offensive odors/gases or fire and is fit for application to farm land, soil erosion control and soil remediation;
- xxvi. **"transportation"** means conveyance of solid waste, either treated, partly treated or untreated from a location to another location in an environmentally sound manner through specially designed and covered transport system so as to prevent foul odor, littering, leachate dripping and unsightly conditions;
- xxvii. **"treatment"** means the method, technique or process designed to modify physical, chemical or biological characteristics or composition of any waste so as to reduce its volume and potential to cause harm;
- xxviii. **"waste hierarchy"** means the priority order in which the solid waste should be managed by giving emphasis to waste prevention, reduction, reuse, recycling, recovery and disposal, with prevention being the most preferred option and disposal at the landfill being the least preferred;
- xxix. **"waste picker"** means a person or groups of persons informally engaged in collection and recovery of reusable and/or recyclable solid waste from the source of waste generation or from streets, bins, material recovery facilities, processing and waste disposal facilities for sale to recyclers directly or through intermediaries to earn their livelihood.

3.0 Provisions of SWM Rules, 2016:

The Government of India has notified the Solid Waste Management Rules (SWM) Rules, 2016 for proper and effective management of municipal solid waste (MSW). Under the SWM Rules, 2016, following provisions have been made to manage old dumps of MSW.

3.1 Rule 15 - Duties and responsibilities of local authorities and village Panchayats of census towns and urban agglomerations. - The local authorities and Panchayats shall,-

(zj) investigate and analyze all old open dumpsites and existing operational dumpsites for their potential of bio-mining and bio-remediation and wheresoever feasible, take necessary actions to bio-mine or bio-remediate the sites;

(zk) in absence of the potential of bio-mining and bio-remediation of dumpsite, it shall be scientifically capped as per landfill capping norms to prevent further damage to the environment.

The by-laws shall apply to every urban local body, outgrowths in urban agglomerations, Cantonment boards, Panchayat, Industrial and Institutional Townships, railways and defence establishments

Further, provisions under Schedule I (j) are given below:-

3.2 Schedule-I (j) - Closure and Rehabilitation of Old Dumps- Solid waste dumps which have reached their full capacity or those which will not receive additional waste after setting up of new and properly designed landfills should be closed and rehabilitated by examining the following options:

- (i) Reduction of waste by bio-mining and waste processing followed by placement of residues in new landfills or capping as in (ii) below.
- (ii) Capping with solid waste cover or solid waste cover enhanced with geomembrane to enable collection and flaring / utilisation of greenhouse gases.
- (iii) Capping as in (ii) above with additional measures (in alluvial and other coarse grained soils) such as cut-off walls and extraction wells for pumping and treating contaminated ground water.
- (iv) Any other method suitable for reducing environmental impact to acceptable level.

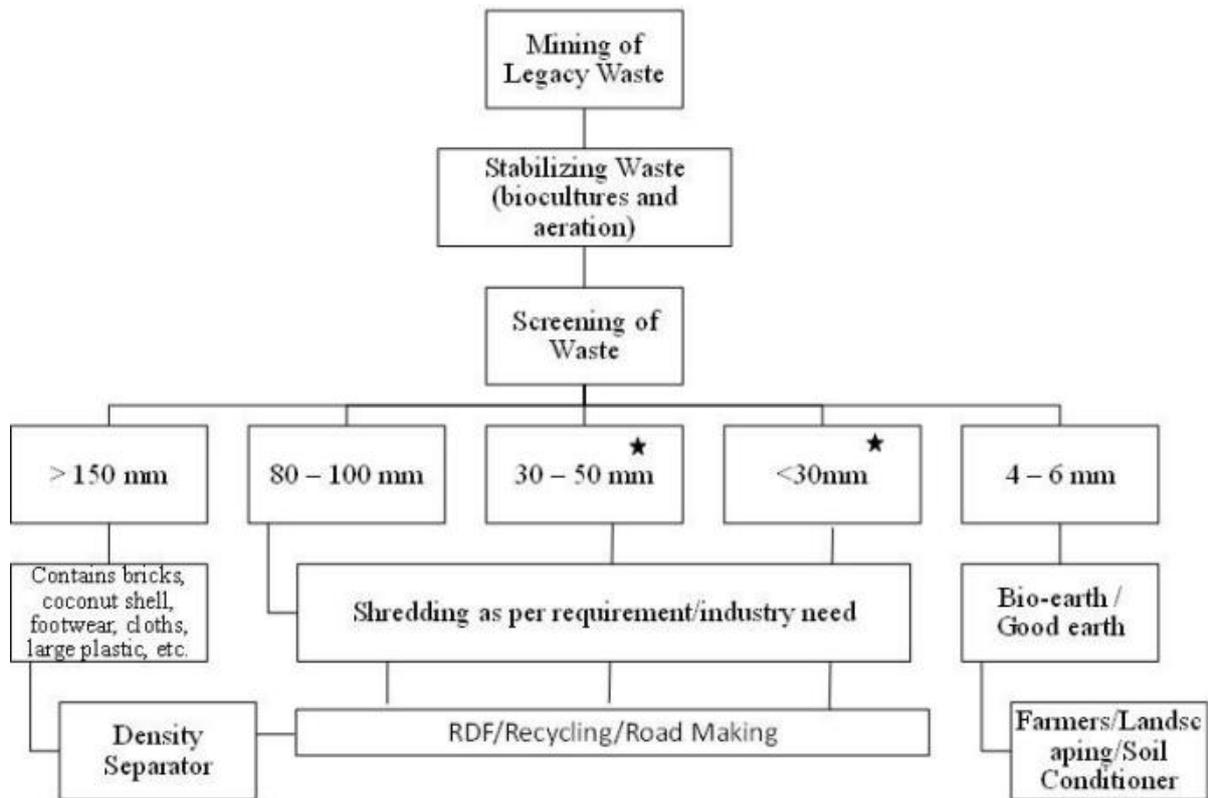
4.0 Methodology:

The treatment & disposal of Legacy MSW can be done by Bio-remediation and Bio-mining. A total station survey or drone mapping of any landfill/dumping site must be done prior to start of the project. Hence, it is suggested to ensure precursor study with history of the site, compositional analysis of waste. Site environment parameters such as baseline study of heavy metals in surface and subsurface soils and water, rainfall, soil type, surface hydrology, topography, wind direction etc. shall be studied before and after bio-mining. Periodic study should also to be carried out after completion of biomining to check for any adverse effects in the surrounding area.

4.1 Bio-remediation & Bio-mining of Old Municipal Dumpsites:

It refers to the excavation of old dumped waste and make windrow of legacy waste thereafter stabilization of the waste through bio-remediation i.e. exposure of all the waste to air along with use of composting bio-cultures, i.e. screening of the stabilized waste to recover all

valuable resources (like organic fines, bricks, stones, plastics, metals, clothes, rags etc.) followed by its sustainable management through recycling, co-processing, road making etc.



★ In Case of RDF (With Size Up to 50mm) shredding is not required

Fig. 1. Overview of Bio-remediation and Bio-mining of Legacy Waste

The first step is to excavate legacy waste, loosen it and make windrows so as the leachate can be dried of through solar exposure and all the entrapped methane is removed from the heap. All biodegradable waste, like discarded food, fruit, flower and garden waste, needs air to decompose it in an odourless way without producing leachate. So the first step in stabilizing and bringing down airless legacy waste is to expose as much of it as possible to air (Fig. 1).

Addition of composting bio-cultures speeds up decomposition and rapidly creates biological heat within the waste that helps to dry it out and reduce its volume by 35-40%. This happens through loss of moisture and by decomposition of some of the aerated waste to carbon dioxide and water vapour. This is called **bio-remediation** and makes the waste dry enough for screening. Waste is called stabilized when there is no more generation of heat or landfill gas or leachate, and seeds are able to germinate in it.

It means the screening of such stabilized waste into different size fractions that can be usefully used off-site or disposed of without affecting the environment. Screen sizes commonly used are one or more of the following: 150 mm, 80 to 100 mm, 24 to 50mm, 12-16 mm and 4-6 mm. The finest fraction is called bio-earth or good earth. It contains a mixture of humus-rich organics which improve soil fertility along with a high proportion of soil or sand, which is why it cannot meet FCO standards for compost. The coarsest fraction contains bricks, stones, coconut shells, footwear, cloth and larger plastics. Density separation helps recover combustibles which can be used (usually up to 5-10%) as fuel replacement after supplying it to customer requirements.

The lighter mid-fractions are mostly plastics and can be shredded as per industry requirement for use in bitumen hot-mix plants to make so-called Plastic Roads or as refuse derived fuel



for co-processing in cement kilns. Fractions up to 50mm do not require shredding for use as RDF. The heavier mid-fractions are mostly stony inert which can be used in the lowest layers of road-making or plinth-filling or in low-lying areas, but should not contain more than 3-5%



plastics by weight. Less than 10% of the original waste remains as totally unusable residual

rejects and may remain onsite, either in a small heap or spread to raise the ground level by a couple of meters.

The land which was hosting waste dumps is now fully recovered for alternate uses. Bio-mining and Bio-remediation processes should be adopted as early as possible to ensure holistic solid waste management.

4.1.2 Process of Bio-remediation and Bio-mining:

Exposing the legacy waste to air to stabilize it has been done since 1998 in many ways. Almost all of them involve forming the waste into long low heaps of about 2 meter height called wind-rows, to get maximum surface area to volume. Repeated turning is necessary to ensure that the innermost waste in wind-rows also gets exposed to air. Usually 3-4 turnings of legacy waste are necessary to stabilize it.

1. Use a tractor-tiller to repeatedly loosen the topmost 150 mm layer of legacy waste. Mist-spray the waste lightly with bio-cultures to control odour and get the decomposing microbes dispersed into the waste. Hand-pick out large objects like rocks or coconut-shells or long pieces of cloth. Form the waste into wind-rows using a Bob-cat or JCB or similar earth-moving equipment. Turn these wind-rows every 5 days. After 2-3 weeks when the heaps are free-flowing enough for screening, move the material to multi-deck vibrating screens or to trommels (rotating cylinders with different size perforations) to get fractions of different size and weight.

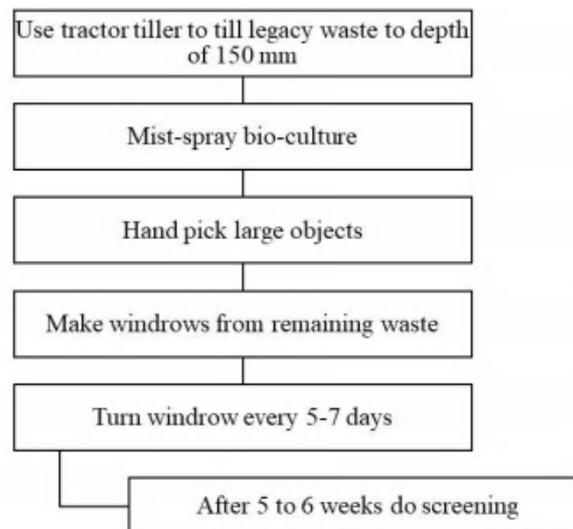


Fig. 2. Schematic representation of Bio-mining through Tractor Tiller by Windrows

2. Use a JCB to dig 2-2.5 meter deep trenches downwards from the top of a legacy waste heap at 1.5 to 2 meter intervals. This is a rapid and cost-effective way to slice the uppermost layer into in-situ wind-rows. Mist-spray the sides of the

trenches to get microbes to reach exposed waste surfaces. Bring down these slices to form terraces and turn one aerated windrow onto another weekly before repeating the process until almost ground level is reached. Start screening when waste moisture is low enough.

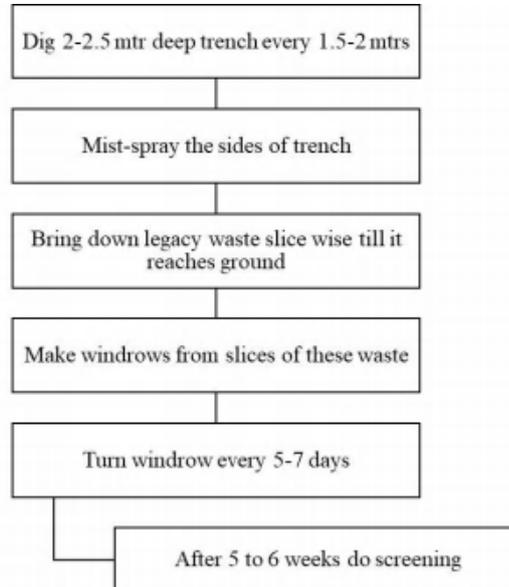


Fig. 3. Schematic representation of Bio-mining through Trench Method

- Use a JCB to lift legacy waste off the top of a heap and drop it from a height to aerate and loosen the waste and form 2-3 meter high cones. Mist-spray bio culture on the cones. Every day or 2-3 days use the JCB to lift waste from the cones and drop it back to the same or a nearby location, to aerate the waste. This is rather fuel-intensive.

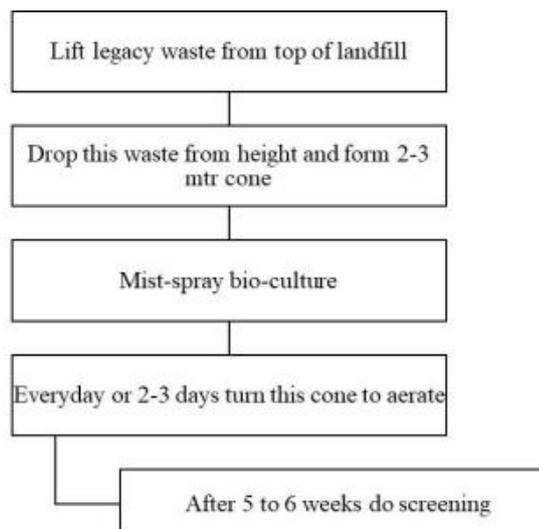


Fig. 4. Schematic representation of Bio-mining through Cone Method

- Where space permits, move the waste to form several long parallel windrows. Turn these weekly with a JCB. Often at the second or third turning, one heap can be

combined with a second one as their volumes decrease. Windrows can be aerated either by moving all the waste to form a new parallel windrow, with the innermost waste on the outside for aeration, or by moving all the waste forward in small steps while dropping it from a height for aeration.

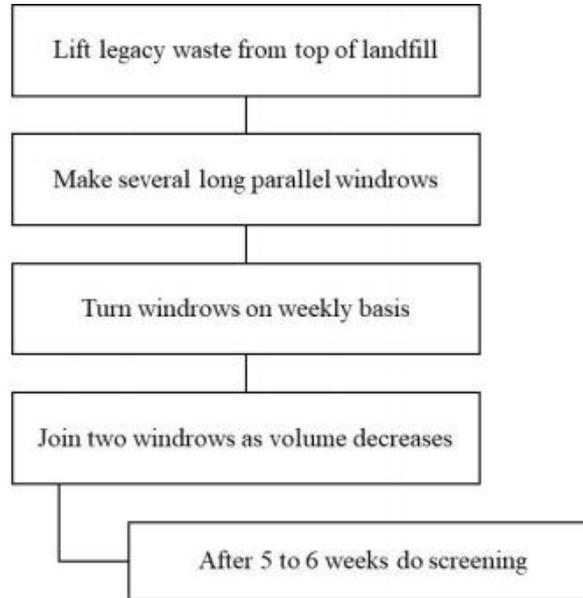


Fig. 5. Schematic representation of Bio-mining through Windrow Method for Spacious Landfill Sites

5. If waste needs to be moved from one location to another part of the same site, usually the perimeter, place it in thin 150 mm layers and mist-spray bio cultures. Allow 5 days to aerate one layer before adding the next one and mist-spraying bio cultures on that also. Turning may not be necessary when waste is spread thin like this, to decompose like leaves on a forest floor.

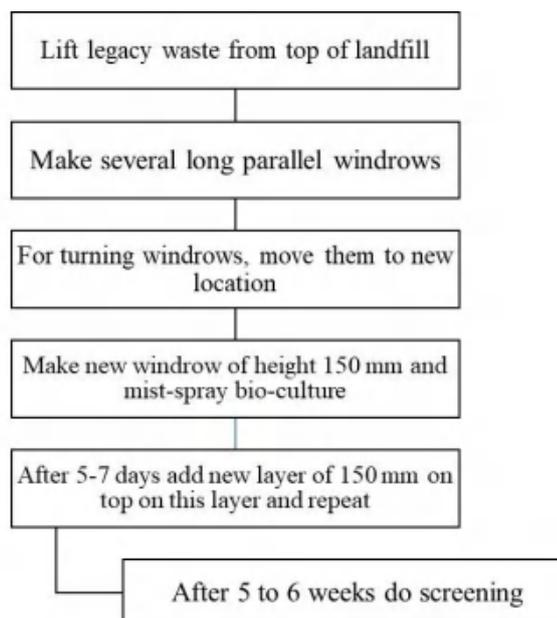


Fig. 6. Schematic representation of Bio-mining through Thin Layer Spreading Method

6. This is a constantly-evolving field. Hence other cost effective and space effective methods can also be applied.

4.1.3 Processing Equipment's for Processing of Legacy Waste:

The major equipment that would come in use would fall under the following heads of processes like excavation, shredding, screening, air classification and ferrous separation. As per suitability and requirement the appropriate choices should be made.

Screening

- Trommel
- Vibrating Screen
- Disc/ Star

Handling Equipment

- Loader (Front Load)
- Conveyers
- Fork Lifts

Screening

- Trommel
- Vibrating Screen
- Disc/ Star

Handling Equipment

- Loader (Front Load)
- Conveyers
- Fork Lifts

4.2 Treatment Process:

Processing of accumulated waste shall be done in following manner as given below:

1. Local Body (LB) shall make a time bound plan to execute the bio-mining process to clear the old waste.
2. Volume of waste to be determined through contour survey (Total Station Survey) and site measurements. Drone mapping of heap volumes at different stages is most cost-effective and fast. Weighment of heaps is difficult and problematic as payment would be collected for heavy fractions, leaving behind the more pollution-prone lighter fractions.
3. Initial Contour level survey of the site shall be done on start of work and Final Contour level survey shall be done on final completion of the work.
- 4 Do an initial baseline survey of surface and subsurface soils and waters and also leachate present, to check for heavy metals and toxics if any. Samples should be drawn by an NABL

or MOEF certified lab, also at the final stage. During operations, the operator should collect and keep daily samples of the finest fractions, to be pooled and analysed monthly or at random by an NABL lab. This is to ensure that unsterilized rotted waste is not simply moved from one location to another by mining without bioremediation.

4. Sprinkle the newly exposed surfaces with a composting bio culture solution or a dilute solution of 5% fresh cow dung in water. This will control smell and speed up decomposition. With the help of Back Hoe loader, the waste in the demarcated area should be loosened up.

5. Usually the top layer has several materials in the active biological state. This layer shall be stabilised through composting bio-cultures, as well as herbal/biological sanitizers if found necessary for odour control.

6. Raking of garbage layers by a long spike harrow operating in cross directions may be done as needed to pull out large rags, plastic, rubber, textiles etc.

7. Waste pickers or labour should manually pick out bulky waste like coconut shells, banana stems, tyres and rocks prior to screening for bio-mining. Store in separate heaps for sale or use.

8. Turn these windrow heaps once a week until no more volume reduction is observed in the heaps and no more heat is generated. If the garbage is stabilized, there will be no smell or leachate formation and the material will be dry enough for sieving.

9. LB or its agency may deploy Trommels and/or Horizontal Screens or other types of screens for the purpose of screening. Screen the stabilized waste in a rotary screen or gravity screens of different size openings, preferably 35mm and 8mm. A fan can blow out the plastic fraction for use by recyclers. Compost

10. Appropriate numbers of excavators, back hoe loaders and workers will be required to execute the work.

11. The recyclables recovered from the bio-mining process should be sent for recycling as per the quality of the material, which should also be randomly sampled by an NABL lab and tested for heavy metals, salinity/electrical conductivity and leachability to ensure no environmental harm during use. FCO standards for pH and contaminants could be provisionally used as a benchmark.. Non-Recyclable plastic material shall be sent for road making or to RDF units or cement plants. Initial cleaning of recyclable waste shall be done before it is transported for sale or disposal.

12. The recovered earthy fines shall preferably be used for landscaping or gardening or road medians within the Local Body or the site. The recovered soil can also be used as “Soil enricher” to develop green areas or by farmers.

- 13.** The recyclables like plastic, glass, metals, rags and cloth recovered from the waste during screening shall be sorted out and preferably cleaned before sending to recycling industries or as RDF.
- 14.** The heavy fractions may be sand and gravel usable for road shoulders or for plinth filling. Stones and concrete if any can be used for road sub-grade, or for crushing, recycling and reuse in the construction industry. The recovered construction and demolition waste recovered from the bio-mining process may be sent to a C&D processing facility if suitable for production of building materials.
- 15.** In very old garbage layers with high debris content, most of the organic matter may have already been decomposed. Do a seed germination test to ensure it is stabilised. Add biocultures to fully stabilise it if heat is still generated in windrow heaps or volume reduction is observed. After 7-10 days of stabilization the waste can be taken up for screening.
- 16.** Usually the finest fraction will be organic matter plus fine soil, called 'bio-earth', which can be used as soil improver, especially for restoring alkaline or saline soils to fertility, or to grow some vegetation for erosion control. It is also useful as a lawn subgrade cum drainage layer, or it can be used as organic manure in tree pits. . The next coarser fraction will be gravel and coarse organics, which can be used for road and railway embankments the coarsest fraction may have a lot of combustibles (cloth etc.) which can be baled and supplied as Alternate Fuel Resources in cement kilns or boilers.
- 17.** There may be some (maximum 5-10% of total) left over waste including lumps of heterogeneous nature. The waste may be soaked with leachate or hard and difficult to disintegrate. This waste can be sent to scientific landfill for disposal (near zero residues).
- 18.** The recovered land from the bio-mining process shall be utilized for any purpose deemed appropriate. Ideally reclaimed space should be reused for waste processing, otherwise for alternate non-habitation uses.



4.3 Use of Screened Fractions:

When planning for bio-remediation and bio-mining, it is important at the same time to identify where the screened fractions will go, in order to bring down the heap of mixed waste to fractions that would each have been usable if unmixed. None of these fractions will bring in income. In fact, their transport offsite is a cost to be budgeted for. Look for the nearest industries using solid fuel. Look for the nearest bitumen hot-mix plants and also specify Plastic Roads in road tenders to ensure offtake of the thin-film plastic fractions. Start a dialogue with all kabadiwalas within the local body to see who will be willing to pick up or accept which items. Plan for offsite aggregation space for different fractions and types of waste that will result from screening. Identify aggregation and storage sheds for use by waste-picker groups or kabadiwalas. Identify transporters who can transport different fractions out on their return trips.

For the bio-earth or good earth finest fraction, test periodically for heavy metals, then look for farmers willing to accept it. It is excellent for reclaiming salt-affected soils and for restoration of mining overburden areas if any are nearby. There is a cess for restoration of mined areas, which is normally unspent as forest departments are supposed to revegetate them. But this is unviable in barren rocky soil by planting and watering saplings. Revegetation is instead possible and effective by mixing grass seed with the good earth fraction and spreading it on the overburden to start a natural succession of grasses, herbs and shrubs.

4.4 Process Management:

There are several factors that must be kept in mind during implementation of the project.

4.4.1 Space Management:

For all waste-stabilising methods, management of space is the biggest challenge, as aeration, stabilizing and screening mostly needs to be done within the boundaries of an already overloaded dumpsite. This is achieved mainly by experience and creative common-sense. Onsite earth-mover operators often come up with the best solutions, so seek their opinions. Every dumpsite poses a case-by-case challenge, but there is no above-ground dump that cannot be successfully bio-remediated and bio-mined.



Fig. 7. Illustration of Trench Bio-mining at existing landfill site

Keep safety in mind. Always try to work downward from the top surface. Do not think of slicing waste from the top down along one side of the heap unless you can ensure leaving a stable wall of waste with a safe slope of 25 - 30 degrees while you work. Leaving a vertical wall of waste during operations can cause a dangerous landslide of disturbed waste.

4.4.2 Leachate Management:

Most high heaps of legacy waste are water-logged with leachate even near the topmost layers and all the way to the bottom, like a dhokla. This is not just from rainwater entering the heap but is produced by airless rotting within the entire waste heap. So when legacy waste heaps are opened up, some leachate almost always trickles out. This is not produced by the formation of wind-rows or cones, which in fact help to dry out the waste by aerated decomposition.

Channels must be created to lead the oozing leachate rivulets to a lined depression or pond for treatment or for leachate recirculation onto wind-rows as a type of bioculture. (test to see if heaps generate enough heat with its use). Leachate can also be treated in collection ponds by underwater composting. Bio-cultures that have been proved successful at other locations can be sprinkled onto the leachate pools. But intermittent aeration is a must, using small compressor pumps or aerators or airlift aeration or even simple manual or mechanical agitation. Aeration is necessary for the added microbes to do their work of digesting the polluting solids suspended in the dark and turbid leachate. Success is noticed by a progressive change in colour from dark to light, by reduction or absence of odour and by fine bubbles rising to the surface from digested solids.

4.4.3 Fire Control and Safety:

Most large dumpsites are smouldering from hidden fires. Methane itself is flammable with a blue flame, and supports the yellow-flame burning of combustible plastics, cloth and oily rags. Sometimes flammable industrial waste find its way onto dumpsites, aggravating the problem.

It is difficult to begin bio-remediation work on a smoking dump. Sometimes digging into the dump awakens hidden fires. So fire control is important. Adding water increases the generation of both methane and leachate and is counter-productive, not a long-term solution, Adding soil cover to smother the flames adds more material to a heap that one is trying to bring down.

There is a better way, again requiring creative common-sense and experience and training of earth-mover drivers. Most fires within heaps have a point source – a bag of textile discards or plastic waste or a ball of oily rags. Earthmover drivers must learn to dig in and pluck out these burning balls of fire. These should be laid nearby on the surface of the dump and then rubbed out with the back of the excavator shovel to extinguish the flames and smoke. Wet soil should be kept handy to immediately plug the excavated hole. Adding composting bio-cultures can be tried, to counter the anaerobic conditions around the burning spots. Smoking points must be tackled patiently and systematically, one by one, till the dump is smoke-free to begin stabilizing operations by bio-remediation.

It is important to do the risk assessment and an onsite emergency plan should be kept handy prior to commencement of dumpsite bio-remediation & bio-mining.

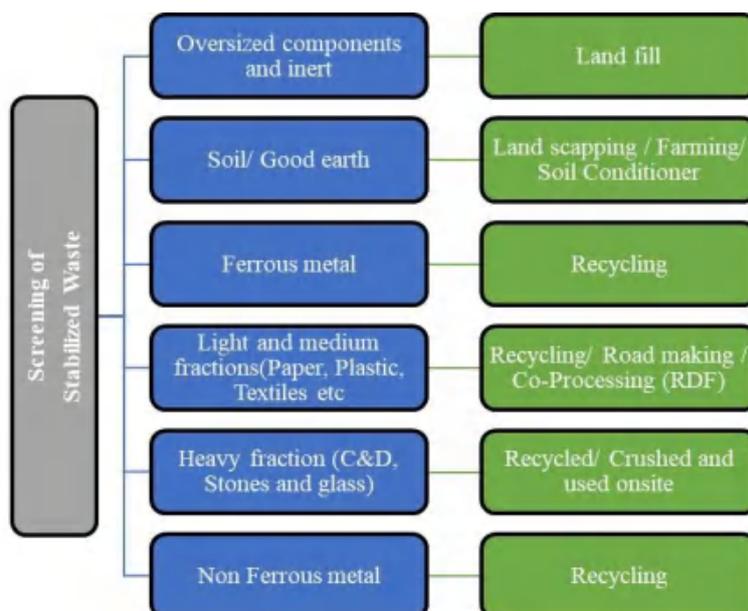


Fig.8: Schematic representation of screen components and its sustainable disposal

4.4.4 Use of Recovered Space :

The benefit of bio-mining lies in abatement of ongoing and future pollution and ill health and in the recovery and re-use of valuable space. This is ideally for continued long-term waste management since public consent for new waste sites is increasingly difficult because of earlier visible mis-management of a virgin site. Ensure advance demarcation and declaration of a buffer zone of no new habitation for upto 500 meters around the cleared site to prevent real-estate activity from encroaching the buffer as soon as the dump is removed.

If a dump is engulfed within a growing city and its continued use for waste management is unsuitable, identify in advance the planned future use of that site and put up a signboard indicating that use, to ensure public acceptance of the biomining operations which will be temporarily noisy and dusty. This will also protect the site from land-grabbers.

Cleared dumps are not permitted for habitation for at least 15 years (SWM Rules Schedule I, H (2)). This is because of unhealthy leachate below the site and formation of flammable and offensive landfill gases from waste pockets that may remain unexcavated.

Permissible options are reuse for SWM, open stadia, sports grounds, parks and gardens, parking lots, container yards, warehouses of non-flammables and similar facilities where people are not living or working all day and night.

4.5 Bio-mining Below-Ground Waste:

Many cities and towns chose abandoned quarry-pits to dump untreated waste, without realizing the permanently harmful effects of this. Leachate oozing out at the bottom of the pit cannot be seen or captured or treated and enters both shallow and deep groundwater through fissures in the rock. The hydrostatic pressure in deep quarries, as divers experience at increasing depths, forces the leachate even more forcefully into the cracks. Dark and smelly

water pollution begins to show up in nearby wells and bore wells after a year or further away even after 3-4 years, after which the damage is irreversible.

But leachate in an airless rotting mass continues to form for up to 30 years, so further damage can be prevented by bio-mining the quarry-pits. This has also been ordered by the NGT (in OA 179 of 2017). The waste needs to be excavated in descending layers like any open-cast mining and unloaded on the surface in windrows or conical heaps which can be turned weekly for 5-6 weeks before screening. Use of bio cultures is most important here, to control odour and the leachate which will run out while placing excavated material. Adding bio-cultures into the pit without excavation will not give the waste and the digesting microbes the air needed for stabilising the waste.

Immediate stoppage of further quarry-dumping of untreated waste is the most important action. The excavated quarry-pit, or any other quarry-pits that are planned for waste disposal, must first be filled to ground level with only debris and construction and demolition waste up to slightly above surrounding ground level. The newly-created space can then be used for waste stabilizing by unloading fresh waste in windrows here and turning them regularly. Any small quantity of leachate produced will be visible as it runs out from the edges of the heaps. Bio-mining /screening may have to be interrupted during monsoons, both above grounds and below ground.

4.6 Engineered Landfill and Capping:

Capping, in developed countries, is the preferred means of closure of scientifically engineered landfills with bottom and side liners. These lines as well as drainage layers and leachate and gas collection pipes are installed even before using the site for waste placement. Their capping is meant to keep out rain from the landfill so as not to add to the internally generated leachate which is continually pumped out through pipes and drainage layers for treatment. Landfill gas captured through pipes is generally flared, as generating power from its combustion is always loss-making.

The dumping of mixed MSW begins in low-lying areas without any prior waterproofing layers to protect groundwater or prevent landfill gas migration. Capping of unlined dumps is in fact dangerous as it makes the waste even more airless, generating more leachate and also more methane and landfill gas, which leaks out below the edges of the capping. This created a disaster at the Mindspace IT complex, constructed next to a capped landfill at Malad in Mumbai. The landfill gases entered the Mindspace basement where the central air-conditioning circulated it to every floor in the building, causing regular frequent failure of

every type of electronic equipment. Probably sulphur in the hydrogen sulphide gas made the circuit-board connections non-conducting. The problem is still unsolved. Another capping failure is at Bagalur in Bangalore, where leachate extraction wells were placed in a partly lined quarry pit before waste placement. A garden was constructed over the filled pit, with lawn sprinklers adding to the moisture in the waste through tears in the capping plastic. Now landfill gas and methane can be seen and even heard, vigorously bubbling up in every unemptied leachate-extraction well.

Capping should only be considered for the maximum 10% residual rejects after bio-mining (screening) of stabilized waste. The SWM Rules 2016 in Rule 15 (zk) permit it only where bio-mining and bio-remediation is not possible. Perhaps the only places where this is not possible are in steep inaccessible ravines and narrow valleys in mountainous regions.

4.7 Clearing vs. Capping of Legacy Waste:

The SWM Rules 2016 clearly mandate clearing of sites as a first option, by bio-mining and bio-remediation. Still, capping is often proposed or considered an option in India merely because it is done in the West. But clearing a dumpsite almost to ground level rather than capping it is a far better option for permanent pollution prevention, as well as for the following additional reasons:

Clearing by bio-mining recovers the entire base area of a dump at almost ground level. Capping gives only one-third of the base area as usable area at an inconvenient height for future use.

Cleared sites require no after-care. Capping requires at least 15 years of continuous leachate pump-out and treatment in a dedicated effluent treatment plant nearby. Gas extraction is very difficult and inefficient when attempts are made to insert suction pipes into dumped waste instead of before dumping begins. Poor success at Gorai capping led to the forced refund by Mumbai city of Rs 15 crore advance carbon credits.

Capping of open dumps (wrongly called SLFs or Sanitary Landfills) requires intake of fresh waste to be stopped and permanently diverted to a fresh site before capping begins. With increasing protests against fresh waste disposal sites, getting started elsewhere can often delay capping plans indefinitely. Bio-remediation and Bio-mining to clear a site can start

immediately at one part of an actively used dump while fresh waste continues to be received and stabilized at another part. Clearing can be done in phases to match available funds.

In the USA, only grass is permitted to be grown on the soil cover of a capped site. It must be regularly mowed for 15 years to prevent the growth of herbs or shrubs or trees whose roots may penetrate the plastic layer below the soil cover. If trees are planted over soil capping, they die in a few years as soon as their roots enter the hot airless waste below. Capped sites are closed to the public for 15 years. But if a dump is cleared to near ground level, it can be easily converted to a public tree park or garden if desired, unless below-ground waste remains untreated on the site.

Thus capping of dumpsites is not advisable. However, if any scientific landfill site for municipal waste is present which has been constructed as per the norms and guidelines of MoEF&CC and has been filled to its maximum level, possibility of capping can be explored.

5.0 Costs:

Operation & Maintenance Cost for Bio-remediation and Bio-mining :

Operational Expenditure of the project would depend on the size of dumpsite. The onsite bioremediation cum biomining cost ranges between Rs 400 to 700 per cubic meter, irrespective of capital cost. The case by case cost of moving screened fractions offsite will be extra and variable, depending on distance to farmers, cement plants etc.

Case Studies :

Clearing of large dumps has been effectively done since at least 1998, at over 20 documented sites and perhaps other informally undocumented ones. Sites have been effectively reused for waste disposal or for parks and sports grounds and open maidans for periodic events.

There are at most five capped dumps to date in India, all with problems. Pune capped its old waste to create an impervious base for windrow composting, but instead dumped more waste which is now a stinking hill above it. Landfill gas leakage at Malad (Mumbai) and unsuccessful gas capture at Gorai (Mumbai) and Bagalur (Bangalore) have been described above. Case studies such as capping of legacy waste at Jawaharnagar in Hyderabad reveal issues of cost over-runs. . The dump contains 12 million tons of the city's waste accumulated till 2012. Every monsoon, leachate from the legacy dump seeps into the ground and pollutes the lakes around the site.

Leachate ponds to store the liquid have been of no use as they overflow during rains. Capping normally means laying of a thick soil cover over a cover of HDPE (High Density

Polyethylene). To facilitate release of gaseous emissions from the dump, pipes are planned to be installed. Besides, drainage pipes will also need to be laid to pump out leachate emanating from wet garbage inside. The concessionaire claims to have so far completed 95 per cent of the profiling of garbage, and capped about 30% of the dump with soil cover.

6. Training:

Bio-remediation and bio-mining is currently (January 2019) going on at several places: Dimapur, Vijayawada, NOIDA, Vadodara, Indore and is planned at a few more cities in Tamil Nadu, Assam and Madhya Pradesh. The best way to learn how to do it well is to observe legacy waste stabilizing (bio-remediation) and screening (bio-mining) and disposal of fractions at such sites. Every State where dumpsite clearing is under way must arrange for educational field visits by the field officers of nearby cities and districts. Bio-remediation with 40% waste volume reduction has been done by cities in-house at over eight sites, using their existing earthmoving equipment and manpower available at the dump, and engaging only the bio-culture spraying services which often are paid for by savings in fire control and leachate management. So bio-remediation can begin at once anywhere, while tenders are floated for the bio-mining operations that usually begin five months later when the stabilized waste is dry enough for screening.

7. Stabilising Fresh Municipal Solid Waste:

Clearing of old dumps is meaningless unless the creation of fresh open dumpsites is stopped. This is best done by proper segregation of biodegradable waste and its processing through aerobic composting or Biomethanation as mentioned in SWM 2016 Rule 15 (v) (a). For this the practice of unloading waste and then levelling it into airless heaps must stop. Instead, incoming waste must be unloaded in wind-rows.

This is easily done by moving the garbage vehicle slowly forward during unloading. This leaves the waste unloaded as a long low heap which can be bio-treated with composting bio-cultures and then shaped by a Bobcat or JCB into neat parallel windrows of maximum 2 – 2.5 meter height and of whatever length the site space permits. More than one row per day can be formed, depending on daily waste volumes. If prevailing winds in the area are West to East, let the wind-rows stretch from West to East (not North to South) so that the wind can blow freely between the rows for maximum aeration and moisture removal.

These windrows must be punctually and regularly turned every 5-7 days, using small earthmoving equipment or even tractors with lifting arrangement for smaller quantities. The

heaps can be turned to form a parallel windrow, with the innermost airless portion getting exposed to air on the outside of the new heap at each turning. Or the waste from one end of the windrow can be lifted up and dropped a little forward, so the entire heap is aerated and moved a little forward in the process. At the next turning the whole heap can be moved backward again similarly, if space is a constraint. Leave enough space between windrows for movement of turning equipment.

When the heaps are so hot inside that a lot of white water vapour like steam is seen coming out during turning, that is a good sign that stabilizing is going well. After 4-5 turnings, water vapour will no longer be visible and the waste will have reduced in volume by 40% and become free-flowing. A germination test is the best way to ensure that the waste is stabilized and good to use. Sprinkle exactly 50 or 100 ragi seeds in one tray of stabilized waste and in a similar tray of good red soil. Water both in the same way for a week and count the sprouted seedlings. If waste is well stabilized, the numbers in it should be similar to those in the red earth.

Smaller towns with farms nearby can keep a mesh screen available onsite for use by farmers who may wish to do some coarse screening before taking away the stabilized waste to their fields, preferably free or on nominal payment. It is never really free to farmers, who have to spend a day plus labour and vehicle hire to take it away to their fields. But it is a huge help to cities to have their disposal sites emptied this way.

If windrow unloading and stabilising is done for unmixed wet waste, all of the resulting material is usable. But this should invariably be done even for mixed waste. The non-biodegradable waste left over after screening may contain recyclables. These should reach the dry waste sorting centres for recycling or sustainable end of life disposal. Such Sorting Centres (SC) or Dry Waste Collection Centres (DWC) should preferably be present in every ward. Material Recovery Facilities (MRF) for processing the waste at city level should also be established based on the quantum of the waste generation. Establishment of such MRFs and DWC shall be at the discretion of Local Bodies.

Informal sector workers should be employed at such SC/DWC or MRFs to help include waste pickers into city's solid waste management together with their up-liftment. To ensure sustainable and maximum waste recovery and recycling from such centres, the prime responsibility can be contracted to competent executing agencies where disposal of dry waste can operate through the principle of Extended Producers Responsibility. The non-recyclables can be used to prepare refuse derived fuel for co-processing in cement plants or used in road making as per the city's requirement or pyrolysis etc.

8. Environmental Risks of Bio-mining :

There are several potential environmental risks associated with bio-mining projects and therefore a plan addressing these potential risks should be kept ready. Most of the conditions present at the landfill and its surroundings will be unique to the specific landfill, and specific to the age of the waste being excavated.

Majorly the risks would be associated with proper management of hazardous waste that may be uncovered during the operations of reclamation, managing the releases of gases, odours, its associated risks to human health and controlling any fire, subsidence or collapse.

Environmental risks can be managed well if considered in advance of the operations and appropriate mitigation measures have been designed by the executing agency.

9. Safety

- i. The execution of projects of legacy waste bio-remediation/ bio-mining all the workers involved should be covered under ESIC and proper safety equipment and kits should be provided
- ii. Such projects can be a part of regulatory compliances of environmental protection under PWM Rules, 2016.
- iii. Local Bodies (LB) shall ensure insurances of workers working at the Bio-remediation/ Bio-mining dumpsite for any hazards due to fire, radiation or explosion.
- iv. Small scale/ laboratory testing for monitoring a Bio-remediation / Bio-mining project will need to be borne by the LB in addition to Operational expenditure to achieve objectives of Bio-remediation / Bio-mining project.

v. Proper slope stabilization should be maintained during biomining.

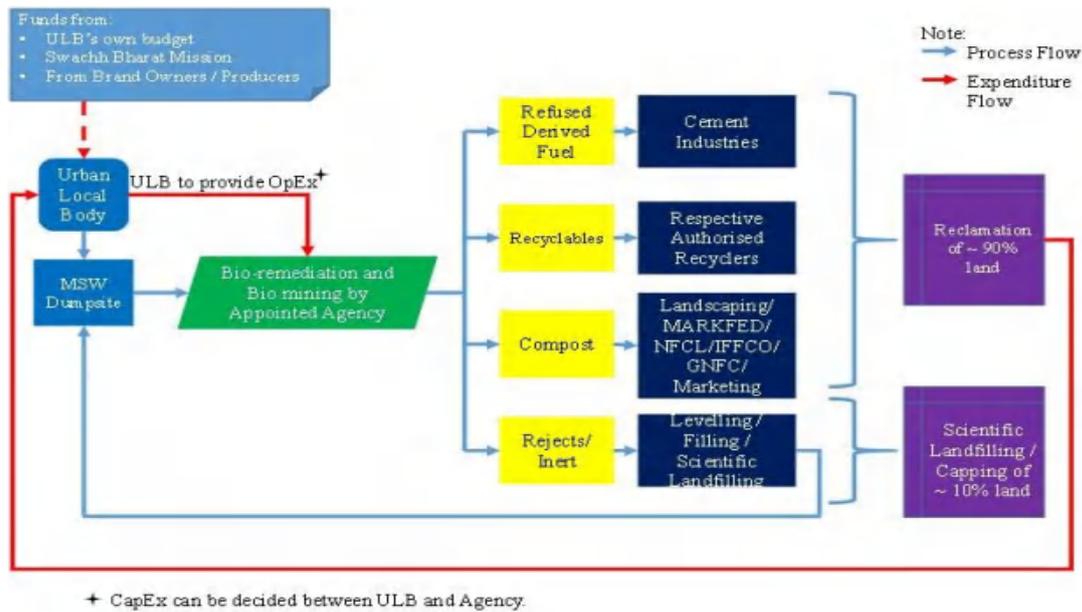


Fig. 9 Schematic representation of the operating model for legacy waste bio-remediation and bio-mining

10. Conclusion:

Legacy Waste has several ill-effects like generation of greenhouse gases, pollution of the entire ecosystem around the dump site, posing risk of uncontrollable fire, etc. Thus it is very critical to start working on clearing it today and ensuring that fresh waste is also handled accordingly. This will also improve the morale of the ULB and its residents.

It is the responsibility of ULB to ensure that remediation of dumpsite is done inhouse or by engaging a competent agency. ULB will have to pay an agency the expenditure for remediation of legacy waste as one cannot forecast the chance of recovering recyclables from the highly contaminated waste nor forecast revenue from selling of recyclables so as to financially sustain the entire model. However, a clause can be made by ULB during appointing agency that the revenue generated by selling any recoverable material shall be transferred back to ULB. This can make the executing agency a technology and manpower partner in the project, who is paid for a management cost.

ULB can either go with the 5 models explained for bio-remediation and bio-mining of legacy waste, or make its own cost-effective, space effective and sustainable option, introduce new technology or install various other machinery/equipment based on the practical circumstances of legacy waste. Various types of waste will be recovered from legacy waste like dry waste,

soil conditioner, hazardous waste, bio-medical waste, construction and debris waste, e-waste, etc. All these wastes should be disposed of as per the norms and guidelines issued by MoEF&CC under respective waste management and handling rules under the Environment (Protection) Act 1986. It would be the responsibility of ULB to bear the cost of disposal of all these types of waste,

Waste below the size of 50 mm need not be shredded before sending to cement companies for co-processing. For waste above the size of 50 mm, tie-up can be done with neighbouring cement plants to install shredder at their plant if agreeable.

ULB also needs to ensure that fresh waste generated in city is handled collected and processed separately as per the norms and guidelines issued by MoEF&CC. Covered collection vehicle and segregated collection needs to be ensured. For Dry Waste a Material Recovery Facility should be installed to recover maximum material for ensuring that our cities are Zero Waste to Landfill cities. Recyclable waste is sent to authorize recyclers and non-recyclable waste should be sent to hotmix plants for plastic roads or to P2F (Polymer To Fuel) plants or for co-processing to cement plants. Wet waste should be processed to get compost/ bio-gas etc. Bio-medical waste, hazardous waste, e-waste, construction and debris waste, etc. should be sent to respective authorized disposal sites.

It is also very important to understand that to ensure that no such legacy waste is accumulated in future, all ULB's should refrain from floating tenders for collection, handling, and processing of mixed waste. All ULB's should keep infrastructure required for collection, handling and processing different type of waste separately. There are various benefits attached to clearing dumpsites which need to be understood by ULB to speedily start work on it.

These guidelines apply to cities, towns and even villages. Bio-remediation and bio-mining of MSW projects may not be economically viable but are mandatory to improve waste management ecosystems across India. Besides, land cleared by way of bio-mining and bioremediation of legacy waste, huge land area is evacuated, which can compensate the cost of its treatment.

11. References:

- i. Solid Waste Management Rules, 2016
- ii. Plastic Waste Management Rules, 2016 as amended 2018
- iii. IPCC Third Assessment Report, 2001
- iv. Feasibility and Viability of Landfill Mining and Reclamation in Scotland by Ricardo-AEA on behalf of Zero Waste Scotland.

1.07

Leachate Management in Ganga Town Dumpsites: Alignment with SBM Guidelines

Introduction: Uttar Pradesh, with its strategic location along the Ganges, recognizes the importance of safeguarding the environmental integrity of its dumpsites. In strict adherence to the Swachh Bharat Mission (SBM) guidelines, the state has implemented a comprehensive approach to leachate management, ensuring the protection of these ecologically significant zones [1].

Techniques Adopted for Leachate Management in Uttar Pradesh:

1. Leachate Collection Points:

- Description: Proper collection, treatment, and disposal of leachate are vital. Dumpsites are equipped with systems to collect leachate, which is then directed to nearby Sewage Treatment Plants (STPs) for treatment [1].
- Advantage: This ensures minimal environmental contamination, aligning with the SBM's emphasis on environmental protection.

2. Leachate Recirculation:

- Description: For sites in Uttar Pradesh that are distant from STPs, leachate recirculation is employed. This method reintroduces collected leachate back into the landfill [1].
- Advantage: Leachate recirculation maintains a high moisture content in the waste, essential for microbial activity. This accelerates waste decomposition, reduces the risk of fires at the dumpsite, and prevents the creation of anaerobic conditions that lead to methane generation [2].

3. Aeration of Waste:

- Description: Waste in Uttar Pradesh's dumpsites is aerated using earth-moving machinery [1].
- Advantage: Aeration introduces oxygen, preventing anaerobic conditions. This reduces methane generation, a potent greenhouse gas, and minimizes the risk of spontaneous fires due to methane build-up [2].

4. Temporary Impermeable Covering:

- Description: Directions given to respective ULBs in Uttar Pradesh to cover a substantial part of dumpsites with impermeable materials during heavy rainfall seasons [1].
- Advantage: This proactive measure reduces water percolation, leading to decreased leachate generation.

Groundwater Contamination Prevention in Uttar Pradesh:

- Impermeable Lining: Upholding the SBM guidelines, key dumpsites in Uttar Pradesh have been retrofitted with impermeable linings. This measure ensures that leachate doesn't seep into the ground, safeguarding groundwater sources [1].
- Mitigation Techniques: Techniques such as leachate recirculation and aeration, both emphasized in the SBM guidelines, play a pivotal role in reducing groundwater contamination risks in Uttar Pradesh [1].

Conclusion: We affirm our commitment to the environmental integrity of the Ganga town dumpsites. Our measures, in strict alignment with the SBM guidelines, not only ensure the protection of these ecologically sensitive zones but also stand as a testament to Uttar Pradesh's dedication to sustainable waste management [1].

References:

[1] Swachh Bharat Mission - Urban (2020). Advisory on Landfill Reclamation. Ministry of Housing and Urban Affairs, Government of India. Pages 12, 14, 16, 27, 59, 60

[2] Methane, a greenhouse gas produced at solid waste disposal sites, contributes to global warming and is 21 times more potent than carbon dioxide. Methane often auto-ignites, causing fires in the dumpsites, generating smoke and emissions, leading to severe air pollution.