UD/00/2019/00010

Office of the

Asansol Alumcipal Corporation Asansol : Paschim Bardhaman

Dated: 29 /2 20/

Alemo Do

The Director State Urban Development Agency

Comprehensive approach for scientific management on Solid Waste Management Sub

Memo No 922(150)/MA/O/C-4/1M-12/2018 dated 17 12:2018 of the Joint Secretary, UD & MA Ref (Municipal Affairs Branch). Govt. of West Bengal

Madam.

With respect to the subject captioned above, I would like to draw your kind attention towards following points

- (a) Asansol Municipal Corporation has 106 Wards and area wise is the largest corporation in West Bengal
- (b) In Asansol Municipal Corporation, the conservancy works in most of the Wards has been strengthened and is taking place twice in most of the Wards. Also special focus is given in the areas whose daily footfall is very high
- (c) Asansol Municipal Corporation also started House-to-House collection in around 70 Wards and trying to implement the same in rest of the Wards
- (d) Asansol Municipal Corporation has procured waste handling tools and vehicles and as of now there is no shortage of the same. All the vehicles are GPS mounted and are tracked regularly.

Before the facility for processing and disposal of solid waste will be installed and commissioned the intervening time can be utilized for strengthening the collection part of solid wastes and their transportation. I request your goodself to provide us handholding support/sustainable models to strengthen our primary conservancy work especially House-to-Household Collection and Segregation

Yours faithfully

Commissioner Asansol Municipal Corporation

Dated: 25, 12 2018

Alemo Do

344 XVI-1/0) 1/85/1448

Copy forwarded for kind information to

1. The Mayor Asansol Municipal Corporation.

The PS to the Hon'ble Principal Secretary UD & MA Department, Govt, of West Bengal

SUNA Municipa SUDA (Municipa SUDA) 2818 The Joint Secretary, UD & MA Department (Municipal Affairs Branch). Govt of West Bengal

Commissioner Asansol Municipal Corporation

# NOITAROGROS JAGISINUM JOSH

Dr. G. R. Mitra Sarani, P.o.- Asansol, Dist. Burdwan, West Bengal

Raniganj Office : 0341-5444852 Engg. Dept. 330 9476

: 0341-7422262 / 2422984

181.50.50

Kulti Office : 0341-5214335 Jamuria Office

: 230 2370

Mayor's Chamber

Dy. Mayor's Chamber : 230 9479 Chairman's Chamber : 230 9225

Commissioner : 230 2491

General Off. (Asl.) : 230 2219 / 230 9476

Ret No 1153 PM 1818 18

IFENS Byaman State Urban Development Agency (SUDA) The Tender Committee

Bidhannagar, Kolkata 700106 HC Block, Sector III, Salt Lake City

geo technical report etc. to be vetted by JU/BESU/IIT/NIT etc.) under Asansol Municipal Corporation capacity plant including setting up of compost plant (if required) on turnkey basis ( All design, drawing, Subject: Construction of Bio gas to electric generating unit for 100 MT Municipal Solid Waste Process

E-Quotation Notice No.: 169/PW/Eng./2018 Dated 31.01.2018

from the DPR cost (DPR cost is Rs. 27,24,86,000.00). Submitted for your kind necessary approval. offered by the Sampurn(e)arth Environmental Solution Pvt. Ltd. is 14,30,00,000.00 which is 47.52% less herewith. The lowest bidder is Sampurn(e)arth Environmental Solution Pvt. Ltd. and the lowest rate financial Bid and the details of which are shown in the auto generated comparative statement enclosed Based on the technical scrutiny details shown in the technical evaluation sheet. We have opened the

2. Copies of 9 numbers paper cutting ( main bid including 2 nos corrigendum) 3 in List of enclosure: 2. E-Procurement system of tender details including corrigendum.

Bengali, 3 in English, 3 in Hindi.

3. Technical evaluation sheet

4. Auto generated financial comparative statement

Yours faithfully,

Secretary Asansol Municipal Corporation

Againsol Municipal Comoration

8/8/3/19/8511 OU OWAW

Copy forwarded for kind information to:

1. The Mayor, Asansol Municipal Corporation.

2. The Commissioner, Asansol Municipal Corporation.

4. The Chief Engineer, Asansol Municipal Corporation. The Chief Engineer, KMDA, Unnayan Bhawan, Salt Lake City, Bidhannagar, Kolkata.

5. The Superintending, Asansol Municipal Corporation.

The Executive Engineer, M.E.Dte., Asansol Division.

Secretary Asansol Municipal Corporation Secretary

noils iomoo legicino Municipal Comoration

**Dailhay** Contents not

ie : www.asansolmunicipalcorporation.org, E-mail : mayor.amc@gmail.com, Fax : (0341) 23

# TAROGROS JAGISINUM.

Dr. G. R. Mitra Sarani, P.o.- Asansol, Dist. Burdwan, West Bengal

Raniganj Office : 0341-2444825 Engg. Dept. 330 9476

Jamuria Office : 0341-5422265 / 5422984

-81-20-56

Kulti Office : 0341-2514332

: 230 2370

Mayor's Chamber

Dy. Mayor's Chamber : 230 9479 Chairman's Chamber : 230 9225

Commissioner : 230 2491

General Off. (Asl.) : 230 2219 / 230 9476

ROL NO 1153 PM PASIS

Bidhannagar, Kolkata 700106 HC Block, Sector III, Salt Lake City IFENS Byswan State Urban Development Agency (SUDA) The Tender Committee

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4. Auto generated financial comparative statement

Yours faithfully,

Secretary Asansol Municipal Corporation Secretary 24

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Copy forwarded for kind information to:

8188/1881(9) 18811 OU OWAN

1. The Mayor, Asansol Municipal Corporation.

The Chief Engineer, KMDA Unnayan Bhawan, Salt Lake City, Bidhannagar, Kolkata. 2. The Commissioner, Asansol Municipal Corporation.

4. The Chief Engineer, Asansol Municipal Corporation.

5. The Superintending, Asansol Municipal Corporation.

6. The Executive Engineer, M.E.Dte., Asansol Division.

ROBRIOMOO INVIDENTIAN INSUES Majaroas Asansol Municipal Corporation



s www.asansolmunicipalcorporation.org, E-mail.: mayor.amc@gmail.com, Fax : (0341) 2

# **Technical Bid Evaluation Sheet** Technical Recommendation Sheet

Name of Work: Construction of Bio gas to Electric generating unit for 100 MT Municipal Solid Waste process capacity plant including setting up of compost plant ( if required) on turnkey basis ( All design, drawing, geotechnical report etc. to be vetted by JU/BESU/IIT/NIT etc.) under Asansol Municipal Corporation

E-qotation notice no. EQ-169/PW/Eng/2018 Dated 31.01.2018

Tender ID. No.: 2018\_MAD\_152645\_1

SL NO.	SL NO. NAME OF THE BIDDERS	PAN NO.	GST	TRADE LICENCE	EARNEST	CREDENTIAL	REMARKS
	EClean Spectron Environment Pvt Ltd No 129, Andheri Industrial Estate, OffYeera Desai Road, Andheri 0N), Mwnbai 400053	AADCE1509N	Submitted 19ANiPS2694DIZI	Corporate Identity Number: U74120MH2012PT C2335748	Submitted	Submitted	May be recommended for Financial Bid .
2	ORGANIC RECYCLING SYSTEMS PRIVATE LIMITED	ААВСО0867Н	Submitted 27AABCO0867H1ZE	Corporate Identity Number: U40106MH2008PT C186309	Submitted	Submitted	May be recommended for Financial Bid .
8	SAMPURN(E)ARTH ENVIRONMENT SOLUTIONS PRIVATE LIMITED	AARCS3175Q	Submitted 27AARCS3175QIZC	Corporate Identity Number: U37100MH2012PT C229488	Submitted	Submitted	May be recommended for Financial Bid

29|3|18 STITUTE OFFICE Assarsol Municipal Cor

Tender Committee Member

Tender Committee Member

Tender Committee Member

Municipal Engineering Directorate EXECUTIVE ENGINEER Tender Committee Govt. of West Bengal Asansol Division

Secretary Asansol Municipal 13empel

Tender Committee

ENVIRONMENT PRIVATE Environmental Solutions 143000000.0 143000000. Amount Rate 277500000.0 277500000.0 Rate 530100000,0 530100000.0 Tender Title: Construction of Bio gas to Electric generaling unit for 100 MT Municipal Solid Waste process capacity plant including setting up of compost plant ( if required) on turnkey basis under AMC. Name of Work: Construction of Bio gas to Electric generating unit for 100 MT Municipal Solid Waste process capacity plant including setting Amount Organic Recycling Systems Pvf. Ltd. Rate 00.0 Estimated Rate eProcurement System of Government of West Bengal Units Created Date/Time: 05-Apr-2018 05:41 PM 1.00 Each Tender Id: 2018\_MAD\_152645\_1 SCHEDULE OF WORK / ITEM(S) Created By: SUKUMAR DEY No.of Qty Construction of Bio gas to Electric generaling unit for 100 MT segregated Municipal Solid Waste out of 218.40 MT unsegregated process capacity plant including setting up of compost plant ( if required) on turnkey basis ( All design, 1.00 Construction of Bio Gas Plant to Electric generation unit drawing, geo-technical report etc. to be vetted by Description of Work / Item(s) including compost plant JU/BESU/IIT/NIT etc.) ender Inviting Authority: Contract No: SLNo

277500000.0

530100000.0

Lowest Amount Quoted BY: Sampurn(e)arth Environmental Solutions Pvt. Ltd.(143000000.00)

otal in Figures

1430000000.0

0 rth Environment

al Solutions Pvt Ltd.

143000000.0 | Sampurn(e)a

L1 Amount | L1 Vendor

Asansol Municipal Corporation

Finance Officer

Asansol Municipal Corporation Superintending Engineer

Tender Committee

Asansol Municipal Corporation

Tender Committee

Member

Jien of the state Asansol Division ASANSOL MUNICIPAL CORPORATION Minicipal GOVT. OF WEST RENGAL UD & MA DEPARTIMENT CHIEF ENGINEER

Jender Committee Secretary Member

Member Ostosti8

Asansol Municipal Corporation



#### eProcurement System of Government of West Bengal

#### **Tender Details**

Date: 25-Jul-2018 12:49 PM

昌 Print

Basic Details			
Organisation Chain	MUNICIPAL AFFAIRS DEP	ARTMENT  URBAN LOCAL BODIES  ASANSOL M	С
Tender Reference Number	EQ-169/PW/ENG/18		
Tender ID	2018_MAD_152645_1		
Tender Type	Open Tender	Form of contract	Item Rate
Tender Category	Works	No. of Covers	2
General Technical Evaluation Allowed	No	ItemWise Technical Evaluation Allowed	No
Payment Mode	Online	Is Multi Currency Allowed For BOQ	No
Is Multi Currency Allowed For Fee	No		I

Online	S.No	Bank Name	
Bankers	1	ICICI BANK	
	2	ICICI NEFT/RTGS	

Cover D	etails, No. Of Cove	ers - 2	
Cover No	Cover	Document Type	Description
1	Fee/PreQual/Technical	.pdf	NIT
		.pdf	ANNEXURE
2	Finance	.xls	BOQ

<u>Othe</u>	er Important Document	S		
S.No	Category	Sub Category	Sub Category Description	Format/File
1	CERTIFICATES	CERTIFICATES	VAT/SALES TAX REGISTRATION CERTIFICATE ALONG WITH ACKNOWLEDGEMENT , PAN, LATEST IT ACKNOWLEDGEMENT, PTAX,LABOUR LICENCE	
	COMPANY DETAILS	COMPANY DETAILS 1	PARTNERSHIP DEED, CO- OPERATIVE SOCIETY BYLAW, MOA,TRADE LICENCE,COMPANY REGISTRATION CERTIFICATE	*
3	CREDENTIAL	CREDENTIAL 1	CREDENTIAL 1	

Tender Fee Detai	ls, [Tot	al Fee in ₹ * - 0.00	2]	EMD Fee Detai	ls		
Tender Fee in ₹	0.00			EMD Amount in ₹	1,00,000	EMD Exemption	No
Fee Payable To	Nil	Fee Payable At	Nil			Allowed	140
Tender Fee	No			EMD Fee Type	fixed	EMD Percentage	NA
Exemption Allowed					ASANSOL MUNICIPAL CORPORATION	EMD Payable At	ASANSOL

Title	Construction of Bio gas including setting up of c	to Electric generating unit for ompost plant (if required)	or 100 MT Mu on turnkey ba	unicipal Solid Waste process	capacity plant
Work Description	Construction of Bio gas		or 100 MT Mu	inicipal Solid Waste process	capacity plant
Pre Qualification Details	Please refer Tender door				
Independent External Monitor	NA				
Tender Value in ₹	0.00	Product Category	Other Works	Sub category	NA
Contract Type	Tender	Bid Validity(Days)	120	Period Of Work(Days)	365
Location	ASANSOL MUNICIPAL CORPORATION	Pincode	713301	Pre Bid Meeting Place	Secretary, Asansol

					municipal Corporation
Pre Bid Meeting Address	Asansol municipal Corporation, Asansol, Paschim Bardhaman	Pre Bid Meeting Date	12-Feb- 2018 11:00 AM	Bid Opening Place	ASANSOL

Critical Dates	177		
Publish Date	01-Feb-2018 05:00 PM	Bid Opening Date	17-Mar-2018 03:00 PM
Document Download / Sale Start Date	01-Feb-2018 05:00 PM	Document Download / Sale End Date	15-Mar-2018 03:00 PM
Clarification Start Date	NA	Clarification End Date	NA
Bid Submission Start Date	02-Feb-2018 10:00 AM	Bid Submission End Date	15-Mar-2018 03:00 PM

NIT Document	S.No	Document Name	Description		Document Size (in KB)
	1	Tendernotice_1.pdf	NIT		3256.38
	2	Tendernotice_2.pdf	ANNEXURE		516.49
Work Item					
Documents	S.No	Document Type	Document Name	Description	Document Size (in KB)
		BOO	BOQ_270654.xls	ВОО	275.50

Bid Openers List		
S.No Bid Opener Login ID	Bid Opener Name	Certificate Name
1. skumardey1960@gmail.com	SUKUMAR DEY	Sukumar Dev
<ol><li>2.dorien.mukherjee@gmail.com</li></ol>	Mukherjee Shyama Prasad	Shyama Prasad Mukherjee
3.sukamal.mondal@vvki.net	Mondal Sukamal	Sukamal Mondal

Tender Inviti	ng Authority	
Name	SECRETARY	
Address	ASANSOL MUNICIPAL CORPORATION	

Tender Creator Details		
Created By	SUKUMAR DEY	
Designation	SAE	
Created Date	01-Feb-2018 03:58 PM	

Tender Publisher Details		4		
Published By	SUKUMAR DEY			
Designation	SAE			
<b>Published Date</b>	01-Feb-2018 05:00 PM	4 - 1-1-1-1		

বিমান দুর্ঘটনায় হত ৩২ : সিরিয়ায় রাশিয়ার একটি সামরিক পরিবহণ বিমান ধ্বংস হওয়ায় মারা গেলেন বিমানের ৩২ জন যাত্রী। মঙ্গলবার বিমানটি উপকূলবতী লাতাকিয়া শহরে হেইমিম বিমানঘাঁটিতে অবতরণ করার সময় দূর্ঘটনার

কবলে পড়ে। মারা যান ২৬ জন যাত্রী ও ৬ জন ক্রু সদস্য। যান্ত্ৰিক গোলযোগেই এই দুৰ্ঘটনা ঘটে বলে জানা গিয়েছে। এর আগৈও এই বিমানঘাঁটিতে বিদ্রোহীদের ক্ষেপণাস্ত্র হামলায় ধ্বংস হয়েছে রুশ যদ্ধবিমান।



সেনা। সোমবার ক্যান্ডিতে।

জনসংখ্যার ৭০ শতাংশ। ভোষী হিন্দুর সংখ্যা ১৩ শতাংশ। টারদের নিরাপত্তার দাবি লেন রাজীব শুরু : এই মৃত্তুর্ড ক্রিকেট টুর্নামেন্টে অংশ নিতে র রয়েছে ভারতীয় ক্রিকেট দল। জরুরি পরিস্থিতি জারির তে ভারত সরকারের কাছে া ক্রিকেটারদের সূরক্ষা নিশ্চিত দাবি তুললেন আইপিএলের যান রাজীব শুকু।

# য়াত শান্মি

: প্রয়াত প্রবীণ বলিউড ও ভিশন অভিনেত্রী শান্মি। মঙ্গলবার ল তাঁর ছবি ইনস্টাগ্রামে পোস্ট এই খবর জানান ফ্যাশন ইনার সন্দীপ খোসলা। তিনি ন লেখেন, "আমরা তোমায় মিস তুমি সবসময় আমাদের কাছে ল। শান্মি আন্টি তোমার আত্মার হোক।" পরে দৃঃখপ্রকাশ করেন বচ্চন। নিজের টুইটারে "শাস্মি আন্টি…দুরন্ত নত্রী। ইন্ডাস্ট্রিতে প্রচুর অবদান তার। প্রিয় পারিবারিক বন্ধু চলে । দীর্ঘদিন ধরে ভুগছিলেন पूःश्वजनक। शीरत शीरत मवारे বে।" কমিক রোলে অভিনয়ের সবার কাছে পরিচিত ছিলেন শো করেছেন দুরদর্শনেও।

W.B.S.R.D.A., h 24 Parganas District Unit T No.: 14/02/EE/2017-18 RDA/Mamtenance/South (3rd 05.03.2018 e-tenders is invited work. Details are available

e-Tender Notice (Abridged) No. NIeT-17/EE(BRM) of 2017-2018 Vide Memo No.391/BHM dt. 05.03.2018 The Executive Engineer, Birbhum Division, P.H.E. Dte. Suri, Birbhum invites e-tender for "Design, Supply, Laying & Pushing of 600 mm dia. 10 mm thick M.S Spiral Welded Casing Pipe of Fe 410 grade as per IS: 3589-2001 by Adopting Trenchless Technological gies (Jack Pushing Method) under Railway Track under different PWSS" under Birbhum Division, P.H.E. Dte. Details will be available from the website "www.etender.wb.nic.in" & Office Notice Board.

> Executive Engineer Birbhum Division P.H.E. Dte.

MALDA ZILLA PARISHAD 32 N.S. Road, Malda-732101

# ABRIDGED NOTICE INVITING

NIT No 32(e)/MZP/2017-18 [3rd Call], of NIT No. 16(e)[1st Call] & 25(e)[2nd Call] of MZP/2017-18]

On behalf of Malda Zilla Parishad, tender are hereby invited by the u/s for one no. of work

Last date for submission of tender is 16/03/18 (upto 16.30 hrs.).

For details of the tender pl contact office notice board & log on to : www.malda.gov.in of www.wbtenders.gov.in

Sd/- (Malay Mukhopadhyay) ADM & AEO (ZP)

#### Office of the Guskara Municipality Guskara, Purba Bardhaman Ph: (03452)-255164/255767

e-Tender Notice

No:- WBMAD/GM/GREEN CITY/30/2017- 18(2nd Call) emo No:390/GM Pated: 03/03/2018 e-Tender is invited by this Municipal Authority for "Supply, Erection, fitting and fixing of decorative ornamental pole with outdoor LED luminaries and Bollards at different park, water body and important places for beautification work within Guskara Municipality Area (Under Green City Mission). Last date of submission tenders (Online) 12/03/2018 upto 1 P.M.

For Details visit: www.wbtenders.gov.in. & www.guskaramunicipality.co.in

SD/-, Chairman, Guskara Municipality

#### e-Tender Notice No. WBRDC4 DMBFCD/eNIT No 03/2017-2018

Online bids are invited for the following works from 08.03.2018 (2.00pm) to 14.03.2018 (3.00pm) Name of Work:- New Deep Boring of Office Building Machantala & Taldangra Timber Depot under Divisional

#### CHANDRAKONA MUNICIPALITY Chandrakona :: Paschim Medinipur Urgent Notice Inviting Quotation

Sealed tenders are invited from Manufacturer/suppliers/Dealer for supplying KSB/TEXMO submersible pumps to this municipality. For details pls. see the Notice Board of this Municipality. Last date of submission of quotation 12.03.2018 up to 2.00 p.m.

Chairman. Chandrakona Municipality



#### WEST BENGAL INDUSTRIAL INFRASTRUCTURE DEVELOPMENT CORPORATION DJ-10, SECTOR-II, SALT LAKE CITY, KOLKATA - 91

Notice inviting e-Tender(s)

Superintending Engineer, WBIIDC invites separate e-Tender(s) for the following works: 1) Tender Id: 2018\_HDC\_161028\_1 for construction of Internal Road at Malda Industrial Growth Centre, Phase-II under WBIIDC at Narayanpur, Malda- 732141 Corrigendum, Addendum or Cancellation if any, issued against this NIT will be published on wbtenders.gov.in or wbildc.org only. For details please visit: www.wbildc.org &

#### WB HIDCO

e-Tender notice No. 184 of 2017-2018 e-tender is invited for "Construction of boundary wall from Gate no 6 to Herbal Garden for protection of eco park in new town Kolkata. (Length=200 mtr) (Group- II)" in the manner as described in the detailed e-tender notice available on WBHIDCO website- www.wbhidcottd.com in e-tender portal Last date of Bid submission closing (on line)- 07.03.2018 upto 2.00 PM. Detailed may be seen in our website at www.wbhidcoltd.com.

ICA-T/1670(3)/2018

General Manager (Engg)-IV

#### District Health & Family Welfare Samiti Zilla Swasthya Bhawan : Saratpally Midnapur: Paschim Medinipur Tele: 03222-273204

No. DH&FWS/MID(W)AFHC/2018/991 Recruitment Notice

Date:05/03/2018

**第三条件** 

Application are invited from the Permanent resident (only Female) of Paschim Medinipur District for the under noted post. Name of the post: Lady Counselor-01(UR) Details will be available in the website of www.ebhealth.gov.in

Last date of submission of application:23/03/2018 through registered/Speed post only.

Member Secretary, DH&FWS & CMOH Paschim Medinipur



#### **Asansol Municipal Corporation** Asansol

Notice Inviting E-Quotation 2<sup>nd</sup> Corrigendum

It is notified that the intending E-Quotation will read the following in connection with E-quotation notice no. EQ-169/PW/Eng/ 2018

- 1. Sec "B" form-I & IV was missing earlier are enclosed herewith. 2. Bid submission closing (online) 15-03-2018 instead of
- 3. Bid opening date for Technical proposal (online) 17-03-2018 instead of 08-03-2018.

Superintending Engineer Asansol Municipal Corporation

# KOLKATA METROPOLITAN DEVELOPMENT AUTHORITY

Abridged e-NIT No.: 35/SE/C-II/RB/KMDA of 2017-2018 (2nd Call)

Superintending Engineer, Circle-II, R&B Sector, KMDA, Unnayan Bhawan, Block-'A' (7th Floor), Salt Lake City, Kolkata-700091 invites

मुख्य रूप से

क्ष श्री दास ने ा, जिसके लिए त गठन किया जायेगा. ताकि सके। मौके पर ब्लॉक कमेटी स्यों की कमेटी अन्य कर्मियों

में असंतोष देखा गया। सूत्रों की माने तो विवाद अचानक से बढ़ गया और तृणमूल कर्मियों में भारी आक्रोश व्याप्त हो गया। जिससे तनातनी की स्थिति बनी गयी। वहीं एमएमआइसी श्री भगत ने कहा कि बैठक के दौरान किसी भी तरह का विवाद नहीं हुआ और न ही किसी तरह की तनातनी हुई। उन्होंने कहा कि गुटबाजी के कारण ही रानीगंज ब्लॉक कमेटी को भँग किया गया था, इसे दोबारा गठित किये जाने की प्रक्रिया शुरू की गयी है।

#### माजपा जिला महिला मोर्चा की कमेटी गठित आसनसोल, 6

मार्च। भाजपा जिला महिला मोर्चा कमेटी बैठक निरूद्दीन रोड स्थित भाजपा कार्यालय में मंगलवार को



आयोजित हुई। जहां मोर्चा की जिला अध्यक्ष सह पार्पद आशा शर्मा ने जिला कमेटी की घोषणा की। 23 सदस्यीय कमेटी में अध्यक्ष आशा शर्मा, उपाध्यक्ष मधूमिता पाल, शर्मिष्टा मुखर्जी, सीमा मुखर्जी, मुनमुन भट्टाचार्य, महासचिव प्रजापति बाउरी, तनूजा सिंघो, कोषाध्यक्ष रजनी शर्मा संग चार को सचिव तथा 11 को सदस्य बनाया गया है। आशा शर्मा ने कहा कि जिला महिला मोर्चा कमेटी सदस्यों को उनके कार्य के बारे में विस्तार से जानकारी दी गयी है और केंद्र सरकार की योजनाओं की जानकारी जन-जन तक पहुंचाने पर जोर दिया गया है।

# पशु तस्करों की हो रही चांदी

# सीटीवी लगे तो होगा भय



में अवैद्य लोहा खपाया जाता है। हलांकि सीमा पर पैसा लेन-देन आम बात हो गवी है, दिन में भी ट्रैफिक गार्ड के जवान वसूली से बाज नहीं आते है। जिसका नमूना यहां कभी भी देखने को मिल सकता है। दिन में भी सड़क को काफी समय तक जाम कर दिया जाता है, कुछ वाहन चालक अत्याचार से भागने के क्रम में वहां स्थित बैरियर और ड्रम के परखच्चे तक उड़ा देते है। ऐसे में गाड़ियों के टूटे हुए कांच के दुकड़े सड़क पर जगह-जगह बिखरे देखे जा सकते है। अलबत्ता चोर और सिपाही का यह खेल किसी भी दिन बड़े हादसे को दावत दे सकती है। मामले को लेकर सेल्स टैक्स अधिकारी से पूछने पर की वे कुछ नहीं कहते, जबकि पुलिस बैरेक में रहने वाले जवान बताते है कि पुलिस लाइन आसनसोल से यहां दो एएसआइ व करीब 12 जवान की ड्यूटी दी जाती है, जिसे 15 दिनों में बदल दिया जाता है, ऐसे में पुलिसवालों को

बदली का भय नहीं रहता। अलबत्ता बैरेक में रोज दिवाली और होली रहती ममता द्वारा सोमवार को हुई प्रशासनिक बैठक में दिए गये निर्देश क्या यहां यों के नींद खोलने में सार्थंक होंगे या फिर आरोप लगाने वालों से ही सवाल डिब्रूडीह चेकपोस्ट पर वसूली के चल रहे नंगे नृत्य से साफ है कि न तो ता के निर्देश और न ही समता की परवाह किसी को है। सूत्रों की माने तो टीवी कैमरें यहां लगे तो कुछ बदलाव यहां हो सकता है, अन्यथा नहीं।

मान विकासिक स्मा and what with the two thoughts the करने के माध्यम से ही तैयारियां की जा रही है। मौके पर विधायक आलोक माझी, लखी महतो आदि मौजूद रही।

पिकअप वैन पलटा, दर्जनों घायल, दो की हालत गंभीर आसनसोल, 6 मार्च। बाराबनी थाना अंतर्गत गोरांडी बोलकुंडा ग्राम में की तेन की तैयारियों के लिए पिकअप वेन में सवार होकर कुछ ग्रामवासी गोराडी हाटतल्ला से लौट रहे थे, तभी केजिया मोड़ में ट्रक को बचाने के क्रम में पिकअप बेन पलट गया। पिकअप बेन में 18 लोगों में से 11 महिलाए शामिल थी। पुलिस की सहायता से सभी को आसनसोल जिला अस्पताल में दाखिल कराया गया। घायलों में कल्याणी घोष, लक्खी दास, मालती दास, तुलसी मंडल, चायना दास, नियती दास, सोष्टी घोष, चंदा दास, मिठू साधू, शुभद्र घोष, सबिता गोराई, गोराबनी गोप, अनिमेष चक्रवर्ती, चिटू खान, श्रमिनी घोष, चायना गोराई, मालती साधू, समाप्ति साधू, मालती बाउरी, संध्या घोष शामिल है। कई एक को प्राथमिक चिकित्सा के बाद छोड़ दिया गया, दो महिलाओं की स्थिति गंभीर देखते हुए उन्हें चिकित्सको की निगरानी में रखा गया है।

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लेनिन प्रतिमा तोड़ने के विरोध में माकपा की सभा आसनसोल/बर्नपुर, 6 मार्च। त्रिपुरा में चुनाव के बाद भाजपा को मिली जीत के बाद माकपा कर्मियों परहु ए हमले तथा लेनिन की प्रतिमा तोड़े जाने के विरोध में मंगलवार को माकपा व डीवाइएफआइ की ओर से शहर के हाटन रोड मोड़ और बर्नपुर बस स्टैंड में विरोध सभा आयोजित की गयी। हाटन रोड स्थित लेनिन प्रतिमा समक्ष आयोजित विरोध सभा में पार्षद विशमूल हक, सत्य चठर्जी, अशोक सामंत, तापस राय, जयराम शर्मा, मैत्री दास, सीमा हलदर, पारिजात बासु आदि मौजूद रहे। मौके पर विशमूल हक ने कहा कि त्रिपुरा चुनाव के बाद लेनिन की प्रतिमा तोड़ने के साथ माकपाइयों पर हमले किये जा रहे है। जिसे माकपा बर्दाश्त नहीं करेगी। बुलडोजर से उक्त लेनिन प्रतिमा को तोड़ा जाना, दशार्ता है कि भाजपा विभाजन की राजनीति करती है, सौतेलेपन की राजनीति करती है। जिसे जनता कभी बर्दाश्त नहीं करेगी। वहीं बर्नपुर बस स्टैंड में आयोजित सभा के दौरान पार्थ सेनगुप्ता, पार्षद प्रियव्रत सरकार, विधान राय, एसएम हसन, अरविंद घोष, अशोक मुखर्जी आदि मौजूद रहे। वहीं दुर्गापुर में माकपा से जुड़े लोगों में भारी रोष व्याप्त है। एसयूसीआड़ की और से मंगलवार को दुगार्पुर में सभा का आयोजन किया गया। जहां एसयूसीआइ कार्यकर्ताओं ने भाजपा कार्यकताओं के इस कदम के खिलाफ प्रदर्शन करते हुए एसडीओ कार्यालय में ज्ञापन सौंपा।

फारबेक्की देगा डीआरएम कार्यालय पर धरना आसनसोल, 6 मार्च। फेडरेशन ऑफ साउथ बंगाल चेंबर ऑफ कॉमर्स एंड इंडस्ट्री (फास्बेक्की) द्वारा आगामी आठ मार्च को व्यवसासियों की विभिन्न मांगो को लेकर आसनसोल रेल मंडल के डीआरएम कार्यालय पर धरना- प्रदर्शन किया जायेगा। जिसकी जानकारी मंगलवार को बर्नपुर रोड स्थित निजी होटल के सभागार में संवाददाता सम्मेलन के दौरान फास्बेक्की सदस्यों ने दी। मौके पर अध्यक्ष सुभाष चंद अग्रवाल, कार्यकारी अध्यक्ष आरपी खेतान, महासचिव एस दत्ता, सत्यनारायण अग्रवाल आदि मौजूद रहे। श्री खेता ने कहा कि फास्बेक्की की ओर से आसनसील स्टेशन से दिल्ली के बीच सुपरफास्ट ट्रेन शाम छह बजे से चालू करने, आसनसोल सीएसटीआर पारसनाथ, आसनसोल अहमदाबाद एक्सप्रेस तथा आसनसोल-चेन्नई सेंट्रल एक्सप्रेस को सप्ताह में तीन दिन करने, राजधानी एक्सप्रेस की आसनसोल स्टेशन में हाल्ट देने समेत अन्य मांगो के प्रति डीआरएम पीके मिश्रा को जानकारी दिये जाने के बावजूद डीआरएम के उदासीन रवैये के कारण फास्बेक्की सदस्यों द्वारा डीआरएम कार्यालय समक्ष धरना-प्रदर्शन करने का निर्णय लिया गया है।

#### **Asansol Municipal Corporation Notice Inviting E-Quotation**

2<sup>nd</sup> Corrigendum

It is notified that the intending E-Quotation will read the following in connection with E-quotation notice no. EQ-169/PW/Eng/2018

- Sec "B" form-I & IV was missing earlier are enclosed herewith. Bid submission closing (online) 15-03-2018 instead of
- Bid opening date for Technical proposal (online) 17-03-2018 Sd/-

Superintending Engineer Asansol Municipal Corporation

AWA3 07/08/08

ise visit at www.wbtenders.gov.in for participating eTender No. 28 dated 05/03/2018 floated by Jhunika Gram Panchayat, last date of submission

19,13/2018

Sdl-Pradhan

Jhunjka Gram Panchayat Chhaina: Bankura

A BELL OF WILLIAM HOLD THE REAL PROPERTY.

Notice Inviting E-Quotation 2nd Corrigendum

It is notified that the intending E-Guotaffon will read the following in connection with E-quotaffon notice no. EQ-169-PW-Eng/2018 dated 31

Sec 'B' form-18 IV was missing earlier are enclosed horsewith Bid submission dosing forline) 15-83-2018 instead of 05-03-2018.
 Bid opening date for Technical propesal (online) 17-03-2018 instead of Sdi

Superintending Engineer Asensol Municipal Corporation

#### BHARAT HEAVY ELECTRICALS LIMITED

POWER SECTOR - FASTERN REGION POWER SECTOR - FASTERN REGION PLANT - SECTOR - REQUIREMENT - REGION - REGION - RECIONAL REGION - RE

E-PROCUREMENT NOTICE

BHEL invites 810 from reputed blidders through E-Procurament portal https://bhalagat.bustuncifich.io.only for "Engaging Edistment of agency for Supply of Medicines for 82 ftwol years at SHEL: PEER'S Rolksis Office" E-Tender Engaley 86 PEEP PUR HR 170(XI) 170 (ENG.17/PP.0015-PUR.161) Old. 07/03/2018. Last Date of Submits from for complete offer is 17/03/2018 (15:00 Hrs.).

Last Date of Submission for complete offer is 12.03/2016 [15:00 Hrs.].

For distinct of Pre-Confidence ordered etc. clease with http://www.jantermanter.com
or http://www.bhcl.com/f/CPP Portis// https://bbbelepe.huySunction.is// on 8 stree
or/ov/2018 A3 Conference, Addenda, Amendatents, Ture Extensions, Clarificatories,
etc. will be tracted on afterested exhibition only Bidder strends received, well website(a) to
the promoselors uncentral Those will be no publication of the same should receive or
any other media. For biffur contractories, 4 any, clease contact underlined
or any other media. For biffur contractories, 4 any, clease contact underlined
the addition of audion Tel. No.(3) & Majorison Helpdath. Tis. No. 033-6521777
(03) Attro-5:30 PM for e-procurement apportance. For & on borralf of BHEL Dy Manager (Purchasis)

#### PUBLIC NOTICE

The State Level Environment Ampact Assessment Authority, Kamataka, constituted by the Ministry of Environment & Forests, Government of India, vide its letter No.SEIAA 135 CON 2017 dated 28th February, 2018 has accorded Environmental Clearance to M/s. BCV Developers Private Limited for construction of Residential Development Project at Survey No 598/142, Devanaballi Village, Kasaba Hobli, Bengaluru Rural District as por applicable provisions of EtA Notification, 2006 and amended thereafter.

Copy of the Clearance letter is available with the Kamataka State Pollution Control Board and may also be seen on the website of the SEIAA, Kamataka at http://selsa.karnataka.gov.in/. http://setab.kar.nic.in & http://environmentclearance.nic.in

This Public Notice is issued in compliance with the conditions laid down in the above Environmental Clearance.

Date: 02" March, 2018



# एनएमडीसी लिमिटेड NMDC LIMITED

बोआईआएम बचेली काम्मलंबस

BIOM BADHEM COMPLEX

BACHEM DIST - DANTE ADAICH PATTISGARM) 494 553

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Open Tender Notice

NIMDC Limited, BIOM Bacheli Complex imites e-bids for supply of following items:

Details

Tender No.

1. Cylinder G P Hoist for CAT-777D Model Dumper

(ET/894)

(ET/899)

2. Dipper Assembly for Bucyrus 182M Model:

Electric Rope Shovel

Prospective bidders may download the tender documents from website: http://www.mstcrcommerce.com/ eprochome/nmdc/buyer\_login.jsp and upload their offer on the portal as per instructions provided in tender document.

Jt. General Manager (Materials)



#### STEEL AUTHORITY OF INDIA LIMITED CORPORATE PLANNING DEPARTMENT

Adv. No : SAIL/EF/Schools/2018/01

Request for Proposal for Lease cum License, arrangement for Company Gymed Schools in Steel Journships at Bhilai, Bokara and Bumpur

Steel Authority of India Limited (SARE), a Maheratha PSM under 35 nisny of Steel, Greenment of India poites Techno Financial Birds from explain pointes to heave cum ticense arrangement for specified Company Corned Schools in Steel Technologies Bhilar, Bolaro and Buttour

tact date for submission of bid is 201 April, 2018. The set electerms and confidens of the Request for Piccocal (RFF) along with requisite formous and mode of submission of hid are accounted at SALL collected www.scattenders.co.in. Interested codies may please note that all future notifications/scattered durations and needs related to this REP will be eploaded on website wawsalltes ders co.in brilly Consect Person Shiri Noeral Sharma, General Managari, Corporate Parzong) (Cell 1731-11-2456)739)

Reportered Office: Ispat Bharvan, Life Road, New Delhi 110 003 Conjecta Microry Numbers 123 10500 197 (Bolling 197) assembly www.cash.com

there's a little bit of SAIL in everybody's life



#### STEEL AUTHORITY OF INDIA LIMITED Rourkela Steel Plant

Rourkela - 769 011, Odisha, India

Expression of Interest for Up gradation of Automation system in Existing Casters I & II of SMS II at its works at Rounkela Steel Plant.

EDI No:PyPra/EOV5MS II /Automation/14 Last Date & Time of Tender submission: 2.50 PM on Dtd Dtd. 30.03.2018. Tender Notice for "Frocurement of PAVay Fittings for rail track of New Hot Strip Mill.

Tender Notice No.: 047/697/1692000033/01/00/16 Last date & time of tender Submission: 0230 P.M. on Dtd. 20.03.2018 Tender Notice for \* Operation and Maintenance support during the trial rims, testing and commissioning of facilities a TMT Bar Mill at Jsv., lagdishpur. Tender No. P/Proj/SAIL-ISU/OSM/15 Last date and time of tender submission is up to 2.30 PM on Otd. 16.03.2018 Tender Notice for "SUPPLY, ERECTION & COMMISSIONING OF BOOM BARRIERS AT 5 NOS. OF LEVEL CROSSINGS OF RSP

Dtd. 2702.2013 Tender No. 042/697/1790000112/13 Did. 22,03,2018

Last Date & Time of Tender Submission: 02:30 PM on Corrigendam to Tender Notice for "Re-routing of Destrical cable to facilitate Rail/Road connectivity to New HSM with existing Flant (Fkg. No.-11-2). Tender Notice No.: Proj/MM/011/Pkg-II(E)/05

Extended Date & Time of Tender Submission : 02:30 PM on Dtd. 14.03,2018 Corrigendum to Tender Notice for Dismanting & Relocation of existing Vo-2 & completion of Vo-3 for existing Track Hopper of OBBP (Package No. 130) in RSP .

Dtd. 23.11.2017 Tender Notice No.: Proj/MM/011/732/75 Extended Date & Time of Tender Submission (02:30 PM) Did. 16.03.20 8

Corrigendum to Tender Notice for "Installation of Microprocessor based Addressable Type Intelligent Fire Detection & Alarm System at TOP-II of ESP\* Tender Notice No.: Proj/MM/317/1490000101(R)/72 Extended lest Dt & Time of Tender submission up to: 2,30 PM on Dtd . 14.03.2018

Corrigendum to Tender-Notice for "Appointment of Expert Agency for Implementation of Zero Uquid Discharge at Rouckela Steel plant

Tender No: P/Proj/Consultancy/71D/77 Extended Last dt atime of tender submission 2.30 PM on Dtd. 14.05.2018 For details a downloadable tender document log on to our SAIL Website

https://www.sailtenders.co.infumit RSP\_Category Contracts\*)
Registered Office: Ispat Bhawan, Lodi Road, New Dethi 110 003
Compose Identity Humber 12710-011973COR06434, Walteiter www.sill.co.in

Business standard => 07.03.18



Asansol Municipal Corporation Asansol:: Paschim Bardhaman NOTICE INVITING E-QUOTATION

Memo No. 2578/PW/Eng/18

Date: 0,5/03/2018

#### 2nd CORRIGENDUM

It is notified that the intending E-Quotation will read the following in connection with E-qotation notice no. EQ-169/PW/Eng/2018 Dated 31.01.2018

- 1 Sec " B"Form-I & IV was missing earlier are enclosed herewith.
- 2 Bid Submission closing (online) 15.03.2018 instead of 05.03.2018
- 3 Bid openning date for Technical Proposal (Online) 17.03.2018 instead of 08.03.2018

Superintending Engineer Asansol Municipal Corporation

Memo No. Copy to :-

Date

Superintending Engineer

Asansol Municipal Corporation

- 1 The Secretary, U.D. & M.A. Department, Government of West Bengal
- 2 The Director,-SUDA, ILGUS Bhawan, Salt lake City, Kolkata
- 3 The District Magistrate, Paschim Bardhaman.
- 4 The Sabhadhipati / Chief Executive Officer, Paschim Bardhaman Zilla Parishad, Paschim Bardhaman
- 5 The Commissioner, Asansol Municipal Corporation.
- 6 The Chief Engineer, M.E. Directorate, Bikash Bhawan, Salt Lake City, Kol-700091.
- 7 The Additional Chief Engineer, West Circle, M.E.Dte., BikashBhavan
- 8 The Chief Engineer, Asansol Municipal Corporation.
- 9 The Superintending Engineer, West Circle, M.E.Dte, Bardhaman
- 10 The Superintending Engineer, Asansol Municipal Corporation
- 11 The Media Officer, Department of Information and Cultural Affairs, Writers Buildings, Kolkata-700001.
- 12 The District Information and Cultural Officer, Paschim Bardhaman
- 13 The Executive Engineer, Asansol Division, M.E.Dte. With a request to present at the time of scheduled
- 14 The Finance Officer, Asansol Municipal Corporation
- 15 The R.O. Asansol Municipal Corporation
- 16 O.S. for publication in News Paper (Bengali/English/Hindi)/Notice Board
- 17 Office Copy

Superintending Engineer Asansol Municipal Corporation



# SECTION - B FORM -I PRE-QUALIFICATION APPLICATION

То	PRE-QUALIFICATION APPLICATION
Secretary	
Asansol Municipal Corpo	pration
Ref: - Tender for	
	(Name of work)
	N.I. B. No.:
Dear Sir,	
all the necessary information made by me / we on be the capacity	atutory, Non statutory and NIT documents, I /we hereby submit ation and relevant documents for evaluation. The application is half of in duly
authorized to submit the	order.
behalf of the group of firm	admissible by law in respect of authority assigned to us on as for Application and for completion of the contract documents are interested in bidding for the work(s) given in Enclosure to that:

- (a) Tender Inviting and Accepting Authority/Engineer-in-Charge can amend the scope and value of the contract bid under this project.
- (b) Tender Inviting and Accepting Authority/Engineer-in-Charge reserves the right to reject any application without assigning any reason.

Enclose: - e-Filling:-

- 1. Statutory Documents
- 2. Non Statutory Documents

Date: -

#### Signature of applicant

Including title and capacity in which application is made.

#### FORM - IV

# DEPLOYMENT OF MACHINERIES (IN FAVOUR OF OWNER / LESSEE):-

(Original document of own possession arranged through lease deed to be annexed)

(If engaged before Certificate from E.I.C. to be annexed in respect of anticipated dated of release of Machineries.)

Name of Machine / Instrument	Make	Type Capacity	Capacity	Motor / Machine Engine No. No.	Machine	Possession Status		
					No.	Idle	Engaged	release If Engaged
				i.				
							-	

For each item of equipment the application should attach copies of

- (i) Document showing proof of full payment, (ii) Receipt of Delivery,
- (iii) Road Challan from Factory to delivery spot, is to be furnished.

Signature of applicant including title

and capacity in which application is made.

# genden Byines Standard ER - 169/PH/ED/18 dt 31-01-18. Me meno-25/0/e/PH/Anclls.

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ision No. les e NIT 7-18 for oration of under NH 711, in the ta, During 7-2018ender id: 59456. 1 sing date till 12.30 may be

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#### PUBLIC NOTICE

Notice is heavily given to the Public by as Mrs. Solerta Sec & the Screen Secrets from corners of Flor Nos., St.3 & 504 in "Misrori Briding smalled on Pleasures No. 30, Raise Sanzait Bond, Robata- 200027, that the We could of the said lats have been THE REPORT OF THE PARTY.

All pursons his harsty priorried, admirried or carry out any management with anyone or or the late of the half expected at the case of the half expected at the deeds force we already subject that and that it may prove to be pass lawing may upon the relation described as any rails to whatevery, in maged of the cold flats, you are heighty resourced to make his state furtien in writing elect with the destructly post theed to us the address, when it's goes from the date of publication harsof, falling which the pair of P. CUIVER! Demails what is complete with the part time and the Catraday, was to be enable have been considered as waves

Bunda Sen (501) Tomps Sen (508) SAUSTERAN DI KANSE DI PROCESSIONES Finds Fafesta

#### TENDER NOTICE

Abridged N.I.e.T. No. 19 (13) No. 2018 PWD 159167 Executive Engineer, Uttar Dinapur Division, PWD is hareby invited for and on behalf of the Governor, State of Went Bengal for one no. Civi! work under Utlar Dinajour Division, PWD in the district of Uttar Dinajpur during the year 2017-2018 from Bonafied Outsider agencies Last date of online submission of Sid 05.03.2018 upto 04.00 PM. For details please log on to website http://wbtenders.gov.in.or enquire at this office notice

Corrigendum notice(s) of this/these NieT(s) if any, will only be published in the above website.

Executive Engineer, Uttar Dinajpur Division, PWD

EXTENSION OF DATES

Ref. No.: #BPDCI\_/Tend-Adv/CC/17-16/451/5TPS Onto: 03.02.2018 NIT HOL: WBPDCL/STPS/NIT/E1436/17-18

The Bild Submission End Cate for Notice inviting F-Trinder puteration in this management are stood received Ref. No. for Procurement of Seal Assy for Cold Air Gate Overheading of Unit-6 in July 1315 under BND, Sealedth TPS, The WildPDCU, is beroby exhaused to 105.03.3018 up to 15.00 for Economic Person. D. Bhafactonya BGM (NRC). Tet No. 10257 25014 for datas peace. https://www.enders.gov.in ICA 1 149 (65/2018

#### (e-Quotation No. 65/SEEC of 2017-18 dated 22.02 18) Government of West Bennal

Office of the Superintending Engineer, Eastern Circle, PHE Die FNB House (4In Floor), 18A, Brahoume Road, Kodkota-1

#### Tender Reference No WBPHED/SE/EC/NieO-65/2017-18 . Tender ID: 2018 PHED 157935 1)

e-Tenders in WBF 2912 are invited for the work: "Construction of 000 m3 capacity RCC Over Head Water Reservoir having 20m staying helpful at Humaipur Water Supply Scheme, Block Barasol II under Barasat Division, PHE Dite," Bid Sufemission Closing Data (Online) - 23,03,2018 at 5.30 pm

Further details are available in the website - http://wbtendors. gov.in/nicgep/app

KOLKATA METROPOLITAN DEVELOPMENT AUTHORITY

c-NIT No.: SE(GRWW, Ph-I)/1W-01/16-17/167

a Tenders are invend by the Superintending Engineer (GRWW, Phase

S.S. Put no School to Amaria Negar Jubis Chalet Club winin Milberthica Mirrogardy SE GRWW, PH-47143 of 2017-15; 84,72,7457 (b) - Dokom Ch. 870.00 m to Ch. 1090 00 m maus und frem S.S. Purkle School to Americ Hagar Juba Shakb Caus. IDa., 17-44; ₹ 9,80,500; Earnest

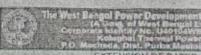
Money(T): 7% of the quoted rate for each trader. Cost of Tender Paper. 17504 for each lander. Time of Completion: 30 days for each tender.

Last Date & Time of Online Submission of Bids: 20.03.2018 up to

is Bidhangaris Kotkata-700066 from reliable, imparenced media of magnitudes for the following work. St. No.; Name of Work Tender No. & Estimated Cost(f) are as follows: (a) Financial Concrete Road Restoration from Ch. 740 09 m to Ch. 670 09 m reservors from

ICA-T1532/3)/2018

Superintending Engineer Eastern Circle PHE Dtc.



EXTENSION OF DATES

Ref. No.: WBPDCL/Tend-Adv/CO17-18/42/XTPS Detert 20,012018

Ref. NiT No.: WBPDCL/KTPS/NiT/E1182/17-18

This Eld Betimes ign End Date to Nitro helling E-Tender in the Left nitro merspaper with above continued Ref. No. for Annual Rate Contract for providing contraction And introcerning recovering the North and Antical maintenance work in OP14 area including 301027201450 KV Switch Yard under EACOP1, KTPS is being to receive to 21,012016 or 1000 the Compact Person A. Guha Tackum De Marager (CO). To! No. 1823030276 if or details be not visit https://www.neders.gov.in 1CA T 1482(2)(2018

#### WB HIDCO

#### e-Tender notice No. 177 of 2017-2018

a tender is invited for Carriage earth filling at Backside of Exhibition area "D" within Eco Park, New Yown, Kelliala, An the manner as described in the detailed e-tender notice evaluable on WBHIDGO websile www.wbhildcoltd.com in a lander portal Last date of Bid submission closing (online) 03.03.2018 upto 2.00 P.M. Detailed may be seen in our website at www. wbhldcolld.com

ICA-T1539(2)/2018

General Manager (Engg)-IV

#### Asansol

Notice Inviting E-Quotation Moma No. / 2510/0/PW/Engris date: 23-02-2014

CORRIGENDUM

It is notified that the intending E. Oustation will used the hitching in connection with E-quotation Notice No. EG-169/PVED-vs2018 dated

1. Topen Technology and first technology should exists and presently working in India or should instead of "Agency should be scense holder of Nisargauna which is developed by BARC".

2." IV and Mall allowed" instead of "Bids in the fops of JV and Mall are not eligible

3. Bis submission closing (online) 05-03-2018 Instant of 26-62 (2018 4. Big operating data for Tuctinical proposal (coline) 07-03-2018 united of 28-02-3018

> Superintending Engineer Asensot Municipal Corporation

#### e Tender Notice

Tender are being inwised by the undersigned on behalf of the Briant of Bankere Municipal Councilors, Bankura Mirridga by from the Do spied outside contractors for St. No. 1. Extension of Deskeroust regresses each at Romean hidge at 4 within was no 12 under Fanture Minicipally (Phill) St No.2 Extración of Candillasti per a calcular bypose area bother era are 7 under Bankara Muragouth (Pfell); and \$1.50 J

#### WE HIDCO

#### e-Tender Notice No. 178 of 2017-2018

e-tender is invited for "Carriags each filling at extended podon of Coll course within Eco Park, New Yown, Kokata. (Part-VII) "In the manner as described in the detailed ottender notice available on WBHIDCO website www.wbhidcoltd.com in e-tender portal Last date of Bid submission closing (chline) - 03.03.2018 upto 2.00 P M Dalated may be seen in our website at www.wbhidcoltd.com General Manager (Engp)-IV

ICA-T 1540(3)/2018

The Executive Engin Jor. Heaghly Hintway Division No. 1. P3V (Roads) Directorate invites e Tender or Lee percentage s admiss on Different add d wirks vide Jender ID N., 018 SH 168400 The 2018 SH 168406 7 of 2017 (s cst 3.88 or subsets and Madicinate only is 70000 but 6 201 13 Lines \$29 FM. All decuments can be speniouslised by m

# गी माइक-डीजे पर पाबंदी



लगाने का निर्णय लिया गया। जिसके लिए सोमवार से ही हीरापुर थाना की ओर से छापेमारी शुरू कर दी जायेगी। माध्यमिक परीक्षा को ध्यान रखते हुये माईक तथा डीजे बजाने पर पुरी तरह से पाबंदी होगी।

e

ना

H

आपसी माईचारे से मनाएं होली : मलय

जामुड़िया। जामुड़िया थाना अंतर्गत केंद्रा फाड़ी पुलिस की ओर से होली को लेकर शांति कमेटी की बैठक आयोजित हुई। बैठक में फाड़ी प्रभारी मलय दास ने कहा कि होली के दौरान हुड़दींगयों के साथ पुलिस सस्ती से पेश आयेगी। सभी को मिलकर आपसी भाईचारा और शांति के माहौल में त्योहार को मनाना चाहिए। होली को लेकर पुलिस की ओर से भी सुरक्षा के पुख्ता इंतजाम किये गए है। होली में अराजक तत्व हुड्दंग न मचाये, इसके लिए पुलिस की गश्ती भी रहेगी। मौके पर जामु-ड़िया थाना प्रभारी आशीष सिन्हा, प्रदीप बनर्जी (मुकुल), पंचायत सदस्य उमेश राम, अनूप बनर्जी, जगदेव यादव आदि मौजूद रहे।

रोगी जे लगायी फांसी आसनसोल। दुगांपुर के फरीदपुर थाना अंतर्गत गौरवाला निवासी वंदना धीवर (35) बहुत दिनों से कैंसर रोग से ग्रसित थी, जहां मानसिक तनाव में उसने पंखे से फांसी लगाकर आत्महत्या कर लिया। पुलिस ने शव को गोस्टमार्टम के लिए आसनसोल जिला अस्पताल भेज दिया।

विभिन्न श्रमिक संगठनों ने फूंका कोयला मंत्री का पुतला



सालानपुर, 27 फरवरी। इसीएल के सालानपुर एरिया अंतर्गत मोहनपुर कोलियरी में सिक्रय विभिन्न श्रमिक संगठनों ने संयुक्त रूप से प्रदर्शन किया और केंद्रीय सरकार की नीतियों का विरोध करते हुए कोयला मंत्री पियूश गोयल का पुतला फूंका। मौके पर एटक के राजेश सिंह, सत्येंद्र सिंह, सीटू के संजय बनर्जी, के राय, बीएमएस के विजय कुमार,

रचएमएस के बीबी दास, सुरेश साव, योगेंद्र यादव आदि संग यूनियन व श्रमिक मौजूद है। एटक नेता राजेश सिंह ने कहा कि केंद्र सरकार श्रमिक विरोधी नीति अपनाते हुए फोलियरियों का नीजिकरण करने में तूली है, जिससे इन श्रमिकों का जीवन अंघकारमय हो जाएगा। केंद्र सरकार पुंजीपतियों की सरकार बनकर रह गयी है। आम वर्ग से केंद्र सरकार को कुछ लेना-देना ही नहीं है। ऐसा रहा तो आने वाले दिनों में श्रमिक वर्ग केंद्र सरकार के विरूध कड़ा आंदोलन करने को विवश होगा।

ठीका श्रमिकों की मूख हड़ताल जारी नेल ग्रोथ वर्क्स कुल्टी प्रबंधन के अंतर्गत जल संयंत्र में कार्य

वराकर। सेल ग्रोथ वर्क्स कुल्टी प्रबंधन के अंतर्गत जल संयंत्र में कार्य करने वाले 20 ठेका श्रमिकों को कार्य से बैठा दिये जाने के विरूद्ध में इंटक के बैनर तले काजल दता के नेतृत्व में चल रही भूख हड़ताल मंगलवार को भी जारी रही। इंटक प्रतिनिधि काजल दता ने कहा कि तीन दिनों तक ठेका मजदूर कांग्रेस ने जल संयंत्र के पास धरना दिया। सोमवार सेकुल्टी कारखाने समक्ष धरना एवं अनशन शुरू किया गया है, लेकिन सेल प्रबंधन की ओर से कोई पहल नहीं की गयी, जिस कारण मंगलवार को भी यह जारी रहा। उन्होंने कहा कि जिन श्रमिकों को कार्य से निकाला गया, उन्हों लेना होगा। अन्यथा कारखाना गेट समक्ष आत्मदाह करेंगे।

दुर्गापुर, 27 प्रकार । दुर्गानुर व जीर्णिएल में बीते दिनों माकपा के कई संगठनों द्वारा किये जा रहें प्रदर्शन के दौरान कथित तौर पर तृणमूल के दर्जनों समर्थकों ने हमला किया था, जहां माकपा विधायक संतोष देव राय समेत कई अन्य घायल हुए थे। माकपा की ओर से सात नामजद अभियुक्तों के साथ अन्य 25 के खिलाफ प्राथमिकी दर्ज कराई थी। माकपा के वरिष्ठ नेता सुजल चक्रवर्ती के साथ तृणमूल जिलाध्यक्ष विधायक शिवदासन उर्फ दासू भी घायल विधायक से मिलने पहुंचे थे। दासू ने कहा था कि घटना से जुड़े लोगों को पुलिस गिरफ्तार करेगी। मुलाकात के महज कुछ घंटों के अंदर ही पुलिस ने तृणमूल समर्थक नयन मालाकर को गिरफ्तार कर लिया। गिरफ्तार नयन वार्ड संख्या 31 के लेबरहाट इलाके में स्थित डीपीएल आवासीय इलाके का निवासी है। विधायक पर हुए हमले के आरोप में गिरफ्तार तृणमूल समर्थक नयन को लेकर फिर एक बार राजनीतिक सरगर्मी तेज हो गई है।

एएसपी के निजीकरण के खिलाफ सीइओं का किया घेराव दुर्गापुर, 27 फरवरी। दुर्गापुर स्थित एलॉय स्टील प्लांट को निजी हाथों में दिए जाने के केंद्र सरकार के फैसले के खिलाफ तृणमूल और उसके समर्थित श्रिमिक संगठन आइएनटीटीयूसी द्वारा लगातार प्रदर्शन किया जा रहा है। सोमवार को दुर्गापुर रेलवे स्टेशन पर करीब 40 मिनट तक रेल रोककर प्रदर्शन करने के बाद मंगलवार को प्लांट के राइओ का घेराव किया गया। अध्यक्षता तृणमूल के जिलाध्यक्ष विधायक शिवदासन दासू, कार्यकारी अध्यक्ष उत्तम मुखर्जी ने की। मंगलवार को सैकड़ों एएसपी कर्मियों के साथ ठेका कर्मियों और उनके परिजनों ने भी इसमें हिस्सा लिया। तृणमूल कर्मियों और नेताओं ने केंद्र सरकार के खिलाफ नारेबाजी करते हुए एएसपी को निजी हाथों में दिए जाने के फैसले को वापस लेने का आह्वान किया।

रंग लगा-मिठाई खिला मनाया ट्रैफिक सुरक्षा सप्ताह बर्दवान, 27 फरवरी। अनोखे प्रयास के तहत बर्दवान ट्रैफिक पुलिस अधिकारियों ने मंगलवार को हेलमेट विहीन मोटर साइकिल चालकों को मिठाई खिलाकर और रंग लगाकर उन्हें सचेत किया। यही नहीं, इस दौरान हेलमेट विहीन चालकों से फाइन भी काटा गया। पूर्व बर्दवान जिले के कर्जन गेट इलाके में आयोजित इस सड़क सुरक्षा सप्ताह के लेकर ट्रेफिक ओसी चिन्मय बनर्जी ने बताया कि हम लोग चाहते हैं कि इस बार की होली सभी के लिए सुरक्षित हो, इसीलिए जिला पुलिस की ओर से हम लोगों ने यह तरीका अपनाते हुए चालकों को सचेत करने का प्रयास किया है।

पीएनबी घोटाले के प्रतिवाद में तृणमूल ने निकाला जुलूस बर्दवान, 27 फरवरी। देश से 11 हजार 400 करोड़ रुपये लेकर भागे नीरव मोदी और उसका साथ देने वाले पीएनबी अधिकारियों के खिलाफ देशवासियों में खासा उबाल है। जहां देशवासी इसके खिलाफ नाराजगी व्यक्त कर रहे हैं, वही विपक्षी राजनीतिक दल के नेता और कार्यकर्ता इस मुद्दे को लेकर केंद्र सरकार को घेरने में लगे हुए हैं। इसी तरह का आंदोलन मंगलवार को पूर्व बर्दवान जिले की मेमारी इलाके में भी देखने को मिला। जहां तृणमूल से जुड़े करीब आधा दर्जन से अधिक श्रमिक संगठनों के सदस्यों ने पंजाब नेशनल बैंक में हुए इस घोटाले के खिलाफ नारेबाजी करते हुए जुलूस निकाला।

#### **Asansol Municipal Corporation**

Notice Inviting E-Quotation

Memo No. 2510/O/PW/Eng/18 date:- 23-02-2018

CORRIGENDUM

It is notified that the intending E-Quotation will read the following in connection with E-quotation notice no. EQ-169/PW/Eng/2018 dated 31-01-2018.

"Open Technology and that technology should exists and presently working in India or abroad" instead of "Agency should be license holder of Nisargruna which is developed by BARC"

2. "JV and MoU allowed" instead of "Bids in the form of JV and MoU are not eligible"

3. Bis submission closing (online) 05-03-2018 instead of 26-02-2018.

 Bid opening date for Technical proposal (online) 07-03-2018 instead of 28-02-2018.

Memo No. 494-G Dated : 26/02/18

Superintending Engineer Asansol Municipal Corporation



उस क्षेत्र प आत्माओ स्वयं परि सष्टी परि विश्व पी शिक्षा परे विभन्न पढ़ा रहे । राजयोग वीव्केव कहा की को अध्य जो इमरी बेरमो मो बीच संदे यह शिवि भमिका ह नीरज भा प्रमिल्ना ब सत्येन्द्र भ थे। अवैध श पलिस व जम्आ/

समदायव लेकर मंग में बीडीउ अध्यक्षता गई। जिर डीएसपी । पुलिस नि चंद्रशेखर में थाना ग डीएसपी मसकेट्री जाहीर व मुखिया व प्रकट कि कुमार क दिने आए बच्चे पव आचरण साथ ही। द्वारा नजः कोई भी नहीं होने शयमचंद्र चैक चैरा

साउंड प

डीजे संग

पर उप

कुमार

रोहित

पास

सा



- টুইটার

ম্ব্যাঞ্জেক্টার : মাত্র কয়েক সেকেন্ডের একটা ভিডিও-বার্তা। তাতেই মোটামটি নডে গিয়েছিল খেলার দনিয়া। "একটা ফুটবল দলে সই করলাম। কোন দলে জানতে হলে মঙ্গলবার জিএমটি স্কাল অটিটার এখানে নজর রাখতে হবে।" এইই ছিল বোল্টের মুখের কথা।

গত বছর লন্ডনে আন্তর্জাতিক আ্রাথলেটিক্স থেকে অবসর নেওয়ার পর থেকেই বোল্ট ফুটবলে আসছেন, এমন একটা খবর ঘুরছিল। এমনকী, বোল্ট নিজেও ম্যাক্ষেস্টার ইউনাইটেড বা বরুশিয়া ডর্টমুণ্ডের দিকে ঝুঁকেছিলেন। তাই ওই কয়েক সেকেন্ডের ভিডিওর পরই রটে



বক্তব্য রাখছেন বোল্ট।

গিয়েছিল, ম্যান ইউতে যোগ দিচ্ছেন বোল্ট। শেষ পর্যন্ত খবরটা দাঁড়াল এই — ওচ্চ ট্রাফোর্ডেই খেলবেন বোল্ট। ম্যাম্বেস্টারের ঘরের মাঠ।

— টইটার

তবে ম্যান ইউর হয়ে খেলবেন না। ইউনিসেফের সকার এইড ম্যাচে বিশ্ব একাদশের নেতৃত্ব দেবেন। প্রতিপক্ষ রবি উইলিয়ামসের (পপ গায়ক) ইল্যোন্ড একাদশ। খেলা জুনে।

জিএমটি সকাল আঁটটা মানে ভারতীয় সময় দৃপুর সাড়ে বারেটা। বোল্ট বললেন, "পেশাদার ফুটবলার হিসাবে মাঠে নামা আমার স্বপ্ন ছিল। সেই হিসাবে জুনে ওক্ত ট্রাফোর্ডে ফুটবল কিংবদন্তীদের সঙ্গে খেলতে নামা মনে রাখার মতো একটা বিষয়।"

বোষ্ট খেলবেন মানেই হইচই ফেলার মতো একটা বিষয়। কেমন খেলবেন জামাইকান তারকা ? বোল্টের একটা ইন্টারভিউ এই ব্যাপারে গোটা মঙ্গলবার জড়ে দেখানো হল বিভিন্ন চ্যানেলে। বোল্ট বলছেন, "...কখনই বলব না দুনিয়ার সেরা ফুটবলার হওয়ার মতো জায়গায় আছি। তবে ওয়েন ক্রনিকে হয়তো ছুঁতেও পারি। তবে যাই হোক না কেন, আমার দল হবে অপ্রতিরোধ্য।"

Internal electrical works including fitting & fixing electro mechanical equipment's for the single storied Building of U-PHC Within Kalna Municipality under NUHM Scheme" E-Tender are invited, Tenderer interested to send their quotation are requested to please see the following T.R. Number -WBMAD / KALNA NUHME/NIT -27/17-18 Tender ID-2018 MAD 159178\_1

Chairman Kalna Municipality

The Executive Engineer, Krishnagar Division, Social Sector, P.W. Date. Govt. of W.B. Invites e-tender for 3

(Three) nos. work. Ref No. Tender WBPWD/SS/EE/KNG-43(e)/2017-18

(1) Repair and upgradation of existing staff quarters at Chakdaha State General Hospital, Nadia Tender Rs.

2018\_CB\_158971\_1 24,08,114.00

(2) Repair and upgradation of ward corridors, toilet block of male & female ward, site cleaning and beautification of Chakdaha State General Hospital, Nadia in the year 2017-18. (Phase-II) Tender ID 2018 CB\_158971\_2 Rs. 15,48,875.00

(3) Repair and Renovation of 'ALAPAN' Meeting Hall at S.L.F Kalyani, Nadia. Tender ID: 2018\_CB\_158971\_3 Rs. 11.58.887.00

Bid Submission closing date is 14/03/2018 upto 2.00 P.M for each NIT. Details are available in the website https://wbtenders.gov.in.

Department, Govt. of West Bengal" from bonatied and resourceful agency having credential of similar nature of work as per Government rules. Starting date of submission of bid 28.02.2018 at 10.00 am. Last date submission of bid (online) will be on 21.03.2018 at 10.00 am. Other details may be seen from the website http://etender.wb.nic.in & www.hrbc.in

Sd/-Joint Project Manager (Works)

**Howrah Municipal Corporation** Office of the Borough Committee-V 14, Gopal Lal Chowdhury Lane, Howrah - 711103 Ph: 033-2688-0031

NIT No :- T/003/A.E./Br-V/17-18

Date: 28.02.2018

#### TENDER NOTICE

Sealed Tenders/Quotations are hereby invited from the reliable, resourceful, bonafide contractors having Trade License, P. Tax, Income Tax, GSTIN No. along with photocopies of PAN Card and having experience of similar work, not less than 1/3rd of the contract value applied in this tender within last 3 yrs. for execution of civil, electrical, plumbing work, etc. under different Wards of the Office of the Borough Committee- V, H.M.C. The details of Tender can be obtained during office hours at this office.

The last date of application is 07.03.2018 Sd/-

The Assistant Engineer and in-charge Borough Officer, Office of Borough Committee - V, H.M.C



#### Asansol Municipal Corporation Asansol

Notice Inviting E-Quotation Memo No. 2510/O/PW/Eng/18 date : - 23-02-2018 CORRIGENDUM

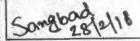
It is notified that the intending E-Quotation will read the following in connection with E-Quotation notice No. EQ-169/PW/Eng/2018 dated 31-01-2018

1. "Open Technology and that technology should exists and presently working in India or abroad" instead of "Agency should be license holder of Nisargruna which is developed by BARC"

2. "JV and MoU allowed" instead of "Bids in the form of JV and MoU are not eligible"

3. Bid submission closing (online)05-03-2018 instead of 26-

4. Bid opening date for Technical proposal (online)07-03-2018 instead of 28-02-2018.



Sd/-Superintending Engineer **Asansol Municipal Corporation** 

#### WEST BENGAL STATE RURAL DEVELOPMENT AGENCY

(An Agency under P&RD Deptt., Govt. of West Bengal)

Joint Administrative Building (6th Floor), Block - HC/7, Sector - III, Salt Lake City, Kolkata - 700 106

#### **Press Notice**

Chief Engineer, on behalf of WBSRDA invites online Item Rate Bids from eligible Bidders for Construction/Upgrading of Rural Roads under Pradhan Mantri Gram Sadak Yojana (ADB Rural Connectivity Investment Program) under the following Packages:

SI. No.	NIB No.	Date	Name of District	Name of PIU		No. of roads	Total Road Length (Km.)
1		v 450	2	3	4	5	6
1.	11/(ADB-RCIP 2)/ 2018 (2nd Call)	28.02.2018	Hooghly	Executive Engineer, Hooghly Division	40	52	127.862
			Hooghh	Executive Engineer, Hooghly Division	35	49	101.269
2.	12/(ADB-RCIP 2)/ 2018 (2nd Call)	28.02.2018	Murshidabad	Executive Engineer, Murshidabad Division	.1	1	8.26

Detailed NIB and other details can be viewed on our website http://pmgsytenderswb.gov.in from 01st March, 2018.

Chief Engineer, P&RD Department







পরই আবার

লৈ বললেন,

চোট লাগার

হ, সামনে এই

পর ইন্ডিয়ান

ছে। সেখানে

র পর সামনে

আকাপুলকো

াঝের স্ময়টা

নিজে থেকেই

ব। সেটা শেষ এ বছরও সেই



#### Asansol Municipal Corporation

Asansol:: Paschim Bardhaman NOTICE INVITING E-QUOTATION

Memo No.

: 25/0 /PW/Eng/18

Date: 23/02/18

#### CORRIGENDUM

It is notified that the intending E-Quotation will read the following in connection with E-qotation notice no. EQ-169/PW/Eng/2018 Dated 31.01.2018

- "Open Technology and that technology should exists and presently working in India or abroad " instead of "Agency should be licensed holder of Nisargruna which is developed by BARC"
- 2 "JV and MoU allowed" instead of "Bids in the form of JV and MoU are not eligible"
- 3 Bis Submission closing (online) 05.03.2018 instead of 26.02.2018

4 Bid openning date for Technical Proposal (Online) 07.03.2018 instead of 28.02.2018

Superintending Engineer
Asansol Municipal Corporation
Superintending Engineer

Asansol Municipal Corporation

Memo No. /17/PW/Eng/18

Copy to :-

1 The Secretary, U.D. & M.A. Department, Government of West Bengal

- 2 The Director, SUDA, ILGUS Bhawan, Salt lake City, Kolkata
- 3 The District Magistrate, Paschim Bardhaman.
- 4 The Sabhadhipati / Chief Executive Officer, Paschim Bardhaman Zilla Parishad, Paschim Bardhaman

Date.

- 5 The Commissioner, Asansol Municipal Corporation.
- 6 The Chief Engineer, M.E. Directorate, Bikash Bhawan, Salt Lake City, Kol-700091.
- 7 The Additional Chief Engineer, West Circle, M.E.Dte., BikashBhavan
- 8 The Chief Engineer, Asansol Municipal Corporation.
- 9 The Superintending Engineer, West Circle, M.E.Dte, Bardhaman
- 10 The Superintending Engineer, Asansol Municipal Corporation
- 11 The Media Officer, Department of Information and Cultural Affairs, Writers Buildings, Kolkata-700001.
- 12 The District Information and Cultural Officer, Paschim Bardhaman
- 13 The Executive Engineer, Asansol Division, M.E.Dte. With a request to present at the time of scheduled
- 14 The Finance Officer, Asansol Municipal Corporation
- 15 The R.O. Asansol Municipal Corporation
- 16 Notice Board.
- 17 Office Copy

Superintending Engineer
Asansol Municipal Corporation





#### প্রটিবের মামলা

দুনীতির দায়ে নির্বাসিত প্রাতান भिया त्यित्रकण ब्राणित बामना क वटक्स भरभाव विकास



# उद्योव अटभकारा (यन भूषीय

G/Z-VI/2017-2018/6-13

tallation of street lighting system by LED fittings at Kailash a Sagar Sarani, Ram Mohan Roy Road and different area inder Br.-XVI. Estimated Amount : Part B - Rs.9,54,644.00; ation, Earnest Money: 20,000.00 LS.

G/Z-VI/2017-2018/S-14

llation of street lighting system by LED fittings at Sakher Bazar hamiloni adjacent area and different area in Ward No.126 ited Amount : Part B - Rs.9,54,504.00; Part C - Open Quotation.

3/Z-VI/2017-2018/S-15

illation of street lighting system by LED fittings at Sakherhat a, Sarsuna High School adjacent area and different area in r.-XV. Estimated Amount : Part B -Rs.6,84,826.00; Part C - Open mey: Rs.14,000.00 LS.

/Z-VI/2017-2018/S-16

illation of street lighting system by LED fittings at Talpukur agar, Vivi Sangha no light areas and different area in Ward Estimated Amount : Part B - Rs:6,62,582.00; Part C - Open ney: Rs.13,000.00 LS.

/Z-VI/2017-2018/S-18

liation of street lighting system by LED fittings at Prasanta andra Nagar, Nabalia Para Road and others area in Ward . Estimated Amount : Part B - Rs.9,71,280.00; Part C - Open oney: Rs.20,000.00 LS.Period of Completion: 60 days (for ind Time of submission of Bid: 17.02.2018 at 12.00 noon (for ms and other details are available on and from 05.02.2018 at bsite https://etender.wb.nic.in (for \$i.No.1-5).

·E)/127-128-129/40

ement of street lighting by LED street light fittings by replacing BE fitting under Green City Mission at Diff Places in Ward nated Amount : Part A - Rs.5,58,830.00; Part C - Open Quotation,

E)/131/34

rement of street lighting by LED street light fittings under Khudiram Bose Sarani and Panchanantala Road in Ward nt : Part A - Rs.11,02,601.00; Part C - Open Quotation, Earnest .S, Period of Completion: 30 days (for SI.No.6-7). Last Date of Bid : 26.02.2018 at 5.00 p.m. (for Si.No.6-7). The bid forms ailable on and from 12.02.2018 at 5.00 p.m. from the website n (for SI.No.6-7).

111/2017-2018/185

ion of street lighting system at D.H Road (Mominpore More ossing) under Br.- IX (No light zone). Estimated Amount : Part C - Open Quotation, Earnest Money : Rs.11,000.00 LS. days. Last Date and Time of submission of Bid: 12.02.2018 at nd other details are available on and from 02.01.2018 at 2.00 p.m. etender.wb.nic.in

arks & Squares), KMC invites quotation online percentage ne following work:

8/03/2017-18

ment of play ground of Shyam Park and supply of good rk at Gouri Mata Uddyan in Ward No.08, Br.-I. Estimated rnest Money: Rs.18,000.00. Period of completion: 75 days. mission of bid: 10.02.2018 at 5.00 p.m. The bid forms and able on and from 31.01.2018 at 10.00 a.m. from the website

ivil), KMC invites online percentage rate tender in two bid

:/HQ)/102/2017-18, Dated - 31/01/2018

n and painting work of KMC Community Hall at Santipally ated Cost: Rs.6,07,263.16. Earnest Money: Rs.13,000.00. days. Last Date and Time of Submission of Bid: 10.02.2018 s and other details are available on and from 02.02.2018 at e https://etender.wh min in

all) of BTPS of WBPDCL. Tender Document Download Start Date: 3101 2016
11:00 hrs. Bid Submission End Date: 19:02:2016 at 17:00 hrs. Contact Person:
Dutta, Tel. No.: 8336904068, E-mail: idutla@wbpdcl.co.in. For details please asil https://wbtenders.gov.in ICA-T/760(2)/2018



EXTENSION OF DATES

Ret. No.: WBPDCL/Tend-Adv/CC/17-18/403/STPS Dated: 03.01.2018

Ref. NIT No.: WBPDCL/STPS/NIT/E1392/17-18

The Bid Submission End Date for Notice Inviting E-Tender published in this newspaper vide above mentioned Ref. No. for 'Repairing of toof with APP modified bituminous membrane at 25.5 Mir. level of Unit # 6 at STPS', is hereby extended to: 19.02.2018 at 10.00 hrs. Contact Person: D. Bhatlacharyya, DGM (M&C). Tel. No.: 08336903677. For details please visit: https://wbtenders.gov.in ICA-T/764(2)/2018



NIT NO.: WBPDCL/CORP/NIT/E1144/17-18 Dated:25.01.2018
E-tenders in prescribed format are invited at https://wbbcnders.gov.in.by the General Manager (MSC), WBPDCL from eighte Agencies/Companies in 02 (two) point of system for REDOVATION AND MORDERNIZATION OF ESP FOR THREE (3) HUMBERS OF 210 MW UNITS (USS, USS, USS) OF KOLAGHAT THERMAL POWER STATION (WBPDCL). Tender Document 15.00 hrs. Contact Person: S Sengupta. DGM (Cwi-MSC). Tel.Mo.: 2033-23393488. Email: s.sengupta@wbpdcl.co.in For details please. visit: https://wblenders.gov.in/ICA-T/765(3)/2018

#### Asansol Municipal Corporation Notice Inviting E-BID

Memo No. 2195/PW/Eng/18

dated 31-01-2018

Bid No. EQ-169/PW/Eng/18 dated 31-01-2018 Name of work :- Construction of Bio gas to electric generating unit for 100 MT Municipal Solid Waste process capacity plant including setting up of compost plant (if required) on turnkey basis (all design, drawing, geo-technical report etc. to be vetted by JU/BESU/IIT/NIT etc.) under Asansol Municipal Corporation.

Please visit to website http://etender.wb.nic.in or www.wbtenders.gov.in For details, intending contractors may also contact Eng. Dept.

of this office and office notice Board.

Sd/-Secretary Asansol Municipal Corporation

# Government of West Bengal

Office of the Deputy Directr of Health Services (E&S), WB Central Medical Stores, 141, A J C Bose Road, Kolkata-700 014 Phone No (033) 2265 4418/4417/4419,

E mail : ddhs\_cms@wbhealth.gov.in, cmswbhealth@gmail.com

Notice Inviting E-Tender

NIT No: HST/4T-21-2018/EDLP/2018-20/055, Dated 01-02-2018

E TENDER IS HEREBY INVITED FOR PRO-CUREMENT OF EDL PLUS FOR SUPPLY IN GOVERMENT RUN HOSPITALS IN THE STATE FOR A PERIOD OF 2 (TWO) YEARS FROM THE ISSUANCE OF THE WORK ORDER. INTER-ESTED MANUFACTURERS OF DID

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Please visit to website http://escades.mb.mis.in.in.
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There's a little bit of SAIL in everybody's life

Notice inviting e-tender Assistant Director of Fisheries, Bankura invites ordine lenders. No ADF / BANK / eNIT-06 / Meen Bhawan / 17-18 (Tender ID 2018, DOF 152789 1) and ADFI BANK / eNTI-07 / Still pool/ 17-18 (Tender ID 2018\_DOF\_152783\_1), starting date of submission of technical Bild and financial Bild (online) on 02.02.2018 from 5.00 PM and closing date 16.02.2018 up to 05.00 PM. For more details please visit www.wotenders.gov.in

and office of the undersigned... Self.

Self. Se

The Assistant Engineer, South Kolkata Hoakh Electrical Sub-Division—I, P.W. Dite, invites NIQ for "Special reservation work as per fire safety guideline far Nospitals—and Nursing Homes as Baghafatin State General Hospitals— S. B. of Infrared Scannar' for bonnfile resourceful, experienced and reliable electrical confractors and Last date of submission—app. 3.0.0 PM on 12.00, 2018. Last other of receiving tender upon 12.00 PM on 11.02, 2018 & last date of opening upon 3.00 PM on 13.02.2018. All documents can be seen/obtained from the websites <a href="https://petiendes.now.in/">https://petiendes.now.in/</a> Novem.portor.and office Notice Stoard. 94 Notice Health Electrical Sub-Division—1, P.W.Dts.

Notice inviting e-tender Assistant Director of Fisherius. Bankura invites online tenders Na ADF / BANKU eNIT 4 (MC) / 2017-18(2" Call) (Tender IC) 2016\_DOF\_152777\_1) and AEF+BANK+6HIT-5(IMC)+ 2017-10 (Fender ID 2016\_DOF\_152793\_1) stafing date of submission of technical Bid and Fagncial Bid (orlino) on DO 02.2016 from 5.00 PM and closing date 16.02.2018 up to 05 00 P&L For more details please visc www.wblend-rs.gov in and office of the undersigned

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e-NIT No. 26 of QUOTATION NOTICE The Sackwar Mills Limited On COMMING Abridged M. L. G. Q. No 08 of Aug Columbia Committee Com

PM. End date of submission: bid proposal -16.02.2018 upto 2.30 PM.

N.B. details may be obtained from http://wbunders.gov.in & from this office during office hours.

e-NIT No. 26 of 2017-18
One e-NIT is invited through antine by the Executive Engineer, 1916-1919. These homographics of 3 (Three) Nos. of works on 0.2.02.2018. End date of downloading tender documents 16.02.2018 upto 2.00 PM.
End date of submission bid proposal -16.02.2018 in bid proposal -16.02.2018 in the submission of Bid: 19.02.2018 upto 2.30 PM.

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आरोप है। यह कोर्ट में याचिका दावर वरने वाना प्रतिहाबाद का हंसराज चीहान खुद पीड़ित है। उसकी याचिका पर सुनवा चारते हुए हाई कोर्ट ने डेग सच्चा मीवा वे 400 साधुओं को नपुंसक बनाने के मामले में सीवीआइ जांच के आदेश दिए गए थे। इन आदेश पर हंसराज चौहान ने याचिका दाखिल कर इस जांच पर निगरानी की अपील की थी।

चिचागधीन हैं, जहां पर डेरा प्रमख ने योष्ट्रीआइ जांच को चुनौती दी हुई हैं। हेग प्रमुख के वकीलों की ओर से हाई कोर्ट में कहा जा चुका है कि उन पर लगाए गए आरोपों में कोई दम नहीं है। हाई कोर्ट ने सीबीआइ जांच के आदेश में कोई सहत पदान नहीं की थी।



कार्या क दियरि पर समाधिक्ट बन्धियो है है। सूचना

कर्पन्त कानुन 1968 के अनुसार चन्हें देंहर्य शासित (SF-5) उनके घर पता वर मेंजे गये थे लेकिन ग्राग बादत मुखिया के लिखित पत्र एवं दो आसीमें से ुयनः प्रतित हुई की कर्मधारी लग्ने त्तनव से अपने घर र नहीं हैं इसे लिए चार्जसीट दिया नहीं जा संका। क्ष-पातिकृत सनुपरिवत कर्म करी का विकरण

कम लं.।. कर्म खरी का नाम तथा पदनाम : अनिषेक क्मार हेत्यर (गांडी प्रदीयन) पूमारे. गोमो. पिता का क्षम एवं स्वायी पता: श्री स्वीरंकर सिंह प्रा०-गदी ं-करपी जि-अरवरत बिहार पिन कोड 804419 हनपश्चित की सपदि: 03.10.2013 से सभी तक दीन शास्ति का कम एवं दिनांक तथा जारी करने वाले क्रिकारी : ई.एस/ 1238/14/142 दिनांक 25.01 2016 2 कर्मचारी कानाय तथा पदनामः संगीर बाउरी त्यर (माही प्रदीपन) सिंगरीली पिता का नाम सर्व स्वायी पता : श्री दुखी राम बाउरी ग्राम राजाँव घटटी, पोर्श-राजबॉघ, ब्याना— कनकसहा, बिसा वर्टमान पहिल्म इंगाल पिन 713212 अनुपरिवत की अवि: 24.12.2012 से अभी तक दीर्थ शास्तिका कम एवं दिनांक तथा जारी करने वाले सधिकारी : ई ल/1238/14/232 दिनांक 05.02 2016

इसं नोटिस के माध्यम से कर्मचारी को सुचित किया जाता है कि इस सूचना प्रकाशन के 15 दिनों के बंदर वार्जसीट क्रीय मंडल विद्युत क्रांसिकता (सामान्य कार्यालय, पूर्व मध्य रेल धनबाद के समझ उपस्थित होक्र अपना चार्जसीट प्राप्त कर इसका 15 दिनों के अन्दर जवाब दें अन्यया समझा जायेया कि कर्मचारी की रूपने बचाव में कुछ नहीं कहना है। इसके उपरांत रेल प्रशासन एकतरका अनुशासनिक कार्यवाही करने के लिए बाज्य होन्छ।

क्ष्या कर्नकारी नोट करें कि दंड के छहत समान अधिकारी के द्वारा सेवा से बर्खास्तगी/ निष्कासन का बादेश (dismissal/removal) पारित किया जा सकवा है।

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निविदा आमंत्रण सूचना

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१ कार्य का नाम: पूर्व मध्य रेलवे के घनवाद गढत के

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को 11,00 बजे तक एवं दिनांक 26,02,2018 को 11.30

बजे खोला जाएगा। 5. वेबसाइट विवरण, सूचना पट

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खरीदा जा सके : वेबसाइट http://ireps.gov.in/

स्वेना पट का स्थान और कार्यालयं प्ता- मुख

परियोजना निदेशक (इंजी), रेल विद्युतीकरण, दानापुर

का कार्यालय, (जगजीवन स्टेडियम के पास).

कुछ परिकेश निर्देश होती

रेत वित्वीकाष, वनस्र

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करते हैं, जो दिनांक 28.02.2018 को खोली जायेगी।

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For details please contact the above

of West Bengal Websites

तकनीकी एवं विचीय विडस ऑनलाईन निआस सं. 01/PM/NII

टाईफलोगुडेम, २पी में एनआईडी एपी हेत् फेल (एक मुश्त) रोवाएं एवं लेका, वर्कशॉप्स, गेस्ट आउटहोर स्पोर्ट्स सुविधाएं, लात्र (Boys) होत कारलेश्स, छात्र मेस, छात्रा मेस, केंटीन, हेतु भवनी प्रेस सूचना दिनांक 20.01.201S के आलाक में समय 12.02.2018 को 15.00 बजे तक बन तकनीकी एवं वितीय बिड्स स्थान की ऑन datelles www.tenderwizard.com/CPWD www.eprocure.gov.in पर भी उपलब्ध है।

> कार्यालय अतिरिक्त सार्वजनिक निर्माण विभा क्रमांकः ए.सी.ई./बी.टी.पी./अनू.-III(TA)/

दिनांक:-23.01 UBN No. PWD1718

निविदा सचना संख्या: 13/20 लेविल कासिंग आर.ओ.बी. नं.

राजस्थान के राज्यपाल महोदय की आर ि आर ओ.बी. के निर्माण कार्य मय तीन वर्ष की म में सार्वजनिक निर्माण विभाग राजस्थान एवं रा एए" श्रेणी तथा केन्द्र सरकार के अधिकृत स एवं दूर संचार विभाग/रेल्वे इत्यादि में पंजीकृत पए" श्रेणी के संवेदकों के समकक्ष हो, से का प्रपत्र में प्राप्त की जावेगी। निविदा से संबंधित वि http://www.pwd.rajasthan.gov.in/\ 'www.sppp.raj.nic.in'' पर देखा जा सकता

(DIPR/C/1036/2018)



निविदा आम

(प्रतिस्पर्घात्मक निविदा केवल

भा.रा.रा.प्रा. निम्नलिखित परियोजना के लिए यो

कार्य का नाम

राजस्थान राज्य में मारतमाला परियोजना (वु 273,867 किमी.) का फेज -1 के अंतर्यत हाइ मोढ घर एनएच - 70 के मुनाबाओं (एसएच-25 म्याजलार - धनाना - असुतार -(डिजाइन चैनेज-किमी, 0,000 से किमी, 46 किमी 82,600 से किमी 310,467) का पे सहित दो - लेन का निर्माण / उन्तयन।

विस्तृत निविदा दस्तावेज भा.स.स. की https://etenders.gov.in से डाउनलोड ऑनलाइन जमा करने की अंतिम तिथि औ संशोधन / शुद्धिपत्र, यदि कोई होगा तो, भारा या https://etenders.gov.in पर प्रकारि पत्राचार का पताः महाप्रबंधक (तकनीकी) भा रा.स.प्रा. जी--५ एवं ६. सेक्ट्र--10, द्वार फोन: 011-25074100/4200, विस्तार: 141 Hell field To



# भारतीय राष्ट्रीय राजमार्ग प्राधिकरण

(सङ्कं परिवहन और राजमार्ग मंत्रालय)

े निविदा आमेत्रण सूचना

(प्रतिस्पर्धात्मक निविदा केवल ई-टेंडरिंग के माध्यम से) मा.रा.रा.प्रा. निम्नलिखित परियोजना हेतु योग्य टेकेंदारों से निविदाएं आमंत्रित

अनुमानित लागत कार्य का नाम दिल्ली राज्य में इंपीसी मौड पर (पैकेज-1) के एनएच-8 के किमी 20 पर शिव मूर्ति इण्टरसेक्शनं से द्वारका संक्टर-21 के पास, किमी 0.800 से किमी 5.300 रेल अन्डर ब्रिज (आरयूबी) तक द्वारका एक्सप्रेसवे का निर्माण।

₹. 1461.82 क्रमेर

विस्तृत निविदा दस्तावेज मा.सा.सा.मा. की वेबसाइट www.nhali.gov.in https://etenders.gov.in से डाउनलोड किया/ देखा जा सकता है।

आंनलाइन जमा करने की अन्तिम तिथि व सभय : 19.03.2018 (11:00 बजे तक) संशोधन/शुद्धिपत्र, यदि कोई होगा, तो भाराराप्रा, की वेबसाइट www.nhai.gov.in

http://etenders.gov.in पर प्रकाशित किया जाएगा । भूताचार का पता : महाभूबन्धकं (तकनीकी), मा,राराप्रा जी-5 एवं 6, सैक्टर-10, द्वारका, नई दिल्ली-110 075,

फोन : 011-25074100/4200, एक्स: 1232, ई-मेल: dineshyadav@nhai.org

सडकें ही नहीं, साष्ट्र का निर्माण भी

#### KOLKATA METROPOLITAN DEVELOPMENT AUTHORITY

e-Tender No.: 21/KMDA/CIVIL/SE(CRS)/E&AM OF 2017-18

Superintending Engineer, CRS Circle, E&AM Sector, KMDA, Unnayan Bhavan, 8th Floor, Block- 'A', Kolkata - 700 091, invites online tender from reliable, resourceful, bonafide, eligible firms/companies/individual/Joint Venture agencies for the work:-Name of work: Balance work for unfinished 5 (five) storied R.C.C Framed Structure building at 19A, Chetta Hut Road, Kolkata-700027. Estimated Cost (₹): ₹ 2,09,64,370/-. Earnest Money (7): 4,19,287/-. Time of Completion: 12 Months. Last date & time for online request for tender Date is: 24.02.2018 up to 15:00 hrs. For details please contact the above mentioned office KMDA/T-1089/GAPL(3)/17-18 or our both websites.

Visit KMDA website: www.wbtenders.gov.in or www.kmdaonline.org



#### **Asansol Municipal Corporation** Asansol

#### Notice Inviting E-Quotation

E.-Quotation Notice No. 169/PW/ENG/18 Dt. 31.01.2018

Please visit to AMC website

Date: 01.02.2018

http://etender.wb.nic.in.or.www.wbtenders.govt.in For details, intending contractors may also contact Eng. Dept. of this office and office notice Board.

Sd/-

Secretary Memo No.259-G

**Asansol Municipal Corporation** 



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inik Jagaron.



#### Office of the Councillors of Asansol Municipal Corporation

# Dr. G.R. Mitra Sarani, P.O-. Asansol, Dist. Paschim Bardhaman, West Bengal

Ph. No. 0341 2302219, Fax No.: 0341 2302491

E-Mail: mayor.amc@gmail.com

Wbsite: WWW.asansolmunicipalcorporation.org

Notice Inviting e-BID

Memo. No.: 2135/PW/Eng./18

Dated: 31..01.2018

BID NO:-E-0-169/pw/Engf18 st-31/1/18

The Secretary, on and for behalf of the Board of Councilors of Asansol Municipal Corporation invites sealed competitive e-Bid on Turnkey Basis (Two part System) from reliable and resourceful Companies/Firms/Contractors having experience and acumen in construction work as noted below the eligibility & depicted hereunder for participating in the Bid. Bids in form of MOU / JOINT VENTURES shall not be eligible.

Name of work: Construction of Bio gas to Electric generating unit for 100 MT Municipal Solid Waste process capacity plant including setting up of compost plant (if required) on turnkey basis ( All design, drawing, geo-technical report etc. to be vetted by JU/BESU/IIT/NIT etc.) under Asansol Municipal Corporation

1. Scope of work:

1.1Geo-Technical investigation, Planning, Designing, Construction & Commissioning of 100 MT/Day Solid waste processing setup by installing a Biogas plant constructed by a combination of 20 Nos 5 MT per unit Capacity steel Fabricated Bio Gas Plant out of 218.40 MT/ Day Solid Waste Generated in Asansol Municipal Corporation. The technology should be proven for process waste generated in Indian conditions, approved / designed by relevant wing from Govt. of India a Biogas plant using "Nisargruna" A technology for Biogas plant designed by Bhaba Atomic Research Centre, a Govt of India Enterprise. The technology should be proven for Municipal waste generated in Indian conditions, approved / designed by relevant wing from Govt. of India. Survey to be provided by Asansol Municipal Corporation.

1.2Construction of Municipal Solid waste dumping area and sorting area at each plant site, place for easy storage and disposal of recyclables. This will include the construction of the appropriate shed and conveyance of the solid waste from the sorting site to

the bioreactors.100 MT compostable waste to be sorted out from unsegregated waste of 218.40 MT.

1.3Separate storage facility at site for Methane generated from the biogas plants in form of steel fabricated Gas storage tanks.

1.4Installation of appropriate sized Biogas fuel Generator to run by the gas generated from the Biogas plant and generate electricity (with an approximate capacity of 80 KWH of electricity per ton of biodegradable solid waste processed). The generator is set up in a enclosure with appropriate sized scrubbers and chillers to ensure the necessary cleaning of Biogas.

1.5Complete commissioning of the set up and operations and maintenance for a period of 12 months from the date of completion of commissioning.

1.7Construction of main entrance including proper boundary wall mountain with razor wire at top and over headed project name plate / Permanent Hording.

**1.8** Construction of drain along the periphery of plant area.

**1.9** Proposed layout plan should be vetted by reputed Education Institution before issue of L.O.I.

- 2. Location of Work:
- Eligibility to participate in the Bid:

Asansol Municipal Corporation, Paschim Bardhaman

The Agency should be a licensed technology holder of "Nisargruna", A technology for Biogas plant designed by Bhaba Atomic Research Centre, a Govt of India Enterprisefor handling Municipal Solid waste and should have relevant experience in execution of similar projects with at least one installation of Steel Fabricated Bio-Methanation plant using the same technology with sorting facility of Municipal Solid waste with capacity to process 3 Metric Ton Per Day biodegradable waste installed in similar terrain to the project in last two years.

AND

The agency should demonstrate having in-house / sister company steel fabrication setup with qualified personnel and minimum quality standards meeting ISO certifications and should have executed similar steel fabrication works.

#### AND

The agency should exhibit experienced and qualified personnel with at-least one personnel with 15 years minimum experience from the field of Environmental Engineering and one personnel with minimum of 15 years of experience in steel fabrication works.

#### AND

Having valid electrical license(Both HT & LT), ST/GST, TAN, PAN Card, PF & E.S.I Registration Certificate and Electrical supervisory license etc.

 Documents to be produced in support of Credential for Bid

A successful completion certificate issued by the Municipal client for having completed similar project for Municipal Solid waste shall have to be furnished in support of credibility in terms with eligibility criteria depicted in this Notice. Resumes of key personnel minimum one environmental engineering & and one fabrication (Ref:Sl. No. 3:Eligibility to participate in the Bid). Completion Certificates has to be issued by the client. Work completed as Sub contractors and JV participants will not be eligible. Completion certificates from the individual / proprietary firms will not be accepted. Certificate of site visit. Besides this, following documents shall have to be furnished:

- Particulars of ownership/partnership or Board of Directors pertaining to the organization /Company /Firm, MOA
- Copies of valid Certificate of Incorporation, PAN Card, Sales Tax clearance, upto date Professional Tax clearance Certificate.

# All documents in original to be produced in due course of time as & when asked by the Tender Inviting Authority

#### Earnest Money

5.

2% of the Quoted Bid price in two parts, vise

- a. Rs. 1,00,000.00 (Rupees One Lakhs only) as an initial Earnest Money Deposit shall accompany with Bid Proposal.
- b. Balance amount of Earnest Money to be submitted later on.

Note:- The Earnest Money, as specified in this NIeB shall be paid by online internet bank transfer or NEFT or RTGS (as per GO No. 3975-F(Y) dt. 28.07.2016 of Finance Deptt., Govt. Of West Bengal). Every such Transfer shall be done on or after the date of publish of NIeB. Any Bid without such Transfer of EM (Except exemption as per G.O.) shall be treated as informal and shall be automatically cancelled. Online transfer of Earnest Money receipt (Scanned copy) shall be uploaded as Statutory document.

#### 6. Date and Time Schedule :-

Sl. No.	Particulars	Date and Time
a)	Date of uploading of N.I.T. and Tender Documents online) (Publishing Date)	01.02.2018 03:00 PM
b)	Documents download/sell start date (Online)	01.02.2018 3:00 P.M.
c)	Documents download/sell end date (Online)	26.02.2018 3:00 P.M.
d)	Seek Clarification start date	02.02.2018 from 10:00 A.M.
e)	Seek Clarification end date	09.02.2018 upto 5:00 P.M.
f)	Date of Pre Bid Meeting with the intending Bidders in the office of the Secretary, Asansol Municipal Corporation, Asansol Paschim Bardhaman	
g)	Bid submission start date (On line)	02.022018 from 10:00 A.M.
h)	Bid Submission closing (On line)	26.02.2018 3:00 P.M.
i)	Bid opening date for Technical Proposals	28.02.2018 3:00 P.M.

	(Online)	
j)	Date of uploading list for Technically Qualified Bidders (online)	To be notified later
k)	Date and Place for opening of Financial Proposal (Online)	To be notified during uploading of Technical Evaluation Sheet of Bidders
l)	Date of uploading of list of Bidders along with the offer rates through (on line),	Within 48 (Forty Eight) hours after opening of financial proposal

7. Time of completion

Time of completion of the Contract is 365 (Three Hundred Sixty Five Days) from the date of issue of Work Order.

8. Site inspection & general information

Intending Bidders are mandatorily required to inspect the site of the Project with particular reference to location and infrastructure facilities to make a careful study with regard to availability of materials and their sources and all relevant factors as might affect their rates and prices and show proof of visit-acknowledged by competent authorities. They are also acquainted with relevant IS specifications, Clauses & Sub Clauses of the Bid documents and to have fully acquainted with all details of work front, communications, underground utility services, seasonal weather and its variation, labour, water supply, existing & proposed site levels, position and diversion of transportation and barricading, if required, electricity and any other general information including topological condition & existing level and level pertaining to and needed for the work to be completed in time properly.

9. Bid documents

A full set of Bid documents consists of 2 Parts. These are;

Part I containing all documents in relation to the name of the firm applied for and credentials possessed by them, all documents as depicted in Sl. No. 4 along with this NIeB and its all corrigenda's.

#### AND

Section A: Description of the Project.

Section B: Conditions requirements for Bidding.

Section C:

General conditions of the Contract.

Section D:

Special provisions.

Section E:

General specifications of workmanship

& materials for Civil Works.

Section F:

General technical specification of

Biogas Plant.

Section G:

General Technical specifications for Gas

storage Bullets to be installed at the

Section H:

Specification of Generator and

Scrubber.

- Part II containing following documents;
- Bid Price / Price Schedule (BOQ).
- 10. Validity of Bid:-

A Bid submitted shall remain valid for a period of 180 calendar days from the date set for opening of Bids. Any extension of this validity period if required will be subject to concurrence of the Bidders.

11. Withdrawal of Bid:-

A Bid once submitted shall not be withdrawn within\_ the validity period. If any Bidder withdraws his Bid(s) within the validity period then Earnest Money as deposited by the firm will be forfeited.

12. Acceptance of Bid:-

The Secretary, Asansol Municipal Corporation will accept the Bid on recommendation of the competent Authority. He does not bind himself to accept otherwise the lowest Bid and reserves to himself/herself the right to reject any or all of the Bids received without assigning any reason thereof.

13. Intimation

The successful Bidder will be notified in writing of the acceptance of his Bid. The Bidder then becomes the "Contractor" and he shall forthwith take steps to execute Formal Contract Agreement in appropriate Mumnicipal Corporation Form with the Secretary, Asansol Municipal Corporation and fulfill all his obligations as required by the Contract.

After the Bid is provisionally accepted, the Bidder shall submit detail Design, &Drawing and working specifications phase wise based on existing site condition & proposed levels at site. This design should be as per "Nisargruna" technology.

Eventually, all the parts, Design, Drawings etc. of the

successful Bidder shall be taken as a part of the agreement.

14. Escalation of Cost

There will be no escalation in cost for materials or labour and the contract price mentioned in the contract stands valid till completion of the O&M of the contract.

15. Name & address of Engineer-In-Charge (EIC) of the Work Executive Engineer, Asansol Division, Municipal Engineering Directorate.

16. Execution of Work

The Contractor is liable to execute the whole work as per direction and instruction of the Executive Engineer, Asansol Division of Municipal Engineering Directorate who is the Engineer in Charge of the work after due approval of "The Superintending Engineer, West Circle, M. E. Dte."

17. Payment

Payment will be made to the successful Bidder by the Corporation Municipal Asansol written receipt of only on periodically recommendation from the Executive Engineer, Engineering of Municipal Division Asansol Directorate.

18. Influence

Any attempt to exercise undue influence in the matter of acceptance of Bid is strictly prohibited and any Bidder who resorts to this will render his Bid liable to rejection.

Following clauses are to be adhering to by the concerned Bidder during the process of Bidding.

- 19. In case office faces sudden closure owing to reason beyond the scope and control of the Secretary, any of last date/dates as schedule in Sl. No 7 may be extended upto/to next and following working day without issuing further and separate notice should the Secretary feel it to be necessary and exigent.
- 20. Persons having authenticated and having registered Power of Attorney may be considered lawfully becoming to be acting on and for behalf of the Bidder.
- 21. Sufficient care has been taken to avoid variance in between the contents of the listed documents in the Bid documents. However, if there is any variance between the contents of different documents, the provision of documents appearing earlier in the list shall prevail over the same provided in the contents coming later.
- 22. Imposition of any duty/tax/rule etc. owing to change /application in

- legislations/enactment shall be considered as a part of the contract and to be adhering to by the Bidder/Contractor strictly.
- 23. Bid Acceptance Authority is the Secretary, Asansol Municipal Corporation.
- 24. In case of any dispute arising from any clauses of similar nature between bid documents and Municipal tender form, the decision of Superintending Engineer, West Circle, M.E. Directorate, will be final and binding.
- 25. All usual deductions for taxes i.e. ST, IT, GST and Labour welfare Cess etc. as applicable will be made from the bills from time to time which is inclusive in cl.57 of section C.
- 26. No conditional/incomplete Bid shall be entertained.
- 27. In the event of e-Filing intending bidder may download the tender document from the website.gov.in directly by the help of Digital Signature Certificate. (Details of which has been narrated in "Instruction to Bidders"). Technical Bid & Financial Bid both will be submitted concurrently duly digitally signed in the website http://wbtenders.gov.in. Tender document may be downloaded from website & submission of Technical Bid/Financial Bid as per Tender Schedule.

- 28. The Bidder, at the Bidder's own responsibility and risk is encouraged to visit and examine the site of works and its Surroundings and obtain all information that may be necessary for preparing the Bid and entering into a contract for the work as mentioned in the Notice inviting Tender, the cost of visiting the site shall be at the Bidder's own expense. Traffic management and execution shall be the responsibility of the Agency at his/her/their risk and cost.
- 29. The intending Bidders shall clearly understand that whatever may be the outcome of the present invitation of Bids, no cost of Bidding shall be reimbursable by the ULB. The Secretary Asansol Municipal Corporation reserves the right to reject any application for purchasing Bid documents and to accept or reject any or all the offered bid /bids without assigning any reason whatsoever and is not liable for any cost that might have incurred by any Bidder at any stage of Bidding.
- 30. Prospective applicants are advised to note carefully the minimum qualification criteria as mentioned in 'Instructions to Bidders' before bidding.
- 31. During scrutiny, if it is come to the notice to tender inviting authority that the credential or any other papers found incorrect/manufactured/fabricated, that Bidder will not be allowed to participate in the tender and that application will be out rightly rejected without any prejudice.

- 32. Before issuance of the work order, the tender inviting authority may verify the credential & other documents with the original of the lowest bidder if found necessary. After verification, if it is found that such documents submitted by the lowest bidder is either manufacture or false, in that case, L.O.A. / work order will not be issued in favour of the bidder under any circumstances.
- 33. If any discrepancy arises between two similar clauses on different notifications, the clause as stated in later notification will supersede former one in following sequence:
  - i) Municipal 'Tender" Form
  - ii) NIeB
  - iii) Special terms & Condition
  - iv) Technical bid
  - v) Financial bid
- 34. Contractor shall have to comply with the provisions of (a) the contract labour (Regulation Abolition) Act. 1970(b) Apprentice Act. 1961 and (c) minimum wages Act. 1948 of the notification thereof or any other laws relating thereto and the rules made and order issued there under from time to time.
- 35. Where an individual person holds a digital certificate in his own name duly issued to him against the company or the firm of which he happens to be a director or partner, such individual person shall, while uploading any tender for and on behalf of such company or firm, invariably upload a copy of registered power of attorney showing clear authorization in his favour, by the rest of the directors of such company or the partners of such firm, to upload such tender. The power of attorney shall have to be registered in accordance with the provisions of the Registration Act, 1908.
- 36. Any legal matter will be settled within the jurisdiction of Court at Asansol, Dist Paschim Bardhaman, West Bengal.

Asansol Municipal Corporation
Secretary
Asansol Municipal Corporation



#### INSTRUCTION TO BIDDERS/BIDDERS

#### SECTION - A

#### 1. General guidance for e-tendering

Instructions/ Guidelines for Bidders for electronic submission of the tenders have been annexed for assisting them to participate in e-tendering.

#### 2. Registration of Bidder

Any Bidder willing to take part in the process of e-tendering will have to be enrolled and registered with the Government e-procurement system, through logging on to http://wbtenders.gov.in. The Bidder is to click on the link for e-tendering site as given on the web portal.

#### 3. Digital Signature certificate (DSC)

Each Bidder is required to obtain a class-II or Class-III Digital Signature Certificate (DSC) for submission of tenders, from the service provider of the National Information's Centre (NIC) or any other bonafied service provider on payment of requisite amount. Details are available at the Web Site stated in Clause 2 of Guideline to Bidder. DSC is given as a USB e-Token.

4. The contractor can search and download NIB and Tender Documents electronically from computer once he logs on to the website mentioned in Clause 2 using the Digital Signature Certificate. This is the only mode of collection of Tender Documents.

5. Submission of Tenders.

General process of submission, Tenders are to be submitted through online to the website stated in Cl. 2 in two folders at a time for each work, one in Technical Proposal and the other is Financial Proposal before the prescribed date and time using the Digital Signature Certificate (DSC) the documents are to be uploaded virus scanned copy duly Digitally Signed. The documents will get encrypted (transformed into non readable formats).

A. Technical proposal The Technical proposal should contain scanned copies of the following further two covers (folders).

#### A-1. Statutory Cover Containing

#### 1.Prequalification Document

- i. Prequalification Application (Sec-B, Form I)
- ii. Scanned Copy of the online transfer of earnest money (EMD) as prescribed in the NIeB.
- 2. NIeB with Bid Documents (download and upload the same Digitally Signed)
- 3. Technical Document (To be filled, scanned & digitally signed)
- i. Financial Statement (Section B, Form II).
- ii. Affidavits( (Ref:- format for general affidavit shown in "Y" Part "B". )
- iii. Form III & IV Of Section B.

#### A-2. Non statutory Cover Containing/My Documents

- i. Professional Tax (PT) deposit receipt challan (up to date), PAN Card, IT, IT Return for the Current Assessment year, GST Registration Certificate (up to date).
- ii. Registration Certificate under Company Act. (if any).
- iii. Registered Deed of partnership Firm/ Article of Association and Memorandum
- iv. Power of Attorney (For Partnership Firm/ Private Limited Company, if any)
- v. Tax Audit Report along with Balance Sheet and Profit and Loss A/c for the last three years(year just preceding the current Financial Year will be considered as year I)
- vi. Clearance Certificate for the Current Year issued by the Assistant Registrar of Co-Op(S) (ARCS) bye laws are to be submitted by the Registered labour Co-Op(S) Engineers' Co-Opt(S)
- vii. List of technical staff along with structure and organization (Section B, Form III). viii. Credential :Scanned copy of Original Credential Certificate as stated in NIeB

Note: - Failure of submission of any of the above mentioned documents (as stated in A1 and A2) will render the Bid liable to be summarily rejected for both statutory and non-statutory cover.

Intending Bidders should upload Non-Statutory documents as per following folders in My Document:

E-Bidding system of Government of West Bengal			
Bidder Document Sub Category Master			
Sl. No.	Category Name	Sub Category Name	Sub Category Description
A	Certificates		
		A1. Certificates1	1. West Bengal ST Registration /GST/PAN / P. Tax Clearance
В	Company Details		
		B1. Company Details 1	1. Proprietorship Firm (Trade License). 2. Registered Deed of partnership Firm 3. Registration Certificate under Company Act. (if any). Ltd. Company (Incorporation Certificate, Trade License) 4. Power of Attorney (For Partnership Firm/Private Limited Company, if any) 5. Society, TradeLicense)
С	Credential		
		C1. Credential 1	Similar nature of work & completion certificate issued by competent authority
Е	Financial Info		
		E1. P/L & Balance Sheet for the last 3 years	P/L & Balance Sheet (as per NIeB)
=		E2Completion Certificate	Completion Certificate & Work Order Certificate in support of
		E3 Work Orders	valid Credential only to be submitted
F	Manpower		
		F1. Technical Personal	List of sufficiently qualified technical person     (as per SI No 3 of NIeB)
		F2. Technical Personal on Contract	List of technical personnel employed under the organisation (or on contact basis ) in details with name, qualification, experience and address with
			contact number.
		Declaration 2	2. Valid Document in support of annual turnover as per NIeB.
		Declaration 3	3. Corrigendum and additional document (if any).

Note:- Failure of submission of any of the above mentioned documents (as stated in A1 & A2) will render the Bid liable to summarily rejected for both statutory & non statutory cover. All Corrigendum & Addendum Notices, if any, have to be digitally signed & uploaded by the contractor in the Declaration Folder of My Documents.

#### B. Bid Evaluation

- i. Opening and evaluation of Bid:- If any Bidder is exempted from payment of EMD, copy of relevant Government order needs to be furnished (applicable in case of Registered Labour Co-Operative Society).
- ii. Opening of Technical proposal:- Technical proposals will be opened by the Bid Inviting Authority electronically from the website using his/her Digital Signature Certificate.
- iii. Cover (folder) of statutory documents (vide Cl. No. 5.A-1) should be opened first and if found in order, cover (Folder) for non-statutory documents (vide Cl. No. -5.A-2) will be opened. If there is any deficiency in the statutory documents the Bid will summarily be rejected.
- iv. Decrypted (transformed in to readable formats) documents of the non-statutory cover will be downloaded and handed over to the Bid Evolution Committee. Scrutiny of technical proposal and recommendation thereafter and processing of comparative statement for acceptance etc. will be made by the Municipal Engineering Directorate, under the Deptt. of Municipal Affairs, Govt. of West Bengal. Comparative Statement may be forwarded to appropriate authority depending on the value of the work as applicable as per existing norms and guidelines under Nirmal Bangla/(SBM) Mission.
- v. Uploading of summary list of technically qualified bidders.————
- vi. Pursuant to scrutiny and decision of the screening committee the summary list of ligible Bidder and for which their proposal will be considered and uploaded in the web portals.
- vii. While evaluation, the committee may summon the bidders and seek clarification / information or additional documents or original hard copy of any of the documents already submitted and if these are not produced within the stipulated time frame, their proposals will be liable for rejection.

#### C. Financial proposal

As per Sl. 9 Part II (a), Bid Price / Price Schedule. To be uploaded Digitally signed by the Bidder.

6. Financial capacity of a Bidder will be judged on the basis of working capital and available bid capacity as mentioned in the N.I.T. to be derived from the information furnished in FORM-I and II (Section-B) i.e., Application (for Pre-qualification) and Financial Statement. If an applicant feels that his/their Working Capital beyond own resource may be insufficient, he/they may include with the application a letter of guarantee issued by a first class Bank to supplement the applicant. This letter of guarantee should be addressed to the Tender Inviting/ Accepting Authority and should guarantee duly specifying the name of the project that in case of contract is awarded to the Bidder, the Bidder will be provided with a revolving line of credit. Such revolving line of credit should be maintained until the works are taken over by the Authority.

The audited Balance sheet for the last Three years, net worth bid capacity etc. are to be submitted which must demonstrate the soundness of Bidder's financial position, showing long term profitability including an estimated financial projection of the next two years.

#### 7. Penalty for suppression / distortion of facts

Submission of false document by Bidder is strictly prohibited and in case of such act by the Bidder the same may be referred to the appropriate authority for prosecution as per relevant IT Act with forfeiture of earnest money forthwith.

#### 8. REJECTION OF BID

The Employer (tender accepting authority) reserves the right to accept or reject any Bid and to cancel the Bidding processes and reject all Bids at any time prior to the award of Contract without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the ground for Employer's (tender accepting authority) action.

The Bidder who's Bid has been accepted will be notified by the Tender Inviting and Accepting Authority through acceptance letter/ Letter of Acceptance

The Letter of Acceptance will constitute the formation of the Contract.

The Agreement in Printed Tender Form will incorporate all necessary documents e.g. N.I.B., all addenda-corrigendum, special terms and condition (Section -C), different filled-up forms (Section -B), Price Schedule and the same will be executed between the Tender Accepting Authority and the successful Bidder.

THICIPAL COROLLAND

Asansol Municipal Corporation

Asansol Municipal Companion

# SECTION - B Form - II FINANCIAL STATEMENT

- **B.1** Name of Applicant:
- **B.2** Summary of assets and liabilities on the basis of the audited financial statement of the last Three financial years.

(Attach copies of the audited financial statement of the last three financial years)

	1st Year 2014-15	2nd Year 2015-16	3rd Year 2016-17
Year	(Rs. In lakh)	(Rs. In lakh)	(Rs. In lakh)
Amount			

Work in hand i.e. Work order issued	As on	As on	As on
	31.03.2017	31.03.2016	31.03.2015
·—·			

Title of the officer	
Name of the Firm with S	1

#### AFFIDAVIT "Y"

#### Declaration of the Bidder

(Affidavit to be affirmed on a Non Judicial Stamp Paper of Appropriate Value And Duly Notarized)
I,, son of
and confirm as follow:
1. That, I am the
2. That, I have inspected the site of work covered under NIB (NIB No ) circulated through Office memo bearing No ———————————————————————————————————
3. That I declare that, no relevant information as required to be furnished by the Bidder has been suppressed in the Bid documents.
4. That the statement above made by me is true to my knowledge.
Deponent
Solemnly affirmed by the said
Before me.
(1st class Judicial Magistrate / Notary Public)

#### SECTION - B

#### FORM-III

## STRUCTURE AND ORGANISATION

A.1 Name of applicant:	
A.2 Office Address:	
Telephone No. and Cell Phone No. :	
Fax No.: —	
E mail id:	
A.3 Attach an organization chart showing key personnel and technical staff to Environmental Engineering personnel &	g the structure of the company with names of with Bio-data. (Should include details of Steel Fabrication personnel:
<b>Note:</b> Application covers Proprietary Corporation,	Firm, Partnership, Limited Company or
	Signature of applicant including title
	and capacity in which application is made.



# রাজ্য নগর উন্নয়ন সংস্থা



STATE URBAN DEVELOPMENT AGENCY

"ইলগাস ভবন", এইচ-সি ব্লক, সেক্টর-৩, বিধাননগর, কলকাতা-৭০০ ১০৬, পশ্চিমবঙ্গ "ILGUS BHAVAN", H-C Block, Sector - III, Bidhannagar, Kolkata - 700 106, West Bengal

ক্রমিক নং mp/P/e-10/14-1/2015 (pt.x)/131

তারিখ 20/04/2018

From:

Finance Officer, SUDA

To:

Mayor, Asansol Municipal Corporation

#### MEMORANDUM

Sub: Release of fund to Asansol Municipal Corporation for implementation of SWM Projects under Mission Nirmal Bangal (U) / Swachh Bharat Mission (U)

Sir,

In reference to your letter vide no. 1702/PW/ENG/17 dated 29.11.2017, Fund has been released Rs. 57700000 for implementation the Solid Waste Management Projects phase-1 under Mission Nirmal Bangla (U)/ Swachh Bharat Mission (U).

Fund has been released in favour of Asansol Municipal Corporation in the A/C No: - 916010002415919 of Axis Bank Ltd, Asansol Branch on the date 16.04.2018.

and

Yours faithful

Finance Officer, SUDA.

Tel: 2358 6403/5767, Fax: 2358 5800, E-mail: wbsudadir@gmail.com

The release of fund is also subject to the following conditions:

- 1) The fund should be utilized only for the purpose for which it is released and for no other purpose.
- 2) Works for the released amount should be executed strictly as per scheme Guidelines.
- 3) Monthly report of Physical and Financial progress should be sent to SUDA and MED by the 7<sup>th</sup> of the following month.
- 4) The amount released herein should be kept in the dedicated Bank Account for SBM maintained by the ULBs.
- 5) A subsidiary Cash Book should be maintained for keeping accounts (deposits and withdrawals) of funds.
- 6) Money receipt in Form 42 may be sent immediately after receipt of the online transfer.
- 7) Appropriate amounts should be sub allotted to the concerned ULBs.

Finance Officer, SUDA.

#### Copy Forwarded for kind information of:

- 1. Secretary, UD & MA Dept, Govt. of West Bengal.
- 2. Sri B.N.KAR, Addl. Dir. SBM and Addl. Dir. ILGUS.
- 3. Chief Engineer, M.E. Directorate.
- Cashier, SUDA.

Finance Officer, SUDA.



# রাজ্য নগর উন্নয়ন সংস্থা



STATE URBAN DEVELOPMENT AGENCY ''ইলগাস ভবন'', এইচ-সি ব্লক, সেক্টর-৩, বিধাননগর, কলকাতা-৭০০ ১০৬, পশ্চিমবঙ্গ

"ILGUS BHAVAN", H-C Block, Sector - III, Bidhannagar, Kolkata - 700 106, West Bengal

MA/P/C-10/1G-1/2	2015 (Pt.	-X)/94
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16.04.2018

ক্রমিক লং .....

তারিখ .....

From : Director, SUDA

To

: The Branch Manager,

Axis Bank Ltd.,

Salt Lake, Sector-II Branch,

BJ-110, Sector-II,

Salt Lake City, Kolkata - 700 091.

Sub: Electronic Transfer of Fund debiting this office Current Account No.916010072244925.

Swachh Bharat Mission (SBM)

Sir,

You are requested to kindly arrange for electronic transfer of funds as per details given below debiting the amount from this office Savings Account No.916010072244925 lying with your branch in respect of Swachh Bharat Mission (SBM).

Sl.	Name of Payee	Amount in Rs.	Bank Details
01.	Asansol  Municipal Corporation	5,77,00,000.00	Axis Bank Ltd., Asansol Branch, A/C No.916010002415919 IFS Code.UTIB0000150
	(Rupees Five C	rore Seventy Seven	Lakh onły)

(Md Asif Sardar) Finance Oficer SUDA (Sutanu Prasad Kar) Director

SUDA

John 18

দ্রভাষ ঃ ২৩৫৮ ৬৪০৩ / ৫৭৬৭, ফ্যাক্স ঃ ২৩৫৮ ৫৮০০

Tel: 2358 6403/5767, Fax: 2358 5800, E-mail: wbsudadir@gmail.com





"ইলগাস ভবন", এইচ-সি ব্লক, সেক্টর-৩, বিধাননগর, কলকাতা-৭০০ ১০৬, পশ্চিমবঙ্গ "ILGUS BHAVAN", H-C Block, Sector - III, Bidhannagar, Kolkata - 700 106. West Bengal

MA/P/C-	-10/1G-	1/2015	(PtX)/	94
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16.04.2018

ক্রমিক নং .....

তারিখ .....

From : Director, SUDA

To

: The Branch Manager,

Axis Bank Ltd.,

Salt Lake, Sector-II Branch,

BJ-110, Sector-II,

Salt Lake City, Kolkata - 700 091.

Sub: Electronic Transfer of Fund debiting this office Current Account No.916010072244925.

Swachh Bharat Mission (SBM)

Sir,

You are requested to kindly arrange for electronic transfer of funds as per details given below debiting the amount from this office Savings Account No.916010072244925 lying with your branch in respect of Swachh Bharat Mission (SBM).

Sl.	Name of Payee	Amount in Rs.	Bank Details
01.	Asansol Municipal Corporation	5,77,00,000.00	Axis Bank Ltd., Asansol Branch, A/C No.916010002415919 IFS Code.UTIB0000150
L	(Rupees Five C	rore Seventy Seven	

(Md Asif Sardar) Finance Oficer SUDA (Sutanu Prasad Kar) Director

SUDA





"ইলগাস ভবন", এইচ-সি ব্লক, সেক্টর-৩, বিধাননগর, কলকাতা-৭০০ ১০৬, পশ্চিমবঙ্গ "ILGUS BHAVAN", H-C Block, Sector - III, Bidhannagar, Kolkata - 700 106, West Bengal

MA/P/C-10/1G-1/2015	(PtX)/94
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16.04.2018

ক্রমিক নং .....

তারিখ .....

From : Director, SUDA

To

: The Branch Manager,

Axis Bank Ltd.,

Salt Lake, Sector-II Branch,

BJ-110, Sector-II,

Salt Lake City, Kolkata - 700 091.

Sub: Electronic Transfer of Fund debiting this office Current Account No.916010072244925.

Swachh Bharat Mission (SBM)

Sir,

You are requested to kindly arrange for electronic transfer of funds as per details given below debiting the amount from this office Savings Account No.916010072244925 lying with your branch in respect of Swachh Bharat Mission (SBM).

SI.	Name of Payee	Amount in Rs.	Bank Details
01.	Asansol Municipal Corporation	5,77,00,000.00	Axis Bank Ltd., Asansol Branch, A/C No.916010002415919 IFS Code.UTIB0000150
	(Rupees Five C	rore Seventy Seven	

(Md Asif Sardar) Finance Oficer SUDA

(Sutanu Prasad Kar) Director

**SUDA** 

100 04 18





'হিলগাস ভবন'', এইচ-সি ব্লক, সেক্টর-৩, বিধাননগর, কলকাতা-৭০০ ১০৬, পশ্চিমবঙ্গ "ILGUS BHAVAN", H-C Block, Sector - III, Bidhannagar, Kolkata - 700 106, West Bengal

ক্ৰমিক নং 500A-143 / 2016/1336

তারিখ 19.01.2018

From:

Finance Officer, SUDA

To:

Mayor, Asansol Municipal Corporation

#### MEMORANDUM

Sub: Release of fund for SWM phase-I Project of Asansol MC under Mission Nirmal Bangal (U)
/ Swachh Bharat Mission (U)

Sir,

In response to your vide no:- 1702/PW/Eng/17 Dated- 29.11.2017, the Government of India vide GO No:- 1/31/2015-SBM Dated- 27.04.2017 has released Rs. 60200000 (35% of total GOI share) for SWM phase-I Project of Asansol MC under Mission Nirmai Bangla (U) / Swachh Bharat Mission (U).

SI No.	Name of the Payee	Amount (In Rs.)	Payees Bank Details
01.	Asansol Municipal Corporation	25800000	Axis Bank Ltd, Asansol Branch, A/C No. 916010002415919, IFS Code:- UTIB0000150

Yours faithfully,

Finance Officer, SUOA.

The release of fund is also subject to the following conditions:

- 1) The fund should be utilized only for the purpose for which it is released and for no other purpose.
- 2) Works for the released amount should be executed strictly as per scheme Guidelines.
- 3) Monthly report of Physical and Financial progress should be sent to SUDA and MED by the 7<sup>th</sup> of the following month.
- 4) The amount released herein should be kept in the dedicated Bank Account for SBM maintained by the ULBs.
- 5) A subsidiary Cash Book should be maintained for keeping accounts (deposits and withdrawals) of funds.
- 6) Money receipt in Form 42 may be sent immediately after receipt of the online transfer.
- 7) Appropriate amounts should be sub allotted to the concerned ULBs.

Qar 19.01-18

100

Finance Officer, SUDA.

SUDA-143/2016/ 1336/1(1)

19.01.18

Copy Forwarded for kind information of: \*

- Secretary, UD & MA Dept, Govt. of West Bengal. 1.
- Sri B.N.KAR, Addl. Dir. SBM and Addl. Dir. ILGUS. 2.
- Chief Engineer, M.E. Directorate. 3.
- Cashier, SUDA.

Finance Officer, SUDA.





''ইলগাস ভবন'', এইচ-সি ব্লক, সেক্টর-৩, বিধাননগর, কলকাতা-৭০০ ১০৬, পশ্চিমবঙ্গ "ILGUS BHAVAN", H-C Block, Sector - III, Bidhannagar, Kolkata - 700 106, West Bengal

MA/P/C-10/	1G-1/2015	(PtX)/	1338
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19 01 2018 তারিখ .....

ক্রমিক নং .....

From : Additional Director & F.A., SUDA

: The Branch Manager,

Axis Bank Ltd.,

Salt Lake, Sector-II Branch,

BJ-110, Sector-II,

Salt Lake City, Kolkata - 700 091.

Sub: Electronic Transfer of Fund debiting this office Current Account No.916010072244925.

Swachh Bharat Mission (SBM)

Sir / Madam.

I continuation to this office Memo. No.MA/P/C-10/1G-1/2015 (Pt.-X)/1312 dated 17.01.2018, we are to request you to recover the entire amount of fund amounting to Rs.6,02,00,000/- (Rupees Six Crore Two Lakh) only from the bank account of Asansol Municipal Corporation held with Axis Bank Ltd., Asansol branch (Account No.916010002415919) since the aforesaid fund was transferred by this office inadvertently.

Immediately after recovery of the same, you are requested to transfer Rs.2,58,00,000/-(Rupees Two Crore Fifty Eight Lakh) only to the above stated bank account of Asansol Municipal Corporation (Axis Bank Ltd., Asansol branch, Account No.916010002415919).

Ray 19.01.18

(Md Asif Sardar) **Finance Officer** SUDA

(Amalendu Sekhar Naskar) Addl. Director & F.A. SUDA

mok &

19.01.18

Copy forwarded for information to -

01. The Branch Manager, Axis Bank Ltd., Asansol Branch.

02. The Municipal Commissioner, Asansol Municipal Corporation.

Recived to blockery -

(Md Asif Sardar) Finance Officer SUDA

দরভাষ : ২৩৫৮ ৬৪০০ / ৫৭৬৭, ফাব্র : ২৩৫৮ ৫৮০০

Tel: 2518 6403/5767, Fax: 2558 5800, E-mail: wbs: andir@gmail.com



## রাজ্য নগর উল্লেখ সংস্থা



## STATE URBAN DEVELOPMENT AGENCY

"ইলগাস ভবন", এইচ-সি ব্লক, সেক্ট্র-৩, বিং নেনগর, কলকাতা-৭০০ ১০৬, পশ্চিমবঙ্গ "ILGUS BHAVAN", H-C Block, Sector - III, hannagar, Kolkata - 700 106, West Bengal

MA/P/C-10/1G-1/2015 (F.-A)/ 1338

12018-3

তারিখ .....

क्राधिक मर

From : Additional Director & F.A., SUDA

To

: The Branch Manager,

Axis Bank Ltd.,

Salt Lake, Sector-II Branch,

BJ-110, Sector-II,

Salt Lake City, Kolkata - 700 091.

Sub: Electronic Transfer of Fund debiting this office Current Account No.916010072244925.

Swachh Bharat Mission (SBM)

Sir / Madam,

1 continuation to this office Memo. No.MA/P/C-10/1G-1/2015 (Pt.-X;/1312 dated 17.01.2018, we are to request you to recover the entire amount of fund amounting to Rs.6,02,00,000/- (Rupees Six Crore Two Lakh) only from the bank account of Asansol Municipal Corporation held with Axis Bank Ltd., Asansol branch (Account No.916010002415919) since the aforesaid fund was transferred by this office inadvertently.

Immediately after recovery of the same, you are requested to transfer Rs.2,58,00,000/-(Rupees Two Crore Fifty Eight Lakh) only to the above stated bank account of Asansol Municipal Corporation (Axis Bank Ltd., Asansol branch, Account No.916010002415919).

(Md Asif Sardar) Finance Officer SUDA (Amalendu Sekhar Naskar) Addl. Director & F.A. SUDA

mkk

\* Copy forwarded for information to -

01. The Branch Manager, Axis Bank Ltd., Asansol Branch.

02. The Municipal Commissioner. Asansol Municipal Corporation.

(Mrl Asif Sarder) Pinone Office: Suppl



## রাজ্য নগর উন্নয়ন সংস্থা



## STATE URBAN DEVELOPMENT AGENCY

"ইলগাস ভবন", এইচ-সি ব্লক, সেক্টর-৩, বিধাননগর, কলকাতা-৭০০ ১০৬, পশ্চিমবঙ্গ "ILGUS BHAVAN", H-C Block, Sector - III, Bidhannagar, Kolkata - 700 106, West Bengal

ľ	MA/P/C	-10/1G-	1/2015	(PtX)/	131	2
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17.01.2018

ক্রমিক নং .....

তারিখ .....

From : Additional Director & F.A., SUDA

To : The Branch Manager,

Axis Bank Ltd.,

Salt Lake, Sector-II Branch,

BJ-110, Sector-II,

Salt Lake City, Kolkata - 700 091.

Sub: Electronic Transfer of Fund debiting this office Current Account No.916010072244925.

Swachh Bharat Mission (SBM)

Sir,

You are requested to kindly arrange for electronic transfer of funds as per details given below debiting the amount from this office Savings Account No.916010072244925 lying with your branch in respect of Swachh Bharat Mission (SBM).

SI.	Name of Payee	Amount in Rs.	Bank Details
01.	Asansol  Municipal Corporation	6,02,00,000.00	Axis Bank Ltd., Asansol Branch, A/C No.916010002415919 IFS Code.UTIB0000150
	(Rupees S	Six Crore Two Lakh	only)

(Md Asif Sardar) Finance Officer

**SUDA** 

(Amalendu Sekhar Naskar) Addl. Director & F.A.

ones

SUDA

দূরভাষ ঃ ২৩৫৮ ৬৪০৩ / ৫৭৬৭, ফা জ ঃ ২৩৫৮ ৫৮০০

Tel: 2358 6403/5767, Fax: 2358 5800, E-mail: wbsudadir@gmail.com



## রাজ্য নগর উন্নয়ন সংস্থা



## STATE URBAN DEVELOPMENT AGENCY

''ইলগাস ভবন'', এইচ-সি ব্লক, সেক্টর-৩, বিধাননগর, বলকাতা-৭০০ ১০৬, পশ্চিমবঙ্গ "ILGUS BHAVAN", H-C Block, Sector - III, Bidhannagar, Kolkata - 700 106, West Bengal

MA/P/C-10/1G-1/2015	(PtX)/	13/2
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17.01.2018

ক্রমিক নং .....

তাবিখ

From : Additional Director & F.A., SUDA

To : The Branch Manager,

Axis Bank Ltd.,

Salt Lake, Sector-II Branch,

BJ-110, Sector-II,

Salt Lake City, Kolkata - 700 091.

Sub: Electronic Transfer of Fund debiting this office Current Account No.916010072244925.

Swachh Bharat Mission (SBM)

Sir,

You are requested to kindly arrange for electronic transfer of funds as per details given below debiting the amount from this office Savings Account No.916010072244925 lying with your branch in respect of Swachh Bharat Mission (SBM).

SI.	Name of Payee	Amount in Rs.	Bank Details
01.	Asansol  Municipal Corporation	6,02,00,000.00	Axis Bank Ltd., Asansol Branch, A/C No.916010002415919 IFS Code.UTIB0000150
	(Rupees S	Six Crore Two Lakh	only)

(Md Asif Sardar) **Finance Officer SUDA** 

(Amalendu Sekhar Naskar) Addl. Director & F.A.

Brows

## GOVERNMENT OF WEST BENGAL



Department of Municipal Affairs

Writers' Buildings

Tel:22141627

Fav

Date: 25/05/2017

Kalkata

Memo No : 114(Sanction)/MA/P/C-10/1G-4/2017

Sanction Order for Grant-in-Aid

2017 - 2018

Demand No.: 72

Department Code: MA

Financiai Yeal.

1. Sanctioning Authority: Municipal Afrairs

- Name of the Grantee Institution: State Urban Development Agency
- 3. Address of the Grantee Institution: ILGUS Bhavan, HC Block, Sector IIISalt Lake, Kolkata 700 106
- 4. Category of Grantee Institution Others
- Amount Sanctioned: 1451500000 (in words Rs. One Hundred Forty Five Crore Fifteen Lakh Only.)
- 6 Name of the DDO: DIRECTOR, SUDA
- 7. Department Code: MA-Urban Development and Municipal Affairs (Municipal Affair)
- 8. Name of the Treasury/PAO:Pay & Accounts Officer-III, PAO-III
- 9. Nature of Grant
- (a) Recurring or Non-recurring: Non-Recurring
- (b) Capital or Revenue: Revenue
- 10. Condition of Grant
- Utilisation Certificate required: Yes
- 11. Category of Grant: Others
- 12. Purpose of Grant: Central Share for Implementation of 10 Solid Waste Management Projects under different ULBs and HHLS
- 13. An amount of Rs 1451500000 is hereby allotted for this period in favour of the DIRECTOR, SUDA From the head of account 2215-02-789-SP-002-35-00-V from the budget provision of the financial year, 2017 - 2018 under Demand No.72 Department Code MA and payable to Grantee Institution or by A/c payee cheque/by transfer credit.
- 14. Head of Account Code :2215-02-789-SP-002-35-00-V
- 15. Name of the Scheme :Swachh Bharat Mission (Urban)(Central Share)(OCASPS)-35-Grants for creation of Capital Assets. 16. The amount will be drawn in T.R. from No.31/32/43
- 17. The sanctioned amount will be payable to State Urban Development Agency by Transfer Credit to the Head of Account of the LF/PL/Deposit Account of the Grantee Institution or by A/C payee Cheque as applicable

Central Share to the tune of Rs. 145.15 crime has been released for implementation of 10 SVM Projects 18. Remarks: under the ULBs as indicated in No.1/31/2015- SBM dated 27.04.2015 and IHHLs. Director SUDA will draw the amount by separate Grant-in-Aid bill in TR form 31 & deposit the same into separate Bank A/c since opened for SBM & transfer the same to the competent authority as per scheme guidelines.

19. Total released amount is within the Budget Provision of the above mentioned head of account during 2017 - 2018

20. This order issues in exercise of the power delegated under Finance Department Memo. No. 460-F.B. dated 21.07.2015, 1020-F.B. dated 27.11.2015, 1200-F.B. dated 30.12.2015 & 1250-F.B. dated 13.01.2016 with the concurrence of Finance Deptt. vide Gr. 'N U.O. No. '0262 Date 16/05/2017

Municipal Affairs

#### Memo Date: 25/05/2017

Copy forwarded for information and necessary action to:-

- 1. The Principal Accountant General (A&E), Treasury Buildings, Kolkata-700001
- 2. The Principal Accountant General (Audit). Tressury Buildings. Kolketa-700001
- 3. The Principal Accountant General (Receipt, Works &Local Bodies Audit) CGO Complex at Satt Lake Kolkata-700091
- 4 DIRECTOR, SUDA
- 5 Pay & Accounts Officer-III, FAC-III
- 6. Finance Department (Gr 'R'/N')
- 7. Financial Advisor to this Department
- 8. Sr. P.A.to the Secretary, UD & MA Department

JOINT SECRETARY

151

#### Memo No:114(Sanction)/MA/P/C-10/1G-4/2017

#### Memo Date: 25/05/2017

#### Sub-Alloting Officer / DDO wise Alloted Amount Summary

Amount		Sub-Alloting Code / DDO Code Designation	SINo.
1,451,500,000.00	Pouls	CAFUDA002-DIRECTOR, SUDA	1,
1,451,500,000,00	1		

JOINT SECRETARY

Educately of Affairs

150

### Annexure of Memo No- 114(Sanction)/MA/P/C-10/1G-4/2017 Date- 25/05/2017

Allotment From Department - MA-Urban Development and Municipal Affairs (Municipal Affair) to - CAFUDA002-DIRECTOR, SUDA

Treasury Name : PAO-III Pay & Accounts Office-III,

(Urban)(Central Capital Assets Share)(OCASPS)-35-Grants	1D	Head of Account	Scheme Description	Object of Expenditure	Alioted Amount
iof création of Cabital Assets.	254737	2215-02-769-SP-002-05-00-V	(Urban)(Central	Capital Assets	145150000

JOINT SECRETARY

Municipal Affairs





### **GOVERNMENT OF WEST BENGAL**

Department of Municipal Affairs Writers' Buildings

Fax.

Tel: 22141827

Kolkata

Memo No : 115(Sanction)/MA/P/C-10/1G-4/2017

Sanction Order for Grant in Aid

Date: 25/05/2017

Demand No.: 72

Department Code : MA

Financial Year

2017 2018

1. Sanctioning Authority: Municipal Affairs

- 2. Mame of the Grantee insulution. State Urban Development Agency
- 3. Address of the Grantee Institution: ILGUS Bhavan, HC Block, sector III. Sall Lights, Kolkata 700 106
- 4. Category of Grantee Institution: Others
- 5. Amount Sanctioned: 1728427628 (in words Rs. One Hundred Seventy Two Crore Eighty Four Lakh Twenty Seven Thousand Six Hundred Twenty Eight Only.)
- 5. Name of the DDO: DIRECTOR, SUDA
- 7. Department Code: MA-Urban Development and Municipal Affairs (Municipal Affair)
- 8. Name of the Treasury/PAO:Pay & Accounts Officer-III, PAO-III
- 9. Nature of Grant
- (a) Recurring or Non-recurring: Non-Recurring
- (b) Capital or Revenue: Revenue
- 10. Condition of Grant

Utilisation Certificate required: Yes

- 11. Category of Grant ; Others
- 12. Purpose of Grant : State Share (Matching& Additional State Share) for implementation of 10 SWM Projects and IHHLs uder Different ULBs
- 13. An amount of Rs 1728427628 is hereby afforted for this period in favour of the DIRECTOR, SUDA From the head of account 2215-02-789-SP-003-35-00-V from the budget provision of the financial year, 2017 - 2018 under Demand No.72 Department Code MA and payable to Grantee institution or by A/c payee cheque/by transfer credit.
- 14. Head of Account Code: 2215-02-789-SP-003-35-00-V
- 15. Name of the Scheme :Swachh Bharat Mission (Urban)(State Share)(OCASPS)-35-Grants for creation of Capital Assets.
- 16. The amount will be drawn in T.R. from No.31/32/43
- 17. The sanctioned amount will be payable to State Urban Development Agency by Transfer Credit to the Head of Account of the LF/PL/Deposit Account of the Grantee Institution or by A/C payee Cheque as applicable
- State Share (Matching & Additional) to the tune of Rs. 1728427628/- has been released against Central Share Released vide G.O.No.114(Sanction)/MA Dt. 25.05.2017 for implementation of 10 SWM Projects under different ULBs as indicated in G.O. No. 1/31/2015 - SBM dt. 27.04.17 and IHHLs under SBM. Director, SUDA will draw the amount by separate Grant-in-Aid bill in TR form 31 & deposit the same into separate Bank A/c since opened for SBM and transfer the same to the competent authority.
- 19. Total released amount is within the Budget Provision of the above mentioned head of account during 2017 2018
- 20. This order issues in exercise of the power delegated under Finance Department Memo. No. 1836-F.B. dated-31.03.2017 with the concurrence of Finance Deptt, vide Gr. 'N U.O. No. 0262 Date 15/05/2017

Municipal Affairs

## Memo No:115(Sanction)/MA/P/C-10/1G-4/2017

### Memo Date: 25/05/2017

## Sub-Alloting Officer / DDO wise Alloted Amount Summary

	Amount
Si No. Sub-Alloting Code / DDO Code Designation	1,728,427,628.00
1. CAFUDA002-DIRECTOR, SUDA	1,728,427,628.00

JOINT SECRETARY

Municipal Affairs

Annexure of Memo No- 115(Sanction)/MA/P/C-10/1G-4/2017 Date- 25/05/2017

Allotment From Department - MA-Urban Development and Municipal Affairs(Municipal Affair) to - CAFUDA002-DIRECTOR, SUDA

Treasury Name : PAO-III Pay & Accounts Office-III,

ID	Head of Account	Scheme Description	Object of Expenditure	Alloted Amount
284738	2215-02-789-SP-003-35-00-V	Swachh Bharat Mission (Urban)(State Share)(OCASPS)-35-Grants for creation of Capital Asset	Grants for creation of Capital Assets s	1728427628
		tot oresiton of oup tark to a		1,728,427,628.00

JOINT SECRETARY

Municipal Affairs



#### No. 1/31/2015-SBM Government of India Ministry of Urban Development

Nirman Bhawan, New Delhi Dated the 27th April, 2017

To

The Pay & Accounts Officer (Sectt ) Ministry of Urban Development New Delhi-110011

Subject: - Release of 1st installment to Govt. of West Bengal in respect of Solid Waste Management Projects under Swachh Bharat Mission during 2017-18 - reg.

Sir,

I am directed to convey the sanction of competent authority for release of Rs. 53,44,00,000/- (Rupees Fifty three crore and forty four lakh only) to Govt. of West Bengal towards release of 50% of 35% VGF as 1st installment for Solid Waste Management Project under Swachh Bharat Mission (Urban) during 2017-18. Details are as under:-

(Rs. in Crore) SI. Project 35% 1st Name of Projects No. Cost VGF Installment Dum Dum, North Dum Dum, South Dum Dum and 1. 55.73 19.51 9.755 Baranagar Municipalities (Phase-I) 2. 5.655 Habra and Ashoknagar-Kalyangarh Municipalities 32.32 11.31 3. Jalpaiguri Municipality 12.88 4.51 2.255 Krishnanagar Municipality 18.33 6.42 3.210 5, Santipur Municipality 18.19 6.37 3.185 5.24 6. Nabadwip Municipality 14.98 2.620 7. Bhatpara Municipality 14.64 41.82 7.320 8. Naihati Municipality 40:21 14.07 7.035 Integrated Solid Waste Management of Kolkata MC 152.83 53.49 26.745 Asansol Municipal Corporation 34.40 12.04 6.020 Total 421.69 147.60 73.800 Unspent balance 20.360

2. The sanction will be regulated in accordance with the provisions of GFR, 2017.

Net amount

- 3. The expenditure is debitable to Major Head 3601-(Grants-In-Aid to State Govts.)-06-(Centrally Sponsored Schemes)-101-(Central Assistance/Share)-22-(Swachh Bharat Mission)-03-Project Fund-35-Grants for creation of Capital Assets under Demand No. 97 for the year 2017-18 of the Ministry of Urban Development.
- 4. The amount will be credited to the State Government's account to RBI as per procedure laid down by Ministry of Finance, Department of Expenditure vide O.M. No. F-II (45/76/SC) dated 22.02.1977.
- In addition to the entire Scheme being governed by the Guidelines of the Swachh Sharat Mission (SSM) which is available at <a href="https://www.moud.gov.in">www.moud.gov.in</a> and following the same while releasing funds to the beneficiaries/ULBs, the release of funds for the Solid Waste the SBM guidelines.
- 6. Entry has been made at SI. No. 8 of Grant-in-aid Register for the year 2017-18.
- 7. No U.C. is pending for this project from Govt, of West Bengal.

IVM).

53,440



## ASANSOL MUNICIPAL CORPORATION

Dr. G. R. Mitra Sarani, P.o.- Asansol, Dist. Burdwan, West Bengal

Mayor's Chamber

: 230 2370

Chairman's Chamber : 230 9225

Mayor's Chamber : 230 9479

ommissioner

: 230 2491

General Off. (Asl.)

: 230 2219 / 230 9476



Engg Dept.

: 230 9476

Raniganj Office

: 0341-2444825

Jamuria Office

: 0341-2455562 / 2455984

Kulti Office

: 0341-2514332

Ref. No. 1702/PW/E

To The Director, State Urban Development Agency (SUDA), ILGUS Bhavan, Block-HA, Sector III, Salt Lake, Kolkata 700 106



Date 29/11/2017

Subject: Request for Release of Balance fund for SWM Phase I Project « under Mission Nirmal Bangla under SBM (U)

Sir,

With reference to the above this is to bring to your kind notice that SWM Phase I Project under Mission Nirmal Bangla under SBM (U) for Asansol Municipal Corporation was approved with a projects cost of Rs. 34.40 Cr.

As per DPR proposed fund allocation is as follows:

Source of fund	Rs in Cr.
MP's Local Area Development	0.72
Central Share Under SBM	11.79
HUDCO Share/Loan	21.90
Total	34.41

However, we are facing lots of problem to receive fund from MP's Local Area Development and HUDCO, though the procurement of vehicle as per the project has already been started & we have received only Rs. 3.44 Cr.

Therefore, as per the decision of the authority said fund i'e. Rs.( 0.72 Cr.+Rs. 21.90 Cr)=Rs.22.62 Cr. for the project will be met up from the State Government.

So you are requested to kindly look into the matter toward releasing of balance fund i'e Rs. 30.96 Cr. including Central Share under SBM.

Yours faithfully

Asansol Municipal Corporation Asansol Municipal Corporation

Copy forwarded for kind information to:

Memo no.

- 1. The Secretary, U.D. & M.A Department, Government of West Bengal,
  - "Poura Prasasan Bhavan", Block DD 1, Sector 1, Salt Lake City, Bidhannagar, Kolkata - 700064
- 2. The Commissioner, Asansol Municipal Corporation.
- 3. The Secretary, Asansol Municipal Corporation.
- 4. The Superintending Engineer, AMC

Mayor Asansol Municipal Corporation



#### FILE No. MA/P/C-10/1G-1/2015(Pt-X)

We may have no objection to accord Administrative approval for the Integrated Solid Waste Management Project in Asansol Municipal Corporation under Swaccha Bharat Mission (Urban) at an estimated cost of Rs. 3440 lakh subject to observance of all financial norms and subject to concurrence of Group N as GOI's share (35%) is involved in this project.

Sd/- R. Bandyopadhyay 02/03/2017

We may also accord approval for the scheme Integrated Solid Waste Management Project in Asansol Municipal Corporation under "Mission Nirmal Bangla (Urban) / Swachh Bharat Mission (Urban)". Fund will be released after acceptance of Central Assistance.

Sd/- P. Chakraborty 16.03.2017

Sd/- S. Sinha 16.03.2017

Sd/- P. Yadav 17.03.2017

Sd/- H. K. Dwivedi (Principal Secretary) 20.03.2017

Group 'N' U.O. No: 3926 U.O. Date: 23.03.2017

To

The M.A. Department

24.3.17

S.O., Finance Department

JS (1. hlood)

Finance Department Group - R

Group - 124.3.2017

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### Government of West Bengal Department of Urban Development & Municipal Affairs Poura Prashasan Bhavan, DD-I, Sector-I, Salt Lake City, Kolkata - 700 064

No.297 /MA/C-10/1G-1/2015 Pt.

Dated, Kolkata, the 5th day of April, 2017

From : Joint Secretary to the Government of West Bengal

The Director,

State Urban Development Agency,

ILGUS Bhavan, Block HA, Sector III, Salt Lake

Kolkata 700 106

Sub: Administrative Approval for Implementation of Integrated Solid Waste Management Project

With reference to above, I am directed to inform you that in principal Administrative approval for Sir, the schemes as stated in Annexure - I are hereby accorded to trive necessary steps for Implementation of Integrated Solid Waste Management Project in different ULBs; subject to strict observance of all relevant rules & regulations of the State Government issued time to time including e-tendering.

Necessary fund will released in due course as per availability of fund upon receipt of the copy of the e-tender notice, work order and certificate regarding e-tender/-procurement from concerned ULBs.

This letter is issued with the approval of appropriate authority of this Department

Enclo. As stated

Joint secretary to the Government of West Bengal

#### Government of West Bengal Department of Urban Development & Municipal Affairs Poura Prashasan Bhavan, DD-I. Sector-I. Salt Lake City, Kolkata - 700 064

No.344 / MA/P/C-10/1G-1/2015 (Pt. X)

Dated, Kolkata, the 18th day of April, 2017

From : Joint Secretary to the Government of West Bengal

The Director

State Urban Development Agency

ILGUS Bhavan, Block HC

Sector III, Salt Lake, Kolkata 700 106

Sub: Submission of Documents for availing Loan assistance from HUDCO for Solid Waste Management Scheme at Asansol (Ph-I)

Ref: No.KRO-Sch/SWM-Asansol/43 dated 07.04.2017 Jt. General Manager (Project), HUDCO

Sir.

In inviting a reference to above, I am directed to forward herewith a copy of letter No. KRO-Sch/SWM-Asansol/43 dated 07.04.2017 of Jt. General Manager (Project), HUDCO and to request you to take necessary action in respect of availing 'Loan assistance from HUDCO for Solid Waste Management Scheme at Asansol (Ph-I)'.

I am further directed to state the concurrence of in principal administrative approval has been obtained from Finance Department (Gr. 'N') vide U.O. No. 3926 dated 23..2017 and the same as been communicated to you through this Department's letter No. 97/MA/C-10/1G-1/201 Pt. dated 5.04.2017.

Yours faithfully.

Joint secretary to the Government of West Bengal

No.344/1/ MA/P/C-10/1G-1/2015 (Pt. X)

Dated, Kolkata, the 18th day of April, 2017

Copy forwarded for information to

Sri Debesh Chakraborty Jt.General Manager (Project), HUDCO, 'HUDCOBhavan, Plot No.11, Block DJSector -II, Karunamoyee, Salt Lake, Kolkata 700 091 - with reference to his letter No. . KRO-

Sch/SWM-Asansol/43 dated 07.04.2017

149

# Government of West Bengal Department of Urban Development & Municipal Affairs Poura Prashasan Bhavan, DD-I, Sector- I, Salt Lake City, Kolkata – 700 064

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Dated, Kolkata, the Aday of April, 2017

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To :

The Director

State Urban Development Agency

ILGUS Bhavan, Block HC

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Yours faithfully,

Joint secretary to the Government of West Bengal

344/1

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Joint Secretary

-146

1.

#### हाउसिंग एण्ड अर्बन डेवलपर्मेट कॉर्पोरेशन लिमिटेड (भारत सरकार का उपक्रम) कोलकाता क्षेत्रीय कार्यालय

''हडको भवन'', प्लॉट सं. 11, ब्लॉाक – डी.जे, सेक्टर-II, करूणामयी, साल्ट लेक, कोलकाता – 700 091 दूरभाष : (033) 2358 6141, 2358 0773, 2358 0778, फैक्स : (033) 2358 5514, ईमेल : hudcokro@gmail.com

Housing and Urban Development Corporation Limited
(A Govt. of India Enterprise)

(A Govt. of India Enterprise)

Kolkata Regional Office

"HUDCO Bhawan", Plot No. 11, Block-DJ, Sector-II, Karunamoyee, Salt Lake, Kolkata - 700 091 Tel.: (033) 2358 6141, 2358 0773, 2358 0778, Fax: (033) 2358 5514, e-mail: hudcokro@gmail.com

No: KRO-Sch/SWM-Asansol/ 43

Date: 07.04.2017

The Hon'ble Mayor, Asansol Municipal Corporation, Station Road, Asansol-713301 Burdwan, West Bengal

Sub.: Proposal for availing HUDCO Loan assistance for Solid Waste

Management Scheme at Asansol(Ph-I)

Ref.: Sanction Letter No. 262 dated 08/12/2016.

Sir,

This is to inform you that above scheme was sanctioned by HUDCO with Loan Assistance of Rs.21.90 crores under Viability Gap Funding which was conveyed vide HUDCO Sanction Letter No.262 dt.08.12.2016. The scheme with Project Cost of Rs.34.40 crores will be funded by Govt. of India under Swatchch Bharat Mission and MPLAD apart from HUDCO Loan Assistance. It is to mention that the aforesaid scheme was formulated with the support of the Govt. of West Bengal and as per the discussion in the meeting of the Hon'ble Minister of Urban Development and Municipal Affairs, Govt. of West Bengal and Hon'ble Minister of State, Ministry of HUPA, Govt. of India at Kolkata on 15.07.2016.

In terms of the HUDCO Sanction Letter under reference the documentation of the scheme is required to be completed by the borrowing agency within a period of 4 months. In case there is delay in completion of documentation within the above stipulated period, request for extension of validity of the scheme is required to be furnished by the borrowing agency. The documentation essentially includes furnishing of the required security which is Government Guarantee and Budgetary Provision of the State Government for Loan Repayment and compliance of various Sanction Conditions as indicated in the HUDCO Sanction Letter dt 08.12.2016 (Copy of which is enclosed). HUDCO officials had interacted with the AMC officials to expedite documentation of the Scheme.

In view of above, it is requested to your goodself to kindly arrange to complete documentation of the scheme with furnishing of the required security, compliance of terms and conditions of HUDCO Sanction Letter and execution of Loan Agreement to enable HUDCO to release loan instalment under the scheme, furnish request for

स्डको hudco आई एस ओ 9001:2008 प्रमाणित कम्पनी

AN ISO 9001:2008 CERTIFIED COMPANY CIN: U74899DL1970GOI005276

पंजीकृत कार्यालय : कोर -7'ए', हडको, हडको भवन, इंडिया हैबीटेट सेन्टर, लोधी रोड, नई दिल्ली - 110003 दूरमाष : 011-2464 9610-23, फैक्स : 011-2462 5308, ईमेल : hudco@hudco.org, Visitus at: www.hudco.org Regd. Office: Core - 7'A', HUDCO, HUDCO Bhawan, India Habitat Centre, Lodhi Road, New Delhi - 110 003 Tel: (EPABX) 011-2464 9610-23, Fax: 011-2462 5308, e-mail: hudco@hudco.org; Visitus at: www.hudco.org Guna ver

DEPARTMENT OF URBAN ELOPMENT AND MUNICIPAL AFFAIRS
GOVI OF W.B.

DT. 13-04-2017

Whenter wifile

extension of validity of scheme as mentioned above and acceptance of the HUDCO loan Sanction letter dt.08.12.2016.

Thanking you,

Yours faithfully,

(Debesh Chakraborty)
Jt.General Manager(Project)

Copy to :- Shri Omkar Singh Meena, IAS, Secretary, Urban Development and Municipal Affairs Deptt., Govt. of West Bengal, "NAGARAYAN", Block - DF - 8, Sector - I, Behind Bikash Bhawan, Solitate - Rolling - R

(Debesh Chakraborty)
Jt.General Manager(Project)

400 /25/2m/2

146

Government of West Bengal
Department of Urban Development & Municipal Affairs
Poura Prashasan Bhavan, DD-I, Sector- I,
Salt Lake City, Kolkata – 700 064

No.297 /MA/C-10/1G-1/2015 Pt.

Dated, Kolkata, the 5th day of April, 2017

From : Joint Secretary to the Government of West Bengal

To :

The Director.

State Urban Development Agency,

ILGUS Bhavan, Block HA, Sector III, Salt Lake

Kolkata 700 106

Sub: Administrative Approval for Implementation of Integrated Solid Waste Management Project

Sir,

With reference to above, I am directed to inform you that in principal Administrative approval for the schemes as stated in Annexure – I are hereby accorded to take necessary steps for Implementation of Integrated Solid Waste Management Project in different ULBs; subject to strict observance of all relevant rules & regulations of the State Government issued time to time including e-tendering.

Necessary fund will released in due course as per availability of fund upon receipt of the copy of the e-tender notice, work order and certificate regarding e-tender/-procurement from concerned ULBs.

This letter is issued with the approval of appropriate authority of this Department

Enclo. As stated

Yours faithfully,

Joint secretary to the Government of West Bengal



Name of the Project including ULB	U.O. No. & Date of F.D. (Gr'N')	Total Estimated Cost (Rs. In lakh)	Central Share (Rs. in lakh)	State Share (Rs. In lakh)	ULB Share (Rs. In lakh)
Integrated Solid Waste Management Project (Phase – I) within Dum Dum, North Dum Dum, South Dum Dum & Baranagar Municipality	3435 03.03.2017	5573.00	1950.66	3343.68	278.66
Integrated Solid Waste Management Project within Naihati Municipality	3395 01.03.2017	4021.00	1407.14	2412.23	201.63
Integrated Solid Waste Management Project Within Bhatpara Municipality	3472 07/03/2017	4182.0	1463.61	2509.a06	209.33
Integrated Solid Waste Management Project within Santipur Municipality	3925 23.03.2017	1819.14	636.699	1019.484	90.957
Integrated Solid Waste Management Project within Jalpaiguri Municipality	3927 23.03.2017	1288.15	450.85	772.89	64.41
Integrated Solid Waste Management Project in Nabadwip Municipality	3920 23.03.2017	1498.44	524.45	899.06	74.93
Integrated Solid Waste Management Project within Krishnagar Municipality	4011 27.03.2017	1833.81	641.83	1100.29	91.69
Integrated Solid Waste Management Project in Ashokenagar- Kalyangarh & Habra Municipality	3693 16.03.2017	3232.20	1131.27	1939.32	161.61
Integrated Solid Waste Management Project within Asansol Municipal Corporation	3926 23.03.2017	3440.00	1179.00	-	-

Joint Secretary

#### STATEMENT - A

#### Administrative Approval and Plan Release

(For CS/CN form 'C' and for EAP form 'D' should also be used)

Name of the scheme with locational details 1.

Integrated Solid Waste Management Project in

Asansol M.C.

Type of the Scheme Whether a new scheme of the year or an

Centrally Sponsored Scheme

ongoing scheme (Furnish a copy of G.O. regarding Administrative Approval in case of On going Scheme)

New Scheme

Date of Administrative Approval 4.

Original Project Cost

2.

3.

6. Date of commencement of work

7. **Expected Duration** 

8. Phasing of Expenditure

Year

Amount to be Spent

Whether clearance from authorities like SPB/ SLSSFC/ GFC etc obtained, if so whether copies of their approval attached

10. Budget Provision (Excluding Incentive) Head of Account-wise

11. Cumulative Release Head of Account-wise (Propoled)

12. Balance Available Head of Account-wise

13. Expenditure Incurred Head of Account-wise

14. Physical Achievement

15. Amount for which Utilisation Certificate submitted

16. Amount requested for Release Head of Account-wise

17. Detailed Justification of the Project

Not required

1. 39-2215-02-789-SP-002-35-00 Rs.15000.00 lakh

2. 39-2215-02-789-SP-003-35-00 Rs.10000.00 lakh

1. 39-2215-02-789-SP-002-35-00 Rs.9915.771 Lakh

2. 39-2215-02-789-SP-003-35-00 Rs. 9681.78655 Lakh

1. 39-2215-02-789-SP-002-35-00 Rs. 5084.289 lakh

2. 39-2215-02-789-SP-003-35-00 Rs. 218.02135 Lakh

1. 39-2215-02-789-SP-002-35-00 Nil

2. 39-2215-02-789-SP-003-35-00 Rs. 7756.97865 Lakh

> N.A N.A.

1. 39-2215-02-789-SP-002-35-00 Rs.1179.00 lakh

39-2215-02-789-SP-003-35-00 Nil

Solid Waste Management Project in Asansol Municipal Corporation to keep the city clean.

Gautam De, WBSS Deputy Secretary UD & MA Deptt. (Municipal Alders Describ) Government of West Bengal



#### **NOTE SHEET**



#### 2017

#### STATE URBAN DEVELOPMENT AGENCY **NOTE SHEET** File No. 143/2016

Sub: Request for release of balance fund for SWM Phase-I Project of Asansol MC under Mission Nirmal Bangla (U)

The Hon'ble Mayor, Asansol Municipal Corporation vide no. 1702/PW/Eng/17 dated 29.11.2017 (placed at CP-1) informed that the Solid Waste Management Project Phase-I under Mission Nirmal Bangla (U) for Asansol Municipal Corporation was approved with a total project cost of Rs. 34.40 Crore. As per DPR proposed fund allocation is placed below:

Source of Fund	Rs, in Crore 11.79	
Central Share under SBM(U)		
MP's Local Area Development	0.72	
Loan from HUDCO	21.90	
Total	34.40	

In this connection he has further informed that they are facing lots of problem to receive fund from MP's Local Area Development and Loan from HUDCO, though the procurement of vehicle as per the project has already been started and they have received only Rs. 3.44 Crore as part of central share.

He has further stated that as per decision of the authority said fund i.e. Rs. (0.72 Cr. +Rs. 21.90 Cr. ) = Rs. 22.62 Crore for the project will be met from the State Government.

Now he has requested to kindly look into the matter towards realizing of balance fund i.e. Rs. 30.96 Crore including Central Share under SBM (U).

In this connection directions on the following issues are requested:

1. Government of India vide GO no. 1/31/2015-SBM dated 27.04 2017 (placed at CP-2) informed that Total Project Cost of SWM Project of Asansol MC is Rs. 34.40 Crore out of that GoI share i.e. 35% VGF is Rs. 12.04 Crore, out of which GoI released Rs. 6.02 Crore to State Government. After that Rs. 3.44 Crore was released to Asansol MC.

Now, it is being proposed that the remaining (Rs. 6.02 - Rs. 3.44) Crore i.e. Rs. 2.58 Crore present in the hand of SUDA may be released to Asansol MC.

2. A direction is required regarding release of remaining total Rs. 22.62 Crore (Rs. 0.72 Cr from MP LAD and Rs. 21.90 Cr. HUDCO Loan) from State Fund.

Placed for kind information and direction.

(Sujay Mitra) / Poverty Monitoring Expert, CMU

Additional State Mission Director, MNB (U)

Notes above may kindly be penned.
The find somees as per DPR is detailed at It above. may
Non the minipal comparation is regresting

Fund allocation from the State fund instead of M.P. LAD and HUDCO LOEN This amount is \$5,22.62 crose.

A policy decision reguling allocation of this ford from state plan way kindly by talan.

Hydry with SUDA 1 RS. 2.58 crone way be released in favor of Asansol wincipy Confarshon.

Director Secretary Debt.

placed for kind consideration.

And Sept May be Consideration to Some South of Strains of the Sept of

U.O. No. SUDA: 65 2/17

Dated 08:12:17

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SSC Shhah

Dr place in deptt file when For appoint was a worded

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#### NOTE SHEET



#### 2017

#### STATE URBAN DEVELOPMENT AGENCY NOTE SHEET File No. 143/2016

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Additional State Mission Director, MNB (U)

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Hying with SUDA 1 RS. 2.58 come way be released in favor of Asarsol wincipy Confunction.

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And sold of the kind consideration.

May be considerated to the sold of the so

3. No. SUDA: 65 2/17 08.12.17 t. 143/2016

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#### NOTE SHEET



The apenda note for the meeting of State High Powered Committee under Minion Hirmal Bangla (Urban) to be held on 05.01.2017 at Nabanna is placed in the file for kind approval and circulation to the members.

May be approved.

May be approved.

May hinsty to poised suppo

Director, Supt erreter/, up 14 Dept and ainfam SNOA

Covering W KARC, Estansol, By Dum Dum/268th Dumm Jun South Dum Dum/Baratogar,

(4) Haska Sokengan (6) Jalpaiguri (6) (Krishagan 7) Santipun (8) xladadrip (9) Chatpara and To Maihati are prepared and technically appraised. These DDR's will be placed in meeting of CS or OSTA Jan 2017, if approved.

HAMIC AMEUP

Transfer AMD (SBM)

24/1/17

# 13

# Mission Nirmal Bangla (Urban) /Swachh Bharat Mission (Urban)

## Agenda Item No.-1

## **DPRs for Solid Waste Management Projects**

 Approval of Integrated Solid Waste Management Project for Kolkata Municipal Corporation with a total project cost of Rs. 152.83 Crore, earlier appraised by CPHEEO.

The Salient features of the Project:

- Primary Collection and Storage System including procurement of Push Carts, Wheel Barrow, Pedal Tricycle Van, Auto Tippers, Movable & Stationary Compactors etc.
- Transfer Stations for one, two, three and four container Compactor Stations.
- Transportation: Procurement of Hookloaders, Movable Compactors with Tip Cart and Container.
- Disposal: Composting materials recovery facilities and RDF facilities (on PPP basis)
- Land available 100 hector, owner is KMC.
- The Gol contribution is 35% of the Project Cost i.e. Rs. 53.49 Crore and State Share is Rs. 17.83 Crore.
   Remaining amount Rs. 81.51 Crore to be borne by KMC.
- 2. Approval of DPR of Rs. 34.40 Crore in Asansol Municipal Corporation on MSWM prepared by MoUD, Gol

The Salient features of Phase-I with total cost involvement of Rs. 34.40 Crore are:

- Primary Collection
- Secondary Operation
- Waste Transfer Stations
- Service Station for Collection Tools, Vehicles, Repair etc.
- Land required 32.70 acre, available 70 acre, owner is ULB
- Out of the anticipated cost of Rs. 34.40 Crore, Rs. 0.72 Crore will be available from MP LAD fund and 35% (Rs. 11.79 Crore) from GoI share. The remaining amount Rs. 21.90 Crore has been proposed to be obtained from HUDCO as loan.

In the Phase-II of the Project (not included in the present DPR and to be taken up later), Scientific Processing & Disposal of MSW including composting, RDF based Processing with zero waste to land fill have been proposed with a total capital cost of Rs. 36.93 Crore (Central Share Rs. 12.93 Crore and PPP Contribution Rs. 24.00 Crore)

3. A DPR (Waste to Compost & Energy) of four ULBs (in Cluster Mode) namely Dum Dum, North Dum Dum, South Dum Dum and Baranagar Municipalities with a total project cost of Rs.55.73 Crore prepared by MED and appraised by Institute of Public Health Engineer (IPHE), India.

The Salient features of Phase-I of the Project:

- Primary Collection
- Secondary Operation
- Segregation & Sorting
- Bio-gas generation through Bio-methanation (50 MT)
- Composting through Windrow method (50 MT)
- Capping of existing land fill (5 Acres)
- Land required 7.44 acre, available 21.73 acre, owner is Baranagar Municipality
- Out of the anticipated cost of Rs. 55.73 Crore, 35% (Rs. 19.51 Crore) from Gol share and 6.5 Crore from state share and remaining amount Rs. 29.72 Crore needs to be arranged from other sources.



Capping & Processing of rest part and further improvement of infrastructure will be taken up in Phase-II.

4. A DPR (Waste to Energy) of Two ULBs (in Cluster Mode) namely Habra and Ashoknagar-Kalyangarh Municipalities with a total project cost of Rs. 32.32 Crore prepared by two ULBs and appraised by MED.

#### The Salient features of the Project:

- Primary Collection
- Secondary Operation
- Segregation & Sorting
- Bio-gas generation through Bio-methanation
- Development of Land fill site
- Land required 7.10 acre, available 15.92 acre, owner is Ashoknagar Kalyangarh Municipality
- Out of the anticipated cost of Rs. 32.32 Crore, Rs. 11.31 Crore (35%) from GoI share and 3.77 Crore from state share and remaining amount Rs. 17.24 Crore needs to be arranged from other sources.
- A DPR (Waste to Energy) of Jalpaiguri Municipality with a total project cost of Rs. 12.88 Crore prepared by the ULB and appraised by MED.

#### The Salient features of the Project:

- Primary Collection
- Secondary Operation
- Segregation & Sorting
- Bio-gas generation through Bio-methanation
- · Development of Land fill site
- Land required 1.90 acre, available 4.63 acre, owner is ULB
- Out of the anticipated cost of Rs. 12.88 Crore, Rs. 4.51 Crore (35%) from GoI share and 1.50 Crore from state share and remaining amount Rs. 6.87 Crore needs to be arranged from other sources.
- A DPR of Krishnanagar Municipality with a total project cost of Rs. 18.33 Crore prepared by the ULB and appraised by MED.

#### The Salient features of the Project:

- · Primary Collection
- Secondary Operation
- Segregation & Sorting
- Bio-gas generation through Bio-methanation
- Development of Land fill site
- Land required 2.70 acre, available 3.60 acre, owner is ULB
- Out of the anticipated cost of Rs. 18.33 Crore, Rs. 6.42 Crore (35%) from GoI share and 2.14 Crore from state share and remaining amount Rs. 9.77 Crore needs to be arranged from other sources.
- A DPR of Santipur Municipality with a total project cost of Rs. 18.19 Crore prepared by the ULB and appraised by MED.

#### The Salient features of the Project:

- Primary Collection
- Secondary Operation
- Segregation & Sorting

- Bio-gas generation through Bio-methanation
- Development of Land fill site
- Land required 2.60 acre, available 6.73 acre, owner is ULB
- Out of the anticipated cost of Rs. 18.19 Crore, Rs. 6.37 Crore (35%) from GoI share and 2.12 Crore from state share and remaining amount Rs. 9.7 Crore needs to be arranged from other sources.
- 8. A DPR of Nabadwip Municipality with a total project cost of Rs. 14.98 Crore prepared by the ULB and appraised by MED.

The Salient features of the Project:

- Primary Collection
- Secondary Operation
- · Segregation & Sorting
- Bio-gas generation through Bio-methanation
- · Development of Land fill site
- Land required 2.70 acre, available 5.53 acre, owner is ULB
- Out of the anticipated cost of Rs. 14.98 Crore, Rs. 5.24 Crore (35%) from GoI share and 1.75 Crore from state share and remaining amount Rs. 7.99 Crore needs to be arranged from other sources.
- A DPR of Bhatpara Municipality with a total project cost of Rs. 41.82 Crore prepared by the ULB/Agency and appraised by KMDA.

The Salient features of the Project:

- Primary Collection
- Secondary Operation
- · Composting through Windrow method
- Sanitary Land Fill
- Land required 5.58 acre, available 10.50 acre, owner is ULB
- Out of the anticipated cost of Rs. 41.82 Crore, Rs. 14.64 Crore (35%) from GoI share and 4.88 Crore from state share and remaining amount Rs. 22.30 Crore needs to be arranged from other sources.
- A DPR of Naihati Municipality with a total project cost of Rs. 40.21 Crore prepared by the ULB/Agency and appraised by KMDA.

The Salient features of the Project:

- Primary Collection
- Secondary Operation
- Composting through Windrow method
- Sanitary Land Fill
- Land required 6.67 acre, available 9.94 acre, Owner is ULB.
- Out of the anticipated cost of Rs. 40.21 Crore, Rs. 14.07 Crore (35%) from GoI share and 4.69 Crore from state share and remaining amount Rs. 22.45 Crore needs to be arranged from other sources.





### Agenda Item No.-2

### Approval of Annual Action Plan for 2016-17 & Claim of Fund from Gol

SI No.	Components	Action Plan Estimated Project Cost		Total Central Share (Rs. in Crore)
1	IHHL	Construction of 120000 Unit	Rs.131.88 Crore (@10990/-)	
2	СТ	Construction of 2000 Seats	Rs. 19.60 Crore (@98000/- per seat)	7.84
		Construction of 1000 Toilet Seats	Rs. 9.80 Crore (@98000/- per seat)	3.92
3 PT		Construction of 1000 Urinal Seats	Rs. 3.2 Crore (@32000/- per seat)	1.28
4	SWM	Coverage of 80 Lakh population in Projects of prioritised 10 cities	Rs. 960 Crore (@1200/- per capita)	336.00
5	IEC	Miscellaneous IEC activities in State, District, ULBs	Action Plan of Rs. 24 Crore has already been submitted to MoUD vide Memo no. SUDA- 37/2015/938 dated 17.05.2016	18.00
6	CB & A&OE	Miscellaneous CB activities and A&OE Expenses	Action Plan of Rs. 13 Crore has already been submitted to MoUD vide Memo no. SUDA- 37/2015/938 dated 17.05.2016	9.75
		TOTAL		424.79

Approval of Fund to be claimed from Government of India as Central Share in the Year 2016-17 under Swachh Bharat Mission (Urban) is Rs. 329.93 Crore, detailed placed below:

Rs. in Crore

CI	,		SWM	IHHL	СТ	PT	PT -	IEC	CB &	Total
SI No	Financial Year	Installment	Amount	Amount	Amount	Amount	Urinal Amount	Amount	A&OE Amount	Amount
1	2014-15	2nd	34.54	21.12	0	0	0	6.68	1.67	64.01
2	2015-16	2nd	0	53.52	0	0	0	0	0	53.52
3	2016-17	1st	168	24	3.92	1.96	0.64	9	4.88	212.4
	TOT	AL	202.54	98.64	3.92	1.96	0.64	15.68	6.55	329.93

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### Agenda Item No.-3

### **IEC and Capacity Building**

### Information Education & Communication (IEC):

1. Approval of Action Plan for IEC (Rs. 24 Crore) for the year 2016-17 since submitted to Government of India.

Sl. No.	Items & Particulars	Amount (Rs. in lakhs
	Advertisements through Mass Media	
1.	Radio Spots (AIR + FM + Available Community Radio Stations) including Sponsored Programmes on different components of SBM for both AIR/FM and Community Radios	300.00
	Advertisements through Print Media	
2.	Stickers/Flexes (Bus Panels, Bus Tickets, Seats), (Autos/Cycle Rickshaw Panels)	170.50
3.	Printing of Logo and Messages on:  - Notebook (Circulated for CB & T) Front and Back Cover Pages  - Inside and back cover pages of free textbooks and notebooks	350.00
4.	Leaflets, Pamphlets, Posters, Booklets etc.	120.00
5.	Temporary Hoardings/Bill Boards	145.00
6.	Wall Paintings	75.00
	Awareness Camps & Traditional Media	
7.	Folk Media & Fairs	300.00
8.	Social Media	20.00
	Narrow Cast	
9.	Short Films for showing in local cable channels/tagged with folk media screening	75.00
10.	Production of audio CDs, audio-visual CDs, Documentary/ Docu- Drama/ Docu-Feature Films on innovations and best practices for awareness generation	100.00
Jeby III	Interpersonal Communication & Campaigns	
11.	Other activities under IEC, viz. Senior Citizen's Programme, Quiz Programme in Schools & Colleges, Road Shows & Tableau, School Children Awareness Programmes and Theme Based Cleanliness Drive	149.50
12.	Campaigns by SHGs and Federations	265.00
13.	Celebration of National & International Days such as Environment Day (5 <sup>th</sup> June), Hand Washing Day (15 <sup>th</sup> October), World Toilet Day (19 <sup>th</sup> November)	75.00
	Development of Website and Formation of Monitoring Syste	ms
14.	Development of Website for the Programme Sub-Components and also for MIS, M&E (with ULB login) (This includes O&M of [Infrastructure & Maintenance])	5.00



Sl. No.	Items & Particulars	Amount (Rs. in lakhs)
15.	Establishment of Monitoring Systems/Committee at the ULB levels:  1. For evolving local mechanisms to ensure that there is no open defecation, people are using toilets, cleanliness drives initiated by schools and colleges and Anganwadi centres etc.  2. For updating data, audio-video clips, photographs	250.00
	Grand Total	2400.00

### **Capacity Building:**

2. Approval of Action Plan for Capacity Building (Rs. 13 Crore) for the year 2016-17 since submitted to Government of India.

Sl. No.	Items & Particulars	Amount (Rs. In lakhs)
	Capacity Building	
4.	Capacity Building and Training Programmes for various stakeholders on Swachh Bharat Mission	300.00
2.	Workshops on Thematic Issues for various stakeholders	300.00
3.	Capacity Building and Training Programmes on IEC	400.00
4.	Exposure Visits to better performing ULBs both at the Districts, State and inter-state levels that have demonstrated innovative models of sanitation and best practices like innovative School sanitation models, Solid and Liquid Waste Management(SLWM) projects managed by women SHGs, eco-friendly toilet construction sites etc.	300.00
	Grand Total	1300.00

### Agenda Item No.-4

Miscellaneous Issues

Any other issue will be raised.

# Minutes of the 1<sup>st</sup> Meeting of State High Powered Committee under Mission Nirmal Bangla (Urban)/Swachh Bharat Mission (Urban)

Date: 5<sup>th</sup> January 2017

Time: 11.30 AM

Venue: Conference Hall of the Chief Secretary at Nabanna

List of the Members and other Participants Present: Placed at Annexure-VI

The Chief Secretary to Government of West Bengal and the Chairman of the State High Powered Committee under Mission Nirmal Bangla (Urban)/Swachh Bharat Mission (Urban) chaired the meeting.

At the outset, the Secretary, Urban Development & Municipal Affairs Department, Government of West Bengal welcome all the members of the Committee and explained the overall plan and activities under Mission Nirmal Bangla (Urban). He made a detailed presentation on the agendas of the meeting.

Detailed discussion took place on the Concept, Plan and Process of the proposed Solid Waste Management Projects, Action Plan of all Components for the year 2016-17 including IEC & Capacity Building Plans, Claim of fund from Government of India in the year 2016-17 and Miscellaneous issues.

Salient features of discussions and decisions taken:

### Solid Waste Management:

- 1. DPRs of following 10 Solid Waste Management Projects of 14 ULBs of West Bengal have been placed before the Committee for consideration. The SWM Projects are technically appraised by Reputed Institutes/Technical Wings of the Government and approved by the concerned ULBs. Lands are available with the ULBs in each case. After detailed deliberation, the Committee has approved the DPRs of following SWM Projects:
  - a) DPR of four ULBs (in Cluster Mode) namely Dum Dum, North Dum Dum, South Dum Dum and Baranagar Municipalities.
  - b) DPR of two ULBs (in Cluster Mode) namely Habra and Ashoknagar-Kalyangarh Municipalities.
  - c) DPR of Jalpaiguri Municipality.
  - d) DPR of Krishnanagar Municipality.
  - e) DPR of Santipur Municipality.
  - f) DPR of Nabadwip Municipality.
  - g) DPR of Bhatpara Municipality.
  - h) DPR of Naihati Municipality.
  - i) DPR of Kolkata MC
  - j) DPR (Phase-I) of Asansol Municipal Corporation.

Details of the Projects are placed at Annexure-I

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2. It was decided that beyond the Government of India share i.e. 35% or as admissible of the Project Cost, the remaining will be borne by the State Government and ULB. This fund sharing pattern is approved in principle and UD & MA Department will finally obtain approval from Finance Department.

### IEC/Interpersonal Behavioural Change Communication:

3. It was discussed that the major challenge of the Solid Waste Management Projects is awareness generation through Interpersonal Behavioural Change Communication. For this, it was decided that a Combined Interpersonal Behavioural Change Communication Process will be developed by UD & MA Department and P&RD Department jointly utilizing the support of UNICEF. In this regard, support of the Department of Information & Cultural Affairs will be very much essential.

### Annual Action Plan for the Year 2016-17:

4. The Committee has approved the Information, Education & Communication (IEC) Action Plan of Rs. 24 Crore for the year 2016-17, which has already been submitted to Government of India.

Details of the IEC Action Plan is placed at Annexure-II

5. The Committee has approved the Capacity Building Action Plan of Rs. 13 Crore for the year 2016-17, which has already been submitted to Government of India.

Details of the Capacity Building Action Plan is placed at Annexure-III

The Committee has approved the Annual Action Plan of all Components for the year 2016-17
amounting to total GoI Share of Rs. 424.79 Crore, which has already been submitted to
Government of India.

Details of the Annual Action Plan of all Components is placed at Annexure-IV

### Claim of Fund from GoI in the Year 2016-17:

7. The Committee has approved the Claim of Fund amounting to Rs. 329.93 Crore from Government of India in the year 2016-17, which has already been submitted to Government of India.

Details of the Claim of Fund from Government of India is placed at Annexure-V

#### Miscellaneous:

8. It was discussed that a data base on existence of Open Drains in the ULBs should be developed and it was decided that a low cost scheme will be designed for covering those open drains in Urban Areas. In this regard, UD & MA Department will take necessary action.



9. It has been observed that the market areas & its nearby drains of urban areas remain very much dirty due to accumulation of wastes. For this, it was decided to prepare a plan for Cleanliness and Waste Management including drainage system in the markets of Urban Areas. Taking these aspects into account a new model of market may be designed and Kolkata MC will implement a pilot project in this respect. In this regard, UD & MA Department will take necessary action.

Meeting ended with thanks to and from the chair.

(Basudeb Banerjee)

Chief Secretary to Government of West Bengal & Chairman, SHPC, MNB (U)

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### Annexure-I

### Details of the SWM Projects approved by SHPC

- a) A DPR (Phase-I) of four ULBs (in Cluster Mode) namely Dum Dum, North Dum Dum, South Dum Dum and Baranagar Municipalities with a total project cost of Rs.55.73 Crore prepared by MED and appraised by Institute of Public Health Engineer (IPHE), India.
- b) A DPR of Two ULBs (in Cluster Mode) namely Habra and Ashoknagar-Kalyangarh Municipalities with a total project cost of Rs. 32.32 Crore prepared by two ULBs and appraised by Municipal Engineering Directorate (MED).
- A DPR of Jalpaiguri Municipality with a total project cost of Rs. 12.88 Crore prepared by the ULB and appraised by MED.
- d) A DPR of Krishnanagar Municipality with a total project cost of Rs. 18.33 Crore prepared by the ULB and appraised by MED.
- e) A DPR of Santipur Municipality with a total project cost of Rs. 18.19 Crore prepared by the ULB and appraised by MED.
- f) A DPR of Nabadwip Municipality with a total project cost of Rs. 14.98 Crore prepared by the ULB and appraised by MED.
- g) A DPR of Bhatpara Municipality with a total project cost of Rs. 41.82 Crore prepared by the ULB/Agency and appraised by Kolkata Metropolitan Development Authority (KMDA).
- h) A DPR of Naihati Municipality with a total project cost of Rs. 40.21 Crore prepared by the ULB/Agency and appraised by KMDA.
- A DPR of Rs. 152.83 Crore of Integrated Solid Waste Management of Kolkata MC prepared by Kolkata MC and already appraised by CPHEEO.
- j) A DPR (Phase-I) of Rs. 34.40 Crore in Asansol Municipal Corporation on MSWM prepared by MoUD, GoI has been received. The Ministry vide D.O. No. JS-MD/MoUD/SBM/OS-2016/34 dated 27.10.2016 informed that as MoUD has prepared this DPR, so no Third Party Evaluation/Appraisal is required for this DPR.

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### Annexure-II

### Details of the IEC Action Plan for 2016-17 approved by SHPC

Sl. No.	Items & Particulars	Amount (Rs. in lakhs)
	Advertisements through Mass Media	
1.	Radio Spots (AIR + FM + Available Community Radio Stations) including Sponsored Programmes on different components of SBM for both AIR/FM and Community Radios	300.00
A CONTRACTOR	Advertisements through Print Media	
2.	Stickers/Flexes (Bus Panels, Bus Tickets, Seats), (Autos/Cycle Rickshaw Panels)	170.50
3.	Printing of Logo and Messages on:  - Notebook (Circulated for CB & T) Front and Back Cover Pages  - Inside and back cover pages of free textbooks and notebooks	350.00
4.	Leaflets, Pamphlets, Posters, Booklets etc.	120.00
5.	Temporary Hoardings/Bill Boards	145.00
6.	Wall Paintings	75.00
	Awareness Camps & Traditional Media	The same of the sa
7.	Folk Media & Fairs	300.00
8.	Social Media	20.00
	Narrow Cast	
9.	Short Films for showing in local cable channels/tagged with folk media screening	75.00
10.	Production of audio CDs, audio-visual CDs, Documentary/ Docu-Drama/ Docu-Feature Films on innovations and best practices for awareness generation	100.00
Mark I	Interpersonal Communication & Campaigns	<b>高级数件的</b>
11.	Other activities under IEC, viz. Senior Citizen's Programme, Quiz Programme in Schools & Colleges, Road Shows & Tableau, School Children Awareness Programmes and Theme Based Cleanliness Drive	149.50
12.	Campaigns by SHGs and Federations	265.00
13.	Celebration of National & International Days such as Environment Day (5 <sup>th</sup> June), Hand Washing Day (15 <sup>th</sup> October), World Toilet Day (19 <sup>th</sup> November)	75.00
根据企业	Development of Website and Formation of Monitoring Syste	ms
14.	Development of Website for the Programme Sub-Components and also for MIS, M&E (with ULB login) (This includes O&M of [Infrastructure & Maintenance])	5.00
15.	Establishment of Monitoring Systems/Committee at the ULB levels:  1. For evolving local mechanisms to ensure that there is no open defecation, people are using toilets, cleanliness drives initiated by schools and colleges and Anganwadi centres etc.  2. For updating data, audio-video clips, photographs	250.00
	Grand Total	2400.00



### Annexure-III

### Details of the Capacity Building Action Plan for 2016-17 approved by SHPC

Sl. No.	Items & Particulars	Amount (Rs. In lakhs)
	Capacity Building	
1.	Capacity Building and Training Programmes for various stakeholders on Swachh Bharat Mission	300.00
2.	Workshops on Thematic Issues for various stakeholders	300.00
3.	Capacity Building and Training Programmes on IEC	400.00
4.	Exposure Visits to better performing ULBs both at the Districts, State and inter-state levels that have demonstrated innovative models of sanitation and best practices like innovative School sanitation models, Solid and Liquid Waste Management(SLWM) projects managed by women SHGs, eco-friendly toilet construction sites etc.	300.00
	Grand Total	1300.00



### Annexure-IV

## Details of the Annual Action Plan of all Components for 2016-17 approved by SHPC

Sl No.	Components	Action Plan	Estimated Project Cost	Total Central Share (Rs. in Crore)
1	Individual Household Latrine	Construction of 120000 Unit	on of 120000 Unit Rs.131.88 Crore (@10990/-)	
2	Community Toilet	Construction of 2000 Seats	Rs. 19.60 Crore (@98000/- per seat)	7.84
3	Public Toilet	Construction of 1000 Toilet Seats	Rs. 9.80 Crore (@98000/- per seat)	3.92
3	Public Tollet	Construction of 1000 Urinal Seats	Rs. 3.2 Crore (@32000/- per seat)	1.28
4	Solid Waste Management	Coverage of 80 Lakh population in Projects of prioritised 10 cities	Rs. 960 Crore (@1200/- per capita)	336.00
5	IEC  Miscellaneous IEC activities in State, District, ULBs  24 Crore has already been submitted to MoUD vide in no. SUDA-37/2015/938 of mo. SUDA-37/20		submitted to MoUD vide Memo	18.00
O BOT ANTEL		Miscellaneous CB activities and A&OE Expenses	Action Plan of Rs. 13 Crore has already been submitted to	
	Т	OTAL		424.79

Note: The priority of IHHL component implementation is being set as per District-wise priority of Panchayat & Rural Development Department, Government of West Bengal



### Annexure-V

## Details of Claim of Fund from Government of India in the year 2016-17 approved by SHPC

Rs. in Crore

Sl No	Financial Year	Installment	SWM Amount	IHHL Amount	CT Amount	PT Amount	PT - Urinal Amount	IEC Amount	CB & A&OE Amount	Total Amount
1	2014-15	2nd	34.54	21.12	0	0	0	6.68	1.67	64.01
2	2015-16	2nd	0	53.52	0	0	0	0	0	53.52
3	2016-17	lst	168	24	3.92	1.96	0.64	9	4.88	212.4
	TOTA	AL	202.54	98.64	3.92	1.96	0.64	15.68	6.55	329.93



#### Annexure-VI

### List of Members and Other Participants Present

- 1. Sri Basudeb Banerje, IAS, Chief Secretary, GoWB
- 2. Sri Arnab Roy, IAS, Principal Secretary, Environment Department
- 3. Sri A. Bhattacharya, IAS, Principal Secretary, I & C.A Department
- 4. Sri Onkar Singh Meena, IAS, Secretary, UD & MA Department
- 5. Sri Khalil Ahemed, IAS, Municipal Commissioner, Kolkata MC.
- 6. Sri D. Nariala, IAS, Secretary, School Education Department
- 7. Sri A. Bhattacharyya, IAS, Commissioner, H & FW Department
- 8. Sri N. G. Hira, IAS, Commissioner, CD, WD & SW Department
- 9. Sri Dibyendu Sarkar, IAS, Commissioner, P & RD Department
- 10. Sri Sudipta Chatterjee, IAS, S.P.D., PBSSM, School Education Department
- 11. Sri Anil Kumar, Under Secretary, Ministry of Urban Development, Gol
- 12. Sri Bikash Ranjan Podder, Chief Engineer, Public Health Engineering Department
- 13. Sri Sunit Ranjan Sikdar, D.L.B., UD & MA Department
- 14. Sri Amit Das, Chief Engineer, MED, UD & MA Department
- 15. Sri Debkumar Chakraborti, Senior Consultant (WASH), UNICEF
- 16. Dr. Kaninika Mitra, Health Specialist, UNICEF
- 17. Smt Meital Rusdia, Chief Field Office, UNICEF
- 18. Sri Sutanu Kar, IAS, Additional Secretary, UD & MA Department
- 19. Sri Upendra Nath Sarkar, Special Secretary & Director, SUDA, UD & MA Department
- 20. Sri B. N. Kar, Additional Director, ILGUS, UD & MA Department
- 21. Sri Santanu Mukherjee, Joint Secretary, UD & MA Department
- 22. Sri R. M. Chatterjee, D.G.O., KMDA, UD & MA Department
- 23. Dr. Sujay Mitra, Poverty Monitoring Expert, CMU, UD & MA Department
- 24. Sri Subhasish Chattopadhyay, D.G.(SWM), Kolkata MC
- 25. Sri Saumya Bandyopadhyay, Assistant Engineer, M.E.D, UD & MA Department
- 26. Sri Sudhin Kar, C.M., SLB, Lbd, United Bank of India, H.O.

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Government of West Bengal

Panchayats & Rural Development Department Joint Administrative Building, (6th to 9th Floors)

Salt Lake, Block- HC-7, Sector-III, Kolkata-700106

No.:3681-RD/PH&S/S/IC-1/2015

Date:-09.08.2016

1 1 AUG 2016

#### ORDER

In partial modification of earlier Order No 4654/RD/PH&S/S/1C-1/2015 dated 29.09.2015 the Apex committee under Mission Nirmal Bangla is now constituted with inclusion of the following member to aid an advice the State Missign in implementation of the programme.

Apex committee under Mission Nirmal Bangla.

- 1. The Chief Secretary, West Bengal,- Chairperson.
- 2. The ACS/Principal Secretary/Secretary, Finance Department-Member
- 3. The ACS/Principal Secretary/Secretary, Health & Family Welfare Department-Member
- 4. The ACS/Principal Secretary/Secretary, Women & Social Welfare and Child Development Department-Member
- 5. The ACS/Principal Secretary/Secretary, School Education Department-Member
- 6. The ACS/Principal Secretary/Secretary, Panchayats & Rural Development Department-Member
- 7. The ACS/Principal Secretary/Secretary, Public Health Engineering Department-Member
- 8. The ACS/Principal Secretary/Secretary Municipal Affairs Department Member
- 9. The ACS/Principal Secretary/Secretary Department of Environment-Member.
- 10. The ACS/Principal Secretary/Secretary, Urban Development Department-Member
- 11. The ACS/Principal Secretary/Secretary, Information & Cultural Affairs Department -Member
- 12. The ACS/Principal Secretary/Secretary, Backward Classes Welfare Department-Member
- 13. The Commissioner, Kolkata Municipal Corporation-Member.
- 14. Representative of Ministry of Drinking Water & Sanitation , Government of India-Member
- 15. Representative of Ministry of Urban Development Department, Government of India -Member
- 16. The SPD, PBSSM-Member.
- 17. The Director, ICDS-Member
- 18. The Director, SUDA-Member
- 19. Representative from UNICEF, West Bengal
- 20. The Mission Director, Mission Nirmal Bangla, Panchayats & Rural Development Department -Convener- Member

This order issues with approval of the Chief Secretary to the Government of West Bengal

Sd/-

(Saurabh Kumar Das) Principal Secretary

Contd...

No.: 3681/1(20)- RD/PH&S/S/1C-1/2015

Dite:09.08.2016

Copy forwarded for information and necessary action to:

- 1. The ACS/Principal Secretary/Secretary, Finance Department,
- 2. The ACS/Principal Secretary/Secretary, Health & Family Welfare Department.
- 3. The ACS/Principal Secretary/Secretary, Women & Social Welfare and Child Development Department.
- 4. The ACS/Principal Secretary/Secretary, School Education Department,
- 5. The ACS/Principal Secretary/Secretary, Panchayats & Rural Development Department.
- 6. The ACS/Principal Secretary/Secretary, Public Health Engineering Department.
- 7. The ACS/Principal Secretary/Secretary Municipal Affairs Department.
- 8. The ACS/Principal Secretary/Secretary Department of Environment.
- 9. The ACS/Principal Secretary/Secretary, Urban Development Department.
- 10. The ACS/Principal Secretary/Secretary, Information & Cultural Affairs Department.
- 11. The ACS/Principal Secretary/Secretary, Backward Classes Welfare Department
- 12. The Commissioner, Kolkata Municipal Corporation..
- 13. Representative of Ministry of Drinking Water & Sanitation, Government of India.
- 14. Representative of Ministry of Urban Development Department Government of India.
- 15. The SPD, PBSSM
- 16. The Director, ICDS.
- 17. The Director, SUDA.
  - 18. Representative from UNICEF, West Bengal
  - 19. The Mission Director, Mission Nirmal Bangla, Panchayats & Rural Development Department, Government of West Bengal
  - 20. The Senior P.A to the Chief Secretary for kind information of the Chief Secretary

Commissioner in the P&R.D.Department

No. 20/1/2016-SBM-I Government of India Ministry of Urban Development

18th July 2016

#### OFFICE MEMORANDUM

Sub: Revisions/ Modifications of the operational guidelines of Swachh Bharat Mission (Urban)

This is to notify that the following changes have been made to the guidelines with respect to Swachh Bharat Mission (Urban):

- 1. State High Powered Committees (SHPCs) are given the flexibility to redetermine targets for IHHLs and CTs, subject to overall state-wise funds envelope (sum of allocation under IHHL and CTs, for the entire mission period) remaining unchanged.
- 2. Increase in base unit cost of CTs to Rs 98,000 per seat, wherein VGF/Grant will be upto 40% of project cost (i.e. VGF/Grant of Rs 39,200 per seat). This will be subject to overall state-wise funds envelope (sum of allocation under IHHL and CTs, for the entire mission period) remaining unchanged. This marks a shift from monitoring of toilet construction to monitoring of ODF status achievement.
- 3. Extension of VGF/Grant of upto 40% as available for CTs to Public Toilet projects as well (i.e. VGF/Grant of Rs 39,200 per seat). Unit cost of PTs to be same as CTs. Targets for PT to be set under CT component. This will be subject to overall state-wise funds envelope (sum of allocation under IHHL and CTs, for the entire mission period) remaining unchanged
- 4. Inclusion of urinals in ODF component, wherein VGF/grant of upto 40% to be given on lines of CTs/PTs, and base cost of urinals to be Rs. 32,000 per unit (i.e. VGF/Grant of Rs 12,800 per unit). Targets for urinals to be set under CT component. This will be subject to overall state-wise funds envelope (sum of allocation under IHHL and CTs, for the entire mission period) remaining unchanged.
- 5. The central assistance for Municipal Solid Waste Management component be raised from present 20 percent to 35 percent. This will be subject to overall state-wise funds envelope, for the entire mission period, for SWM remaining unchanged.

This issues with the approval of competent authority.

Vive dra (V.K. Kushwaha 7.7.16

Under Secretary to the Government of India

Tel: 23062654

To:

1) Chief Secretaries of all States/ Union Territories

2) Principal Secretaries/ Secretaries of Urban Development of all States/ Union Territories

3) Mission Directors (SBM) of all States/ Union Territories

Copy for information to: (i) PSO to Secretary (UD) (Ii) JS&FA, MoUD (III) JS (SBM) (iv) Director (SBM-I)/DS (SBM-II)



### **Government of India**



### Guidelines for

### **Swachh Bharat Mission (SBM)**



December 2014





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#### 1. Introduction

- 1.1. According to Census 2011, India's urban population is 377 million or 31% of the total population. These numbers are expected to increase to 600 million by 2031. The Census 2011 also showed that in 4,041 statutory towns, close to eight million households do not have access to toilets and defecate in the open (7.90 million). Weak sanitation has significant health costs and untreated sewage from cities is the single biggest source of water resource pollution in India. This indicates both the scale of the challenge ahead of the Indian cities and the huge costs incurred from not addressing them.
- 1.2. 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" will be launched. This will be our tribute to Mahatma Gandhi on his 150<sup>th</sup> birth anniversary to be celebrated in the year 2019"

SBM is being implemented by the Ministry of Urban Development (M/o UD) and by the Ministry of Drinking Water and Sanitation (M/o DWS) for urban and rural areas respectively. These guidelines are for the implementation of Swachh Bharat Mission (Urban).

### 2. Swachh Bharat Mission (SBM) Urban Overview

### 2.1. Mission Objectives

- 2.1.1. Elimination of open defecation
- 2.1.2. Eradication of Manual Scavenging
- 2.1.3. Modern and Scientific Municipal Solid Waste Management
- 2.1.4. To effect behavioral change regarding healthy sanitation practices
- 2.1.5. Generate awareness about sanitation and its linkage with public health
- 2.1.6. Capacity Augmentation for ULB's
- 2.1.7. To create an enabling environment for private sector participation in Capex (capital expenditure) and Opex (operation and maintenance)





#### 2.2. Duration of the mission

The Mission will be in force till 2<sup>nd</sup> October 2019

#### 2.3. Mission components

The Mission has the following components:

- 2.3.1. Household toilets, including conversion of insanitary latrines into pour-flush latrines;
- 2.3.2. Community toilets
- 2.3.3. Public toilets
- 2.3.4. Solid waste management
- 2.3.5. IEC & Public Awareness
- 2.3.6. Capacity building and Administrative & Office Expenses (A&OE)
  - **By Public Toilets**, it is implied that these are to be provided for the floating population / general public in places such as markets, train stations, tourist places, near office complexes, or other public areas where there are considerable number of people passing by.
  - By Community toilets, it is implied that a shared facility provided by and for a group of residents or an entire settlement. Community toilet blocks are used primarily in low-income and/or informal settlements / slums, where space and/or land are constraints in providing a household toilet. These are for a more or less fixed user group.

### 2.4. Mission Coverage: Cities and target population

2.4.1. All Statutory towns will be covered under the Mission. Definition of statutory towns is at *Annexure I*.

### 2.5. Mission Strategy

- 2.5.1. Comprehensive Sanitation Planning, which includes
- (a) City Level Sanitation Plans
- (b) State Sanitation Concept As per Annexure IV
- (c) Sate Sanitation Strategy
- 2.5.2. Behavioral Change Strategy and IEC
- 2.5.3. Enabling Environment for Private sector participation
- 2.5.4. Capacity Building



- All manual scavengers in urban areas are identified, insanitary toilets linked to their employment are upgraded to sanitary toilets, and that the manual scavengers are adequately rehabilitated.
- ii. In their efforts to streamline and formalize SWM systems it shall be the endeavor of ULBs that the informal sector workers in waste management (rag pickers) are given priority to upgrade their work conditions and are enumerated and integrated into the formal system of SWM in cities.
- iii. All temporary accommodation for migrants and the homeless in urban areas have adequate provision for toilets either on the premises or linked to a public / community toilet.
- iv. Mandating that construction labour in urban areas have access to temporary toilets at all sites in urban areas, buildings, parks and roads where construction / maintenance work is taking place or where construction labour is temporarily housed.
- v. Priority shall be accorded pro-actively to cover households with vulnerable sections such as pensioners, girl children, pregnant and lactating mothers.

### 2.6. Mission Outlay

The estimated cost of implementation of SBM (Urban) based on unit and per capita costs for its various components is Rs. 62,009 Crore. The Government of India share as per approved funding pattern amounts to Rs. 14,623 Crore. In addition, a minimum additional amount equivalent to 25% of Gol funding, amounting to Rs. 4,874 Crore shall be contributed by the States as State/ULB share. The balance funds is proposed to be generated through various other sources of fund which are, but not limited to:

- a. Private Sector Participation
- b. Additional Resources from State Government/ULB
- c. Beneficiary Share
- d. User Charges
- e. Land Leveraging
- f. Innovative revenue streams
- g. Swachh Bharat Kosh
- h. Corporate Social Responsibility
- i. Market Borrowing
- j. External Assistance

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### 3. Concept Sanitation Strategy:

It is understood that without a proper **city sanitation plan** and resulting **state sanitation strategy**, as indicated in National Urban sanitation policy-2008, comprehensive planning cannot be achieved to attain the objectives of Swachh Bharat Mission. However, both the activities require time and wide consultation at various levels including citizen engagements. It is also understood that although many states and cities have prepared these plans and strategy, many more have not done so.

In order to give a quick start to the Swachh Bharat Mission, it is, therefore proposed that all states may submit a **brief concept Note on state sanitation strategy**, as given in the **AnnexurelV** of these guidelines as a part of there initial proposal, in order to claim their first installment for individual household toilets, IEC and Capacity Building as well as the revolving fund for other components.

The concept note and proposal shall be submitted online to MoUD by state governments by 30 January 2015.

The states should however, simultaneously start preparing City sanitation plans for each city and State Sanitation strategy as per National Urban sanitation Policy 2008 as these will be required before any further release can be made to the states.

### 4. SBM (Urban) Component -I: Household toilets

- 4.1. SBM (Urban) aims to ensure that
  - a) No households engage in the practice of open defecation,
  - No new insanitary toilets are constructed during the mission period and
  - c) Pit latrines are converted to sanitary latrines.

The Target Group for construction of household units of Toilets, thus, is:

- (i) 80% of urban households engaging in open defecation
- (ii) All households with insanitary latrines
- (iii) All households with single-pit latrines

These will be targeted under this component for the construction of household toilets or individual household latrines during the mission period. The remaining 20% of households practicing open defecation are assumed to be catered by community toilets due to constraints of space.

4.2. **Household toilets** constructed under SBM (Urban) will have two main structures – the toilet *superstructure* (including the pan and water closet), and the

substructure (either an on-site treatment system, or a connection to existing underground sewerage system).

- 4.2.1. Whenever a sewerage system is available within 30 metres from the proposed household toilet, only the toilet superstructure may be constructed and connected to the existing sewerage system. ULBs must facilitate these connections for household toilets under SBM (Urban), wherever applicable and economical.
- 4.2.2. In the event that a sewerage system is not available within 30 meters from the proposed household toilet, in addition to the construction of the toilet superstructure, an on-site treatment system (such as twin pits, septic tanks, bio-digesters, or bio-tanks) should also be constructed for the collection, treatment and/or disposal off sewage at, or near the point of generation.
- 4.2.3. ULBs should ensure that all household toilets being constructed under SBM are built in tandem with water supply arrangements in ULBs. Beneficiary households will be responsible for the operation and maintenance of the household toilets. Suggested technical specifications, technologies and tentative cost of household toilets are available at **Annexure II**
- 4.3. For this component, **beneficiary** shall mean any household that does not have access to an individual household toilet or has an insanitary toilet (dry/ bahou and single pit latrine). No other criteria is to be applied.
- 4.3.1. Selection of Beneficiary Household shall be as per the strategy adopted by ULB under the guidance of state government. However, the following guiding principals may be followed:
- (i) Initially, a campaign to create awareness may motivate beneficiaries to come forward on their own. This should be taken at the ULB level and followed up by accepting a simple application and undertaking, to be verified within 7 days and approved at ULB level.
- (ii) ULBs are expected to carry out a house-to-house survey. In so doing they shall also take into consideration Census 2011 data or any recent survey available to them. This baseline data shall be put in public domain by 15.02.2015.
- (iii) Any Claims and objections received shall be addressed in a transparent manner and continuous modifications can made in the baseline data.
- (iv) Based on this house to house survey, all households practicing open defecation shall be identified and ULB's need to approve either a Household toilet or plan for community toilets for each of such identified household/group of household.

- 4.3.2. Beneficiary households will be targeted under this scheme irrespective of whether they live in authorized/unauthorized colonies or notified / non-notified slums. Under SBM (Urban), tenure security issues are to be de-linked with benefits.
- 4.3.3. The states and ULB's must ensure that the maximum number of beneficiaries from individual households toilets will be normally limited to the numbers indicated in the Census of India 2011 for each town.
- 4.4. Central government incentive for the construction of household toilets will be Rs. 4,000 per household toilet for each identified beneficiary household.
- 4.4.1. 50% of the Central Government incentive (Rs. 2,000/-) will be released to the identified beneficiary household by the ULB as 1<sup>st</sup> installment on approval by the ULB along with share of the state government. There is no bar on releasing any extra funds at any stage using additional resources generated/provided by state government/ ULB.
- 4.4.2. The ULB shall verify each application before releasing any incentive. Verification of the application should be completed within 7 working days of its submission of application by the beneficiary.
- 4.4.3. The remaining 50% of Central Government incentive as 2<sup>nd</sup> installment should be released to the identified beneficiary household along with the State Government's incentives upon verification of physical progress of construction of the household toilet. The actual process of verification will be as per the directions of the respective State Government.
- 4.4.4. Final Verification of the construction of the household toilet should be supported by location-based technologies, wherein self-attested geo-tagged photographs of the construction, along with the applicant are taken out. These photographs must be uploaded to the SBM (Urban) MIS and be monitored by the ULBs and the States.
- 4.4.5. All financial incentives (government and /or private) for this component will be deposited directly (by electronic clearing service) into the bank accounts of the beneficiary households (including accounts opened under the *Pradhan Mantri Jan Dhan Yojana*). No cash/cheque disbursals shall take place.

The ULBs should ensure that financial incentives to beneficiary households are transferred in a timely and hassle-free manner. The State government should evolve standard norms for this throughout the state and ensure the monitoring of its implementation.

### 5. SBM (Urban) Component II: Community toilets

- 5.1. Under SBM (Urban), it is estimated that about 20% of the urban households in cities, who are currently practicing open defecation are likely to use community toilets as a solution due to land and space constraints in constructing individual household latring.
- 5.2. Community toilet blocks will consist of a given number of toilet seats, as per requirements, toilet superstructure including the pan and water closet, and a substructure (either an on-site treatment system, or a connection to underground sewerage/septage system) shared by all the toilet seats and facilities for hand wash.
  - 5.2.1. Care should be taken to ensure that these facilities have adequate provision for separate toilets and bathing facilities for men, women and facilities for the disabled (e.g. ramp provision, braille signage, etc.).
  - 5.2.2. The norms for connection of the superstructure to an on-site system or connection to an underground sewerage system as defined in paragraphs 4.2.1 and 4.2.2 above will apply here.
  - 5.2.3. ULBs should ensure that all community toilets being constructed under SBM (Urban) are built in tandem with water supply arrangements in ULBs. Suggested technical specifications, technologies and tentative cost of community toilets are available at *Annexure II*.
- 5.3. For this component, *beneficiaries* shall be groups of households ("beneficiary household group") in urban areas whose members practice open defecation and who do not have access to household toilet, and for whom the construction of individual household toilets is not feasible. Beneficiary household groups under this component of SBM (Urban) shall be identified by the procedure as designed by the ULB. This may be application based or survey based, with or without participation of community based organisations. Involvement of civil society organisations is to be encouraged. NGO's, Area, Ward or Mohalla Sabha's may be used for this purpose. Beneficiary household groups will be targeted under this scheme irrespective of whether they live in authorized/unauthorized colonies or notified / non-notified slums. Under SBM (Urban), tenure security issues are to be de-linked with benefits.

- 5.4. Once a sufficient number of households are identified as a group, the ULB shall identify suitable piece of land adjoining their houses/dwelling and design the toilet block. Efforts should be made to look into all possible sources of revenue generation by leveraging land ,use of rooftop or any other means.
- 5.5. Central government incentive for the construction of community toilets will be in the form of 40% Grant/VGF, for each community toilet block constructed. The remaining funds have to be generated as indicated in para 2.6 above.
- 5.6. Projects will be prepared and sanctioned by ULBs. In the entire project approval and procurement process, all provisions and procedures as prescribed by respective State Governments for ULBs must be followed in their entirety. The entire approval procedure except for release of Central funds will end at the ULB level. To this end the States are required to empower the ULBs if not already done so. This includes the delegation of powers to allot land (for this purpose) to ULB's and mechanisms to leverage this land to make the Community Toilet a viable project.
- 5.7. All community toilets constructed under SBM must have a minimum 5 year maintenance contract.
- 5.8. States will contribute a minimum of 25% funds towards community toilet projects to match 75% Central Share. (10% in the case of North East States and special category states).

### 6. SBM (Urban) Component -III: Public Toilets

- 6.1. Under SBM (Urban), States and ULBs will ensure that a sufficient number of public toilets are constructed in each city. All prominent places within the city attracting floating population should be covered.
- 6.2. Care should be taken to ensure that these facilities have adequate provision for men, women and facilities for the disabled (e.g. ramp provision, braille signage, etc.) wherever necessary. Suggested technical specifications, technologies and tentative cost of public toilets are available at *Annexure II*.
- 6.3. ULBs should ensure that all Public Toilets being constructed under SBM (Urban) are built in tandem with water supply arrangements in ULBs.
- 6.4. There will be no Central Government incentive support for the construction of public toilets under SBM (Urban). States and ULBs are encouraged to identify land for public toilets, and leverage this land and advertisements to encourage the private

sector to construct and manage public toilets through a PPP agreement. Additional funding support by any means other than Gol grant can be used for public toilets.

- 6.5. The Projects will be prepared, sanctioned and implemented by ULBs. In the entire project approval and procurement process, all provisions and procedures as prescribed by respective State Governments for ULBs must be followed in their entirety. The entire approval procedure should end at the ULB level. To this end the States are required to empower the ULBs if not already done so. This includes the delegation of powers to allot land (for this purpose) to ULB's and mechanisms to leverage this land to make the Public Toilet a viable project.
- 6.6. All Public Toilets constructed under SBM must have a minimum 5 year maintenance contract.

### 7. SBM (Urban) Component IV: Solid Waste Management

- 7.1. Municipal Solid Waste Management (MSWM) refers to a systematic process that comprises of waste segregation and storage at source, primary collection, secondary storage, transportation, secondary segregation, resource recovery, processing, treatment, and final disposal of solid waste. The Manual on Municipal Solid Waste Management, 2000 published by M/o UD and revised from time-to-time, may be referenced for DPR formulation and implementation.
- 7.2. ULB's are to prepare DPR for Solid waste management of their city in consultation with state governments. Smaller cities can form clusters to become viable entities to attract private investment. 100% Cost reimbursement for preparing the DPR shall be done by GoI as per unit cost and norms set up by NARC.
- 7.3. State governments may handhold ULB's in quickly preparing DPR's for SWM by empanelling /shortlisting /identifying private or government agencies for the same.
- 7.4. The DPR's should be bankable, having a viable financial model. These will be prepared emanating from the needs identified in the City Sanitation Plan. DPRs should be aligned with Govt. of India's goals outlined in the NUSP 2008, SWM rules, advisories, CPHEEO manuals (including cost-recovery mechanisms), O&M practices and Service-level Benchmark advisories released by M/o UD from time to time. Street Sweeping and litter control interventions will be part of DPR which is essential for a clean city.

- 7.5. In order to promote projects of waste to energy, it is clarified that the central government Grant / VGF may also be used for such projects, either upfront or as generation based incentive for power generated for a given period of time.
- 7.6. The State High Powered Committee (HPC) will authorize institutes of national repute for appraisal of DPRs for the technical and economic appraisal of DPRs for projects recommended by ULBs. No appraisal will be done by MoUD. The cost of DPR appraisal by these institutes shall be an admissible component under administrative costs, subject to norms as approved by MoUD.
- 7.7. The performance and quality of appraisal by these identified and authorized institutes will be evaluated and monitored by HPEC as well as NARC and corrective actions taken wherever necessary.
- 7.8. The State Level high power committee will approve the DPR as well as the financial model of solid waste management.
- 7.9. The implementation of SWM projects will be as per directions of State Level High Power Committee.
- 7.10. Central government incentive for the SWM projects will be in the form of a maximum of 20% Grant / VGF for each project. The remaining funds have to be generated as indicated in para 2.6 above.
  - 7.10.1. While considering projects under MSWM it will be ensured that there is no duplication in terms of funding under any other scheme or programme.
  - 7.10.2. Detailed technical and financial appraisal of the DPRs will be carried out in the manner prescribed in paragraph 10.5.4. O&M arrangements for the project shall necessarily be an integral part of the project in the DPR.
  - 7.10.3. SWM projects will be sanctioned by the State level HPC which shall include a representative of the MoUD. In the entire project approval and procurement process, all provisions and procedures as prescribed by respective State Governments must be followed in their entirety. The entire approval procedure for MSW projects except for release of Central funds will end at the State Level.
  - 7.10.4. The States shall be free to choose the technology for SWM projects, toilets and street sweeping. The Ministry of Urban Development shall, from time to time, bring to the notice of the States, through advisories and manuals, and other consultative mechanisms, various options available in these fields.

7.10.5. States will contribute a minimum of 25% funds for SWM projects to match 75% Central Share.(10% in the case of North East States and special category states).

### 8. SBM (Urban) Component -V: IEC & Public Awareness

- 8.1. A key strategy under SBM (Urban) is behavior change communication to ensure that sanitation as an issue is mainstreamed with the general public at large and should cover issues of open defecation, prevention of manual scavenging, hygiene practices, proper use and maintenance of toilet facilities (household, community or otherwise), etc., and its related health and environmental consequences. Communication material for behavior change shall be designed in consultation with the M/o Information and Broadcasting, M/o Health & Family Welfare, and should be in sync with the material being used under SBM (Rural).
- 8.2. A total of **15%** of the total central allocation will be earmarked for this component. Of this, **12%** will be earmarked for States to undertake massive public awareness campaigns on sanitation and establishing its link to public health, hygiene and the environment through various means including radio, social media, documentaries, plays, workshops, etc. The remaining **3%** will be earmarked for the MoUD to draw a national media campaign and developing standard campaign tools for effective awareness and communication on sanitation.
- 8.3. Expenditure on Newspaper and TV is not an admissible item under this component for the state government or for the ULB's as this is taken care by government of India ministries and organisations.
- 8.4. States shall prepare an annual action plan, with details of State funding commitment, for Public Awareness & IEC and State HPC shall approve it. At least 50% of the IEC fund in each annual plan, as approved by State HPC, must go to the ULB's for IEC activities at the grass root level.
- 8.5. HPEC at State level shall be the competent authority to authorize and delegate administrative powers for use of the state level funds within the approved plan. ULB's shall be competent to spend the minimum 50% part of the ULB level funds, as per approved plan.
- 8.6. Under no circumstance shall this fund be utilized for purchase of vehicles, construction and maintenance of buildings, creation of posts and payment of salary, and purchase of furniture and fixtures.

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States will contribute a minimum of 25% funds towards IEC & Public awareness to match 75% Central Share (10% in the case of North East States and special category states) in each annual plan.

## 9. SBM (Urban) Component VI: Capacity Building and Administrative & Office Expenses (A&OE)

- 9.1. **3**% of the total Central Government allocation under the mission will be earmarked for capacity building, administrative and office expenses of States and ULBs.
- 9.2. **2%** of the total Central Government allocation under the mission will be utilized at MoUD level for capacity building, convening national and regional workshops, various awards and best practice recognition, programme research, studies, international cooperation for capacity building and technology development, A&OE and various eligible purposes in consultation with the Integrated Finance Division (IFD) of the M/o UD.
- 9.3. States shall propose extensive capacity building activities to be implemented in a mission-mode manner, which will enable the progressive achievement of objectives of SBM (Urban) in a time-bound manner. These will be specified in the comprehensive annual action plan prepared by each state. This will be approved by State Level High Power Committee after sharing and considering suggestions from MoUD. At least 50% of this fund, in each annual plan, as approved by State HPC, must go to the ULB's for activities at the ULB level.
- 9.4. HPEC at State level shall be the competent authority to authorize and delegate administrative powers for use of these funds. ULB's shall be competent to use the minimum 50% fund, as per approved plan, passed on to them.
- 9.5. States will be encouraged to use other available capacity building funds to dovetail or integrate capacity building activities of ULB's.
- 9.6. States and ULBs should identify relevant officials (both senior level officials and field-level functionaries) for training and draw up a calendar of training for them. It will be the responsibility of the State Mission Director to ensure that identified officials undergo adequate capacity building / training to ensure the success of SBM (Urban) in the state. Additionally, states should also identify relevant officials / persons capable of spreading the training on sanitation under SBM (Urban) as "master trainers" who can attend central government training on SBM (Urban) and then organize subsequent training to diffuse the message of SBM (Urban) in the states.

- 9.7. All support structures for implementing the mission at the state and ULB levels defined in the Mission Management Structure (section 11 of the SBM (Urban) guidelines), *i.e.*, the Programme Management Units (PMUs) at the State level, the Programme Implementation Units (PIUs) at the city level, and Independent Project Review & Monitoring Agencies (IPRMA) etc., engaged on an outsourced basis, shall be funded under this head.
- 9.8. Under no circumstance shall this fund be utilized for purchase of vehicles, construction and maintenance of buildings, creation of posts and payment of salary, and purchase of furniture and fixtures.
- 9.9. States will contribute a minimum of 25% funds towards Capacity Building and Administrative & Office Expenses (A&OE) to match 75% Central Share.(10% in the case of North East States and special category states) in each annual plan.

### 10. Funding pattern and financial process

### 10.1. Funding pattern: Guiding Principals:

- a) First installment will be released to states on receipt and acceptance of proposal containing the brief concept state sanitation strategy as given in **Annexure IV**.
- b) For House Hold Toilets, Funds in the first installment will be released as per number of beneficiary household identified, in the concept sanitation plan, at the rate of Rs. 2000/- Central assistance.
- c) For Community Toilets and Solid Waste Management Projects, Adequate funds will be released on the proposal of the State Government for SWM and Community toilet projects. It will be ensured that funds do not remain parked with the state governments Gol share of grant / VGF may be drawn from this pool fund maintained at state level. This will be replenished on demand by states based on progress.
- d) For IEC, Capacity Building and Administrative expenditure, appropriate percentages of (a) and (b) above shall be added to the first installment.
- e) States will contribute a minimum of 25% funds towards all components to match 75% Central Share. This will be 10% in the case of North East and special category States.
- f) Subsequent installments shall be released based on utilization certificates of previous grants, physical and financial progress and other indicators as approved and desired by the National Advisory & Review Committee (NARC).

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### 10.2. Clarification on Grant v/s VGF

- 10.2.1. Under Swachh Bharat Mission, projects under PPP mode are encouraged, to invite private capital in urban infrastructure as well as to bring in private sector efficiency in delivery of urban services and O & M. It is also understood that in the current scenario, there may be a requirement for viability gap funding. For solid waste management, revenue streams such as Compost from organic waste, recycled construction material from C & D waste, Power from waste to energy plants can be leveraged.
- 10.2.2. All ULB's must first explore possibility to take up the projects in a PPP mode for the above reasons. Government of India funds as per prescribed funding pattern will be available for claiming VGF.
- 10.2.3. State governments can also add or generate funds for ULB's as additional incentives over and above minimum 25% share required to make the projects viable.
- 10.2.4. Release of VGF grants will be as per contractual arrangement with the private partner and as approved by state government. However, it will be ensured that funds do not remain parked with the state governments.
- 10.2.5. Adequate funds will be released on acceptance of the proposal of the State Government for SWM and Community toilet projects. ULBs will initiate project preparation and bidding as per the guidelines for community toilets and SWM.
- 10.2.6. States will release the Central Government share of VGF adding their share in conformity with the contractual requirements of the project taken up on PPP mode.
- 10.2.7. In case state government feels that a project is not suitable to be taken under PPP methodology, it may then consider the Gol share (as per funding pattern) to be treated as Grant from Gol to the ULB. It will be up to the state government and ULB to arrange for the balance resources for the project, which must be ensured at the time of approving a project.
- 10.2.8. For PPP Projects, state governments to follow their own policy and rules. No project shall be referred to Government of India.

#### 10.3. Allocation of funds to States / UTs

10.3.1. The mission will be implemented with the following classification of funding to states:

S. No.	Classification  Classification  Classification  Classification  Central Govt.  funding		Total Amount for Mission Period Rs. Crore
i.	Project Fund based on Normative Criteria	60%	8773.80
ii.	Performance Fund based on Performance Matrix	20%	2924.60
iii.	Public Awareness & IEC Activities	15%*	2193.45
iv.	Capacity Building & A&OE	3%	438.69
٧.	Research, Capacity Building & A&OE (M/o UD)	2%	292.46

<sup>\*3%</sup> of which to be retained by M/o UD

### 10.3.2. The **Project Fund** specified in 10.3.1(i) above shall be allocated as follows:

i. The distribution of the Project fund will be as under: (Rs. in Crore.)

a.	Project Funds for States other than	80%	7019.04
	the North-East		
b.	Project Funds to North-East States	10%	877.38
C.	Flexi Funds*	10%	877.38

<sup>\*</sup>Flexi Funds in terms of the Department of Expenditure OM No. F.No.55(5)/PF.II/2011 dated 06.01.2014) will be available to states

- ii. Where ever it is required for fund allocation to be divided among States/ UTs it will be done by giving :
  - A) 50% weightage to the ratio of urban population in each State / UT to the total urban population, and
  - B) 50% weightage to the ratio of number of statutory towns in each State / UT to the total number of statutory towns.

Both ratios shall use Census 2011 data. Details of distribution of Project Fund across States / UTs are at Annexure III.

- 10.3.3. The **Performance Grant** specified in 10.3.1(ii) above shall be kept with the SBM National Mission Directorate as Performance Grant and released as per the criteria mentioned below for rewarding performing states. The release of the performance grant shall be based on a Performance Matrix and Third Party Evaluation by the Independent Project Review & Monitoring Agency (IPRMA) on the following outcomes:
  - a. Elimination of open defecation
  - b. Conversion of insanitary latrines into pour-flush latrines
  - c. Eradication of manual scavenging
  - d. Prevention of pollution of water sources
  - e. Ensuring cleanliness and hygiene in public places
  - f. Awareness creation
  - g. Capacity building

The National Advisory & Review Committee (NARC) at the M/o UD may also design other relevant criteria for the release of these funds and shall take a final view regarding the release of this grant keeping in view the progress made and circumstances of each State. This will not be applicable in the first installment. No withholding of 20% shall be done while releasing the first installment to the states.

#### 10.4. Disbursal of funds to States / UTs and ULBs

- 10.4.1. States / UTs will submit a proposal for release of grant to the Central Government based on projections and authenticated targets with a Concept Note on State Urban Sanitation strategy in the format given in **Annexure IV**. This shall be submitted online to the SBM National Mission Directorate.
- 10.4.2. On acceptance of the State Government's proposal by the ministry, first installment of funds shall be disbursed to States / UTs in the following manner:
  - 50% of the project fund shall be divided among states as per the formula mentioned at 10.3.2 (see also Annexure III).
  - 12% of Project funds released above shall be released as IEC and the Public Awareness component and,

- 3% of the Project funds released above shall be released or the Capacity Building and A&OE funds.
- iv. No withholding of 20% shall be done on account of performance grant, while releasing the first installment to the states.
- 10.4.3. Subsequent installments (including for Capacity Building & IEC, and the Public Awareness and A&OE) shall be released on
- Submission of the Utilization Certificate for 75% of the fund released as 1<sup>st</sup> installments and,
- (ii) Satisfactory physical and financial progress as per NARC criteria.

The quantum of subsequent installments will be based on actual demands and projections of expenditure for admissible components as per funding pattern of SBM.

- 10.4.4. Release of central contribution towards Grants / VGF by States/UTs for projects shall be in a manner described in paragraph 10.1 and 10.2 above.
- 10.4.5. At the end of the 2<sup>nd</sup> and 3<sup>rd</sup> quarters of each Financial Year, the use of allocated funds by States / UTs under the mission shall be reviewed by NARC, and NARC may reallocated funds from non-performing states to performing states based on the potential to utilize funds in a given financial year.
- 10.4.6. State governments shall evolve a suitable mechanism to release funds along with state share to ULBs within 30 days of release of the central share by M/o UD. Interest at the rate specified by the M/o Finance from time-to-time shall be levied on the State for any delay in release of funds to ULBs beyond 30 days. This will be implemented by appropriate deductions from the state's next installment of fund release under the mission.

#### 10.5. Sanction of projects (DPRs)

- 10.5.1. Projects will be sanctioned by state government (HPEC) or ULBs as prescribed in these guidelines. This is specified for each component of SBM in these guidelines.
- 10.5.2. Only new projects will be considered under the Mission and it will be ensured that there is no duplication. Projects will be considered as "new" if they are not projects already sanctioned and ongoing under state and central schemes and externally-aided programmes.

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- 10.5.3. Wherever Detailed Project Reports (DPRs) are to be prepared for project sanction, fund release and monitoring, the cost of DPRs for the projects under the Mission shall be reimbursed subject to norms set-up by the NARC.
- 10.5.4. The State High Powered Committee (HPC) will authorize institutes of national repute for appraisal of DPRs for the technical and economic appraisal of DPRs for projects recommended by ULBs. The cost of DPR appraisal by these institutes shall be an admissible component under administrative costs, subject to norms as approved by MoUD.
- 11. Mission Management Structure Swachh Bharat Mission (SBM)
  Urban will have a three-tier mission management structure as follows:

#### 11.1 National Level

- 11.1.1. A National Advisory and Review Committee (NARC) headed by the Secretary, M/o UD, and comprising representatives of relevant line ministries will be notified by the M/o UD. NARC will meet as per the requirements, but will meet at least once in three months. The functions of NARC will be:
  - i. Overall monitoring and supervision of SBM (Urban)
  - ii. Advise the States / UTs to explore avenues for innovative resource mobilization of private financing and leveraging land for PPP in sanitation projects.
  - iii. Approve installments and release of installment of funds for states / UTs by Central Government under the mission.
  - iv. Develop and modify performance matrix and criteria for the release of performance grants to States / UTs as specified in paragraph 10.3.3.
  - v. Monitor outcomes and performance of projects sanctioned under SBM (Urban)
  - vi. NARC may delegate, as it considers appropriate, some of the functions within prescribed limits, to the National Mission Director (NMD) of the SBM National Mission Directorate to ensure speedy implementation of the mission
- vii. Any other issue which may be referred to it by the Government
- 11.1.2. The **SBM National Mission Directorate** will be headed by a National Mission Director (NMD) who will not be below the rank of Joint Secretary to the Government of India.
  - i. The NMD will be the overall in-charge of all activities related to SBM (Urban). NMD will be supported by a suitable team of officers at the

- National Mission Directorate and will be Member-Secretary of NARC for all matters.
- ii. The Mission Directorate shall be supported by a dedicated Project Management Unit (PMU) with 10-12 experts and support staff mainly on an outsourced basis. The PMU shall cover 4 verticals – Programme management, IEC & Media, Information Technology, and Monitoring & Evaluation.
- iii. The SBM National Mission Directorate will formulate a framework for support structure for the State Mission Directorates and issue appropriate guidelines / advisories to states from time-to-time.

#### 11.2. State level

- 11.2.1. A **High Powered Committee** (HPC) under the chairpersonship of the State's Chief Secretary, and with members drawn from concerned departments (including a MoUD representative) shall be responsible for the management of SBM (Urban) at the State / UT level. The functions of the SLMRC will include:
  - Preparation, approval, and online publishing of the State Sanitation Strategy (SSS) for the respective state and City Sanitation Plan (CSP) for all cities covered under SBM (Urban), if not already done.
  - ii. Finalisation of the Concept Note on the Urban Sanitation Situation before submission to the SBM National Mission Directorate
  - iii. Empanel consultants of repute and experience for:
    - a. Preparation of DPRs under SBM
    - b. Conducting independent review and monitoring during execution of projects
- iv. Empanel reputed Institutes like IITs, NIT's, State Technical Universities etc. for appraisal of DPRs.
- v. Sanction projects relating to Solid Waste Management recommended by the ULBs.
- vi. Plan for additional resource mobilization.
- vii. Plan for fund flow in the short, medium and long term
- viii. Recommend proposals for release of installments of funds for projects under the mission
- ix. Monitor outcome and O&M arrangements of projects sanctioned and completed under the mission

- x. Review the progress of Capacity Building, IEC, and Public Awareness activities under the mission and approve their annual action plan.
- xi. Address violation of norms and conditions
- xii. Ensure convergence of action for sanitation in the state and bring about inter-departmental coordination for this purpose as and when required.
- xiii. Ensure timely audits of funds released and review the "Action Taken Reports" on various Audit reports of the mission and other similar reports
- xiv. Review legal issues, if any
- xv. Take up any other matter relevant for the efficient implementation of the mission, or matters referred to it by the SBM National Mission Directorate
- 11.2.2. The **SBM State Mission Directorate** will be located within the Urban Development Department (UDD) in the State / UT.
  - The SBM State Mission Directorate will be headed by a State Mission Director (SMD) of appropriate seniority. The SMD will also function as Member-Secretary to the State Level HPC.
  - ii. The SMD will create / notify a uniform structure across the state for the planning, designing, project preparation, appraisal, sanction and implementation of sanctioned projects under the mission at the ULB level. This shall be done keeping in mind the advisories issued by the National Mission Directorate from time-to-time.
  - iii. The Mission Directorate shall be supported by a dedicated Project Management Unit (PMU) on an outsourced basis.

#### 11.3. ULB level

The SBM is envisaged as People's movement (Jana Andolan) for ensuring hygiene, waste management and sanitation across the country. It is therefore essential that in its implementation the ULBs elicit the active participation of the Ward Committees, Area Sabhas, Resident Welfare Associations, NGOs and Civil Society Groups.

#### 12. Monitoring & Evaluation (M&E)

12.1. States / UTs will be required to send in Monthly Progress Reports (MPRs) / Quarterly Progress Reports (QPRs) in prescribed formats with regard to targets and achievements. Apart from these, the Mission Directorate may prescribe other reports that may be considered appropriate from time to time. Given the scale of the mission, a comprehensive and robust IT enabled MIS will be established for tracking of targets and achievements. States / UTs will be required to submit progress reports online once this MIS is operational.

- 12.2. Monitoring activities will include, but not be limited to, third party evaluation, impact evaluation studies, etc. The evaluation of the mission will be undertaken during the course of its implementation to effect mid-term correction and align the mission to achieve its objectives
- 12.3. A **District Level Review and Monitoring Committee (DLRMC)** will be constituted with a view to fulfill the objective of ensuring satisfactory monitoring of projects under the Chairpersonship of a Member of Parliament. Detailed guidelines for this purpose will be issued separately by the SBM National Mission Directorate.

#### 13. Logo and Tag line

The Logo and Tagline for the SBM (Urban) is given in **Annexure V**. This shall be displayed prominently on all projects and literature/publications under the mission.

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#### Annexure I: Targets and definitions under SBM (Urban)

(Definitions reproduced from "House & Household Series Tables, Census of India 2011)

#### Targets under SBM (Urban)

For the purpose of SBM (Urban), the following action will have to be taken:

S.	Objective	Action under SBM	Census 2011
No.		(Urban) (Targets)	definition
i.		80% urban households defecating in the open to be targeted for construction of household toilets	No latrine within premises – open
ii.	Elimination of open defecation	20% urban households defecating in the open to be targeted for construction of community toilets	No latrine within premises – open
III.		Construction of public toilets for floating population (presumed at 5% of total urban population)	Total urban population
iv.	Conversion of insanitary latrines	100% of urban households having insanitary latrines to be targeted for construction of household toilets	<ul> <li>Night soil disposed into open drain</li> <li>Service latrine with night soil removed by humans</li> <li>Service latrine with night soil serviced by animals</li> </ul>
V.	Conversion of single pit latrines	60% of urban households having	

S. No.	Objective	Action under SBM (Urban) (Targets)	Census 2011 definition
		pit latrines	ventilated improved pit  Pit latrines without slab / open pit
vi.	Solid Waste management	80% of the urban population to be covered by SWM services (allowing for a 2% increase year on year)	Total urban population

#### Definition of Types of latrines under Census 2011

As per the Census of India 2011, the following various types of latrine facilities were surveyed:

- Flush / pour flush latrine connected to piped sewer system: If a pour flush latrine is connected to a system of sewer pipes that collect both human excreta and waste water and removed them from the household environment
- Flush / pour flush latrine connected septic tank: If a pour flush latrine is connected to a septic tank that collects both human excreta and wastewater and removes them from the household environment
- Flush / pour flush latrine connected other system: If the pour or pour-flush latrine is connected to any system other than a piped sewer system or septic tank e.g. excreta and waste water gets flushed into the street, yard / plot, drainage ditch or any other location
- 4. <u>Pit latrines\*</u>: defecation into pits dug into the ground for reception of night soil directly without flushing.
  - a. <u>Pit latrine with slab</u>: A pit latrine with a squatting slab or platform or set firmly supported on all sides, and raised above the surrounding ground level to prevent surface water from entering the pit, and easy to clean.
  - b. <u>Pit latrine with ventilated improved pit</u>: Pit latrines with slabs that are ventilated by a pipe extending above the latrine roof and the open end of the vent pipe is covered with mesh or fly-proof net
  - c. Pit latrine without slab / open pit: Pit latrines without a squatting slab or platform or seat

\*Census 2011 does not distinguish between single pit and twin pit latrines. However for SBM single pit latrines will be considered insanitary and shall be converted. Definition of twin pit latrine see Annexure II.

5. Night soil disposed into open drain: Where a latrine facility may exist, but the excreta and waste water is disposed directly into an open drain

- 6. <u>Service latrine</u>: where human excreta is collected in a bucket, or other container, or even allowed to collect in the open
  - a. With night soil removed by humans: where the human excreta is removed physically by human beings
  - b. With night soil serviced by animals: where the human excreta is removed physically by animals
- 7. No latrine within premises public latrine: Households have no latrines within the premises of the dwelling unit and use an available public latrine
- 8. No latrine within premises open: Households have no latrine within the premises of the dwelling unit and defecate in the open in areas such as open fields, bushes, rivers, streams, railway tracks, etc.
- 9. Insanitary latrine means a latrine which requires human excreta to be cleaned or otherwise handled manually, either in situ or an open drain or pit into which the excreta is discharged or flushed out, before the excreta fully decomposes in such manner as may be prescribed.(Chapter I Section 2(i)(e) The Prohibition of employment as manual scavengers & their Rehabilitation Act,2013)

The Census of India 2011 defines two broad kinds of urban areas as follows:

- Statutory towns are urban areas defined by administrative units that have been defined by 'statute' as urban such as municipal corporations, municipalities, cantonment boards, notified town area committees, town panchayats, or nagar palikas; and
- ii. Census Towns: All administrative units satisfying the following criteria:
   (i) it should have a minimum population of 5,000 persons; (ii) at least 75% of the male main working population should have been engaged in non-agricultural pursuits; and (iii) it should have a density of population of at least 400 persons per km² (1,000 per mile²)

#### Annexure II: Technical options for toilets under SBM (Urban)

This note explains the technical options for toilets that are recommended under the Swachh Bharat Mission (SBM) Urban.

#### On-Site Sanitation (OSS) vs. Underground Sewerage

Wherever a sewerage system is available within 30m from the proposed individual household, community or public toilets only the superstructure (i.e. toilets) may be constructed under SBM and connected to the existing sewerage system. No construction of treatment units such as twin pits, septic tank, bio-digester or bio- tank shall be allowed.

#### Features of OSS Systems

When sewage is collected, treated and/or disposed off at, or near the point of generation, without the use of an underground sewerage system, the system is called "on-site sanitation" (OSS) system. OSS systems are sanitation facilities provided for the use of individual households, community and the floating population. There are a number of situations when an underground sewerage system may not be feasible or desirable. For example, for smaller cities where construction of sewerage infrastructure may be expensive, or those cities that are in hilly areas or in undulating terrain where it may not be practical to construct a sewer network, or even in many cities that have grown organically and where not all households are connected to the existing sewerage network.

OSS systems consists of two main structures, the toilet (superstructure, including the pan and water closet) and the treatment unit. OSS retains waste in the vicinity of the toilet either in a pit, tank or vault. The treatment ranges from a basic sanitary facility such as twin-pit latrines, to a simple type of treatment system by combining a septic tank and a soak pit, or a bio-digester toilet (aerobic and anaerobic).

The following technological options for OSS are recommended under Swachh Bharat Mission (SBM) Urban for construction of Individual Household Latrines (IHL) / household toilets, group / shared latrines, and, community and public toilets

e	000	Kind	of Latrines	S		
S. No.	OSS Option	IHL	Shared Latrines	Community Toilets	Public Toilets	Application
1.	Twin-pit latrines / Leach Pits	1				<ul> <li>In low- to medium- density areas, particularly peri-urban areas, where there is space to install pits and where the digested sludge can be applied to</li> </ul>

S.	oss	Kind	of Latrines	S		
No.	Option	IHL	Shared Latrines	Community Toilets	Public Toilets	Application
						local fields and/or gardens as a fertilizer and soil conditioner  • Where water use is in the range 30–50 liters per capita per day depending upon the characteristics of the soil or groundwater level
2.	Septic Tank System with soak pit		✓			<ul> <li>Septic tanks are widely used to provide partial treatment of wastewater from individual homes, household clusters or institutional buildings where there is no sewerage network.</li> <li>For soak pits to function, soil conditions must be suitable for infiltration of effluent from septic tanks</li> </ul>
3.	Bio- digester toilets (Anaerobic - developed by DRDO)		✓		✓	<ul> <li>Widely used to provide 80% treatment of wastewater from IHL, household clusters or institutional buildings where there is no sewerage network.</li> <li>The effluent should be passed through a reed bed or soak pit before discharge.</li> <li>For soak pits to function, soil conditions must be suitable for infiltration of effluent from septic tanks</li> </ul>
4.	Aerobic BioTank	1	1	1	1	Widely used to provide 100% treatment of

0	000	Kind	of Latrines	5		
S. No.	OSS Option	IHL	Shared Latrines	Community Toilets	Public Toilets	Application
						wastewater from IHL, clusters of houses or institutional building where there is no sewerage networks. The effluent can be directly discharged since it is completely safe;  Chlorination is followed after treatment

#### Technical features and specification for toilets under SBM (Urban)

The details of technical features and specifications for toilets are given as under. The costs are simply estimates at this point of time and should be verified at the time of selection and installation of the technology.

#### I. Twin-Pit Latrine

Description	It consists of superstructure (Toilet) and treatment units (two chambers). The two underground chambers (pits) are provided to hold fecal sludge. These are normally offset from the toilet and should be at least 1 meter apart. A single pipe leads from the toilet to a small diversion chamber, from which separate pipes lead to the two underground chambers. The pits should be lined with open-jointed brickwork. Each pit should be designed to hold at least 12 months accumulation of fecal sludge.  Wastewater is discharged to one chamber until it is full of fecal sludge. Discharge is then switched to the second chamber. Just
	before the second chamber is full of fecal sludge, the contents of the first pit are dug out. During the time of storage, digestion should ensure that it is odorless and free of pathogens.
OSM	The pits must be used alternately and the diversion chamber must be accessible so that flow can be diverted between chambers. Wastewater should never be diverted back to the first chamber
O&M	before digested sludge has been removed from it.
Requirements	
	Responsibility for O&M of the twin-pit latrine rests primarily with the
	householder, who needs to ensure that the pits are used in the correct sequence and are emptied at the appropriate time.

							quired for
	emptying plant.	and to	ensure sa	fe dispos	al of sept	age at a	treatment
Additional							d gardens,
Infrastructure					ansportation	on to are	as outside
/ treatment	the city fo	r reuse o	n agricultu	ural land.			
requirements							
Limitations	may r at lea harml • Expla theref • Water	not use the st for one ess. nation of ore essen	the operantial at the rcolate th	rnately, on that the co ation and time of in rough the	r may omi ontents de maintenau istallation.	t to rest the grade are nece required to the control of the contro	is a result the filled pit and become rements is the pit and if water is
Specifications	Unit (c) <b>Minin</b> (depe betwe	b. 800 r rial – Brid num Lai nding up een two p	nd Requ	omm x 19 s per Fig. irement cation of	000 mm 1) / FRP/ - 40 Sq superstru	ı. ft 6	Cylindrical 60 Sq. ft. d distance
Specifications	(u) 3126 (	5 users		10 users		15 user	e***
		Dia	Depth (A)	Dia	Depth (A)	Dia	Depth (A)
	Pit size	900	1000	1100	1300	1300	1400
	*- only for						
	**- Group						
			or pits give				
Cost (for 5	Tentative				)/- to Rs.	20,000/-	depending
users)	upon the						

	DESIGN OF PITS UNDER DIFFERENT CONDITIONS
Normal conditions	A typical pour flush latrine with circular pits for normal conditions is shown in <b>Figure 2</b> . In rocky strata with a soil layer in between, the leach pits can be designed on the same principle as those for low subsoil water level and taking the long-term infiltrative capacity as 20 l/m2/d. However, in rocks with fissures, chalk formations, or old root channels, pollution can flow for very long distances; hence these conditions demand careful investigation and adoption of adequate pollution safeguards. Pits in

	black cotton soil should be designed taking infiltrative rate of 10 l/m²/d.  A vertical fill (envelope) of 300 mm in width with sand, gravel or ballast of small sizes should be provided all round the pit outside the pit lining in rocky strata with fissures and in black cotton soil.
In water- logged areas	The pit top should be raised by 300 mm above the likely level of water above ground level at the time of water logging. Earth should then be filled well compacted all-round the pits up to 1.0 m distance from the pit and up to its top. The raising of the pit will necessitate the raising of latrine floor also. A typical pour flush latrine in water-logged areas is shown in <b>Figure 3</b> .
In high subsoil water level	Where the subsoil water level rises to less than 300 mm below ground level, the top of the pits should be raised by 300 mm above the likely subsoil water level and earth should be filled all round the pits and latrine floor raised as stated above. A typical pour flush latrine with leach pits in high subsoil water level is shown in Figure 4.
Where space is a constraint	Where circular pits of standard sizes cannot be constructed due to space constraints, deeper pit with small diameter (not less than 750 mm), or combined oval, square or rectangular pits divided into two equal compartments by a partition wall may be provided. In case of combined pits and the partition wall should not have holes. The partition wall should go 225 mm deeper than the pit lining and plastered on both sides with cement mortar. A typical pour flush latrine with combined pits is shown in Figure 5.

### II. Septic Tank

Description	A septic tank is a buried chamber that collects, stores and treats the wastewater under anaerobic conditions. Effluent from septic tanks should be discharged into a soak pit. A well-managed septic tank will remove about 50 to 60 % of the biological load in the wastewater
Mode of operation	Solids settle in the tank and digest anaerobically. This reduces sludge volume and enables wastewater to infiltrate into the ground without clogging the leaching system. Sludge settles in the tank and digests anaerobically over time, releasing methane and other gases.
O&M Requirements	Septage must be removed from septic tanks at least once every 2 or 3 years and transported off-site for treatment prior to disposal. Municipal utility or private contractors are required for desludging of septic tanks and to ensure safe disposal of septage at a treatment plant. However the responsibility for O&M of the septic tank itself lies with the owner of the property
Limitations	<ul> <li>Cost and space requirements for the soak pit.</li> <li>Though septic tanks are designed for receiving black water, they often receive both black and grey water. As a result, the retention time in the septic tank is insufficient and the soak pit becomes hydraulically overloaded. This means that the septic tanks need to be de-sludged regularly</li> </ul>
Specifications	<ul> <li>(a) Size options for toilet / super structure as shown in Fig. 1 <ul> <li>750 mm x 900 mm x 1900mm or</li> <li>800 mm x 1000 mm x 1900 mm</li> </ul> </li> <li>(b) Material – Brick work (as per Fig. 1) / FRP / Pre-cast Cylindrical Unit</li> <li>(c) Minimum Land requirement - 40 Sq. ft. to 50 Sq. ft. (depending upon the location of superstructure)</li> <li>(d) Soak-pit size - The seepage pit may be of any suitable shape with the least cross-sectional dimension of 0.90 m and not less than 1 m in depth below the invert level of the inlet pipe. The construction shall be of perforated brickwork</li> </ul>

(e) **Recommended sizes of septic tanks** for households (up to 20 users – group / shared toilets) is given in Table 2 below:

No. of users	Length (m)	Breadth (m)		epth (m) interval of)
			2 years	3 years
5*	1.5	0.75	1.0	1.05
10**	2.0	0.90	1.0	1.4
15**	2.0	0.90	1.3	2.00
20**	2.3	1.10	1.3	1.80

<sup>\*-</sup> only for IHL.

Note 1: The capacities are recommended on the assumption that discharge from only WC will be treated in the septic tank

Note 2: A provision of 300 mm should be made for free broad.

Note 3: The sizes of septic tank are based on certain assumption on peak discharges, as estimated in IS: 2470 (part 1) and while choosing the size of septic tank exact calculations shall be made.

# Cost (for 5 users)

- Tentative cost varies from Rs. 25,000/- to Rs. 30,000/- depending upon the construction material (toilet and septic tank).
- Pre fabricated septic tanks are available at lower cost in the market, which also may be explored to speed up the implementation.

#### III. Biodigester Toilet (Developed by DRDO)

A bio-digester toilet is an anaerobic multi-compartment tank with inoculum (anaerobic bacteria) which digests organic material biologically. The details of bio-digester toilets are shown in **Figure 7**. This system converts faecal waste into usable water and gases in an eco-friendly manner.

#### Description

It can be connected to the toilet or a series of toilets. The toilet can be a superstructure fixed on the bio-digester or a separate unit. Bio-digester has an inlet, an outlet and a gas pipe.

The tank has two components, namely, anaerobic microbial inoculum (seed bacteria) and specially designed fermentation tank. The tank can be made out of Stainless steel, Mild steel, FRP or concrete. Semi-treated water from bio-digester tank is needed to be further disposed into a soak pit or a reed bed arrangement for its treatment to acceptable levels of discharge.

- As there is no sludge formation, there is no need for de-sludging and treatment.
   It is therefore more economical in the long-term as it conserves water and has minimum O&M
- Night soil degradation, occurs through microbial reaction which converts it into bio gas and odorless water.
- Technology is environmental friendly, maintenance free and efficient without depending on conventional energy sources.
- Advantages depending on conventional energy source.

   Permits use of toilet cleansing agents.
  - Suitable for mobile and stationary platforms.
  - Lifelong usage bio-digester tank does not need recharging, re-shifting or maintenance.
  - Costs lesser than the conventional toilets.
  - Easy to transport and install.

<sup>\*\*-</sup> Group household toilets

	<ul> <li>One-third to one-form</li> </ul>	ourth capacity of s	eptic tank	
	<ul> <li>Space requirement</li> </ul>	nt is less.	<u> </u>	
Limitations	•			710
Specifications	• 750 mm x • 800 mm x (b) Material – Brid  Bio tank (a) Land requirem (b) Tank internal of the control of the c	super structure – c 900 mm x 1900m x 1900mm x 1900ck work (as per Figure 1900mm – 25 sq. ft. dimensions – 1336 tion wall of 8mm the 600mm deep and or bolts at corners 8mm thickness rater sealed outlet capacity: 700 litres e space is a const	mm  j. 1) / FRP/ Pre cast Cy  mm x1036 mm x 900  nickness (adequately sind anchored by 300mm	mm tiffened by ribs) n long stainless stee and 1000 mm depth
	b. Volum litres c. Tank Table 3 - Volume of bi	ne of anaerobic ( may be constructe io-digester tank fo		
	b. Volum litres c. Tank l  Table 3 - Volume of bi	may be constructe io-digester tank fo	d with masonry also.  r various user groups: -digester / bio-toilet	Remarks
	b. Volum litres c. Tank litres have 3 - Volume of bis litres have a series with the series litres and the series litres have l	may be constructe io-digester tank for Size of bio  0.7m³ (F	od with masonry also.  r various user groups:  -digester / bio-toilet  RP / RCC material)	Remarks Individual
	b. Volum litres c. Tank  Table 3 - Volume of bit  No. of users  4-8 (Single family)  8-15 (two families)	may be constructe io-digester tank for Size of bio 0.7m³ (F) 1.2 m³ (F)	r various user groups: -digester / bio-toilet RP / RCC material) RP / RCC material)	Remarks
	b. Volum litres c. Tank l  Table 3 - Volume of bit No. of users  4-8 (Single family)  8-15 (two families)  30-50	may be constructe io-digester tank fo  Size of bio  0.7m³ (F  1.2 m³ (F  3.2 m³ (F	r various user groups: -digester / bio-toilet RP / RCC material) RP / RCC material) RP / RCC material)	Remarks Individual
	b. Volum litres c. Tank litres litres c. Tank litres c. Tank litres	may be constructed io-digester tank for size of bio 0.7m³ (Figure 1.2 m³ (Figure 3.2 m³ (Figure 6.0 m² (Figure	r various user groups: -digester / bio-toilet RP / RCC material) RP / RCC material) RP / RCC material) RP / RCC material)	Remarks Individual Group / shared
	b. Volum litres c. Tank l  Table 3 - Volume of bit No. of users  4-8 (Single family)  8-15 (two families)  30-50	may be constructe  io-digester tank for  Size of bio  0.7m³ (F  1.2 m³ (F  3.2 m³ (F  6.0 m³ (F  12.0 m³ (F	r various user groups: -digester / bio-toilet RP / RCC material) FRP / RCC material)	Remarks Individual
	b. Volum litres c. Tank litres litres c. Tank litres c. Tank litres	may be constructe  io-digester tank for  Size of bio  0.7m³ (F  1.2 m³ (F  3.2 m³ (F  6.0 m³ (F  12.0 m³ (F	r various user groups: -digester / bio-toilet RP / RCC material) RP / RCC material) RP / RCC material) RP / RCC material)	Remarks Individual Group / shared
	b. Volum litres c. Tank litres l	may be constructed io-digester tank for size of bio 0.7m³ (Figure 1.2 m³ (Figure	r various user groups: -digester / bio-toilet RP / RCC material) FRP / RCC material) FRP / RCC material) FRP / RCC material) and Rs. 15,000 depe	Remarks Individual Group / shared Community
	b. Volum litres c. Tank litres l	may be constructed io-digester tank for size of bio 0.7m³ (Figure 1.2 m³ (Figure 1.2 m² (Figure	r various user groups: -digester / bio-toilet RP / RCC material) FRP / RCC material) FRP / RCC material) FRP / RCC material) and Rs. 15,000 depe	Remarks Individual Group / shared Community ending on material of
Cost	b. Volum litres c. Tank litres l	may be constructe  io-digester tank for  Size of bio  0.7m³ (F  1.2 m³ (F  3.2 m³ (F  6.0 m³ (F  12.0 m³ (F  12.0 m³ (F  12.0 m³ (F  13.0	r various user groups: -digester / bio-toilet RP / RCC material) RP / RCC material) RP / RCC material) RP / RCC material) FRP / RCC material) FRP / RCC material) FRP / RCC material) and Rs. 15,000 dependence.  Material of constructi	Remarks Individual Group / shared Community ending on material of
Cost Estimates	b. Volume litres c. Tank litres	may be constructed io-digester tank for size of bio 0.7m³ (Figure 1.2 m³ (Figure 1.2 m² (Figure	r various user groups: -digester / bio-toilet RP / RCC material) RP / RCC material) RP / RCC material) RP / RCC material) FRP / RCC material) FRP / RCC material) FRP / RCC material) and Rs. 15,000 dependence. below: Material of construction	Remarks Individual Group / shared Community ending on material of
	b. Volum litres c. Tank litres litres litres litres c. Tank litres	may be constructed io-digester tank for Size of bio 0.7m³ (Fig. 1.2 m³ (Fig. 1.2 m²	r various user groups: -digester / bio-toilet RP / RCC material) RP / RCC material) RP / RCC material) RP / RCC material) FRP / RCC material) FRP / RCC material) FRP / RCC material) and Rs. 15,000 dependence below:  Material of constructi  Precast Cylindrical Unit	Remarks Individual Group / shared Community ending on material of
	b. Volume litres c. Tank litres	may be constructe  io-digester tank for  Size of bio  0.7m³ (F  1.2 m³ (F  3.2 m³ (F  6.0 m³ (F  12.0 m³ (F  12.0 m³ (F  12.0 m³ (F  13.0	r various user groups: -digester / bio-toilet RP / RCC material) RP / RCC material) RP / RCC material) RP / RCC material) FRP / RCC material) FRP / RCC material) FRP / RCC material) and Rs. 15,000 dependence.  Material of constructi	Remarks Individual Group / shared Community ending on material of
	b. Volume litres c. Tank litres litre	may be constructe  io-digester tank for  Size of bio  0.7m³ (F  1.2 m³ (F  3.2 m³ (F  6.0 m³ (F  12.0 m³ (F  12.0 m³ (P  12.0	r various user groups: -digester / bio-toilet RP / RCC material) RP / RCC material) RP / RCC material) RP / RCC material) FRP / RCC material) FRP / RCC material) FRP / RCC material) J and Rs. 15,000 dependence below:  Material of constructi  Precast Cylindrical Unit  11,600	Remarks Individual Group / shared  Community  ending on material of  on  Fiber reinforced plastic  22,000
	b. Volum litres c. Tank  Table 3 - Volume of bit  No. of users  4-8 (Single family)  8-15 (two families)  30-50  100-120  200-220  500-600  Toilet cost be construction; Bio-digester tank ->  No. of users / Capacity  5 to 7 users (700 Litre)	may be constructed io-digester tank for Size of bio 0.7m³ (Fig. 1.2 m³ (Fig. 1.2 m²	r various user groups: -digester / bio-toilet RP / RCC material) RP / RCC material) RP / RCC material) RP / RCC material) FRP / RCC material) FRP / RCC material) FRP / RCC material) and Rs. 15,000 dependence below:  Material of constructi  Precast Cylindrical Unit	Remarks Individual Group / shared Community ending on material of

# IV. Bio Tank / Bio Toilets (Patented by private operators and approved by the Department of Science and Technology)

	This technology differs from that of the bio-digester toilets developed
Description	by DRDO since the process adopted is aerobic - which involves a
Description	different multi-strain of bacteria which breaks down the waste matter
	through oxidization. Bio-toilets consist of a purpose built multi-

	chambered bio-tank in which the waste is stored as shown in <b>Figure 8</b> . The movement of the waste is slowed down as the waste flows from one chamber to another by a special process in the Bio-tank such that the multi-strain bio-media present in the tank can digest the waste and convert it fully into non-toxic neutral water. This water then passes through the last chamber for disinfection. Here water is treated with Chlorine where the majority of the germs are killed. The resultant water is free from all sorts of E-coli and fecal coliforms.  The bricks and mortar Bio-tank is described in the last diagramme of Figure 8. The superstructure is made of bricks and mortar. These are available in both flush and non-flush models.
Advantages	<ul> <li>Aerobic bacteria are very efficient in breaking down organic waste and the waste is decomposed into water by the bacteria within 24 hours. The end products of aerobic degradation are carbon dioxide (CO<sub>2</sub>) and water (H<sub>2</sub>O).</li> <li>The aerobic pathway also releases a substantial amount of energy.</li> <li>The Bio-toilet is available in both, portable as well as fixed models. The advantage of the portable model is that it can be shifted from one location to another as and when required, and the module can be assembled and disassembled easily.</li> <li>The Bio-toilet eliminates the need for any periodic sludge removal.</li> </ul>
Limitations	<ul> <li>The bacteria functions best in temperatures between 4 and 55 degrees centigrade</li> <li>Bio-toilets need proper bacteria inoculation periodically depending on the usage at particular sites. An in-depth understanding of the operation and use of toilets in a given area must be undertaken BEFORE choosing bio-toilets as a solution. Attention must be given to O&amp;M, especially in dense urban settlements where chances of blockage of bio-toilets increase, making it dysfunctional over a period of time if the inoculation is not done in time.</li> <li>Phenyl/ Harpic or any strong detergent/acid and bleaching powder should not be used to clean the pan. Only herbal / ayurvedic cleaning agents should be used.</li> <li>Chlorine dose is necessary for disinfection.</li> </ul>
O&M	Responsibility of cleaning the toilet / superstructure is with the owner of the household in the case of IHLs / shared latrines and with the ULB in the case of community / public toilets.
Specifications	<ul> <li>(a) Size of Toilet/ Super Structure as shown in Fig. 1 –</li> <li>750 mm x 900 mm x 1900mm or</li> <li>800 mm x 1000 mm x 1900 mm</li> </ul>

	(b) Material - Bricks and Mortar walls of Bio Digester tank and			
	Superstructure, PCC tank floor, RCC toilet floor, PVC Door and			
	Frame, RCC/PVC/GI sheet Toilet Roof.			
	(c) The Bio-toilet system consists of:			
	<ul> <li>Bio digester Tank(Bricks &amp; Mortar/FRP/Steel),</li> </ul>			
	<ul> <li>Superstructure(Bricks &amp; Mortar/FRP)</li> </ul>			
	Indian Pan/WC			
	<ul> <li>Size: 4 feet x 4 feet tank base, 4 feet tank height, 6 feet</li> </ul>			
	superstructure height.			
	Maximum usage recommended: 30 defecations/ day  his tailet (no limit on urination)			
	bio-toilet (no limit on urination)			
	(d) Land requirement - 16 Sq. ft.			
	The tentative cost of bio-toilet including super structure is			
	approximately Rs.20,000/- depending upon material of construction.			
Cost	The bio-toilets should be supplied by the manufacturers, and the O&M			
Estimates	for at least 5 years (including the feeding of inoculum in the periodicity			
	needed) along with IEC (to train users for O&M) by the manufacturer /			
	supplier also should be built into the undertaking.			
·				

#### Norms & Specifications for Community and Public Toilets

Description	of residents used primar and/or land this kind of washing, bathe community of the community	or an entire so rily in low-incopare constraints DSS systems. It thing, and a smalty  ets are provide aces such as there is a constraints	ettlement. Come informal. Pour flush of is also advisorable incinerator different flow markets, train	ommunity toiled settlements option is generable to provide in this block atting population stations or	et blocks are where space erally used in e facilities like for the use o  ion / genera other public
Septic tanks	Recommended sizes of septic tanks for community/ public toil (up to 300 users) is given below in <b>Table 5</b> .  No. of Breadth Liquid depth				
	users Length (m	Length (m)	(m)	(cleaning i	
for public /	users	Length (m)			interval of)
community	users 50	Length (m)		2 years 1.0	
115 5700			(m)	2 years	nterval of) 3 years
community	50	5.0	(m) 2.00	2 years 1.0	3 years 1.24
community	50 100	5.0 7.5	(m) 2.00 2.65	2 years 1.0 1.0	3 years 1.24 1.24

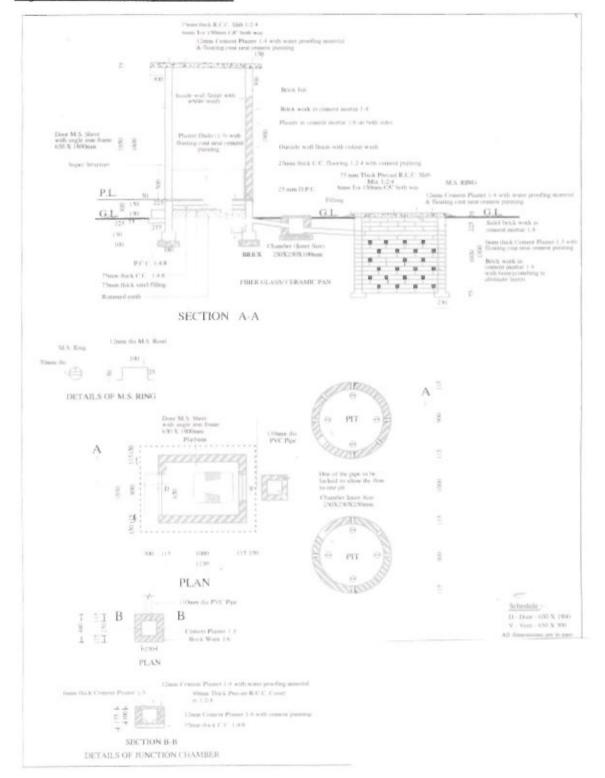
Community Toilet - Norms for toilet seats	Engine Note 1. Note 2. dischai septic t	ering A provision of The sizes of a ges, as estimated exact calc For populated chambers of One seat for	maintenance and cleaning	free board. ain assumptions on peak
	Norm:	Sanitary	ets for public toilets are gi	ven in <b>Table 6</b> below:
	No.	Unit	For Male	For Female (A)
	i.	Water Closet	One per 100 persons up to 400 persons; For over 400 persons, add at the rate of one per 250 persons or part thereof	Two for 100 persons up to 200 persons; over 200 persons, add at the rate of one per 100 persons or part thereof
Public Toilets	ii.	Ablution Taps	One in each W.C.	One in each W. C.
- Norms for toilet seats	iii.	Urinals	One for 50 persons or part thereof	Nil
tollet seats	iv.	Wash basins	One per W. C. and urinal provided	One per W. C. provided
	Source: Manual on Sewerage and Sewage Treatment Systems, 2013 Part A Engineering Note:  i) It may be assumed that two-thirds of the number are males and one-third females ii) One water tap with drainage arrangements shall be provided for every 50 persons or part thereof in the vicinity of water closet and urinals.  * At least 50% of female WCs may be Indian pan and 50% EWC iii) Separate seat may also be provided for trans-genders iv) Special arrangements may be made for physically challenged.			
Treatment units	2. 3.	Bio Tank Septic Tan	er with reed bed systems/k with Soak Pits	
Cost	and p seat v constr specif	ublic toilets yould vary d ruction, type	is Rs. 75,000/- per sea epending upon the constr e of treatment technolog etc. However the cost of t	is Rs. 65,000/- per seat t. However, the cost per ruction material, quality of y adopted and O&M for oilet in bio-digester given

	Superstructure 5 Cubicle for	or 200 users				
×.	Pre Painted galvanized Sheets	Masonry	Cement Board			
	Rs. 1,63,000.00/-	Rs.95,000.00/-	Rs. 80,000.00/-			
	Superstructure 10 Cubicle	for 400 users				
	Pre Painted galvanized Sheets	Masonry	Cement Board			
	Rs.3,26,000.00/-	Rs. 1,80,000.00/-	Rs. 1,60,000.00/-			
	Bio Digester Tank 10 KLD	) for every 200 users				
	Masonry					
	Rs. 1,74,000.00/- per 200 user					
	It must be ensured that add	oruste water sunn	ly arrangement chal			
Additional Infrastructure	It must be ensured that adequate water supply arrangement shall be made for proper functioning and upkeep of toilets. Wherever possible, ULBs should ensure that public and community toilets are outfitted with solar panels for the generation of electricity to ensure uninterrupted power supply and bring down O&M costs.					
Implementation Mode	All toilets shall be constru provision of O&M for at leas	cted through PP	P mode with inbuil			

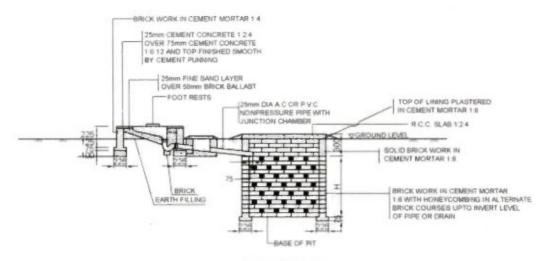
For additional details the guidelines developed by NBCC can be downloaded. (www.nbccindia.gov.in)

#### **Figures**

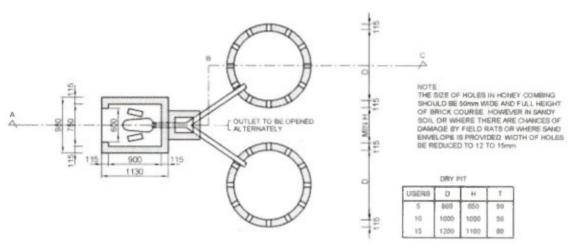
#### Figure 1: Detailed layout of toilet



#### Figure 2: Pour-flush latrine with circular pits

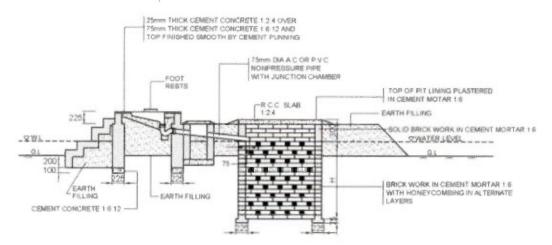


SECTION A B C

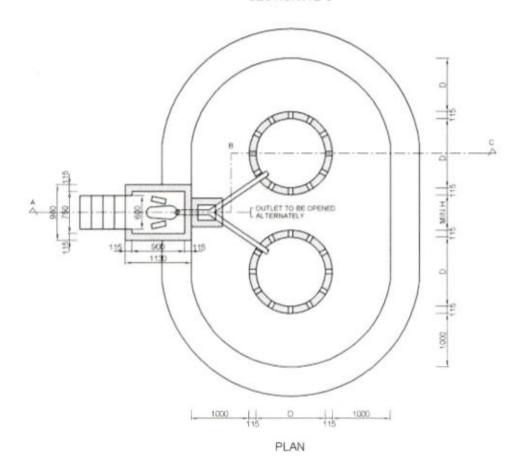


PLAN

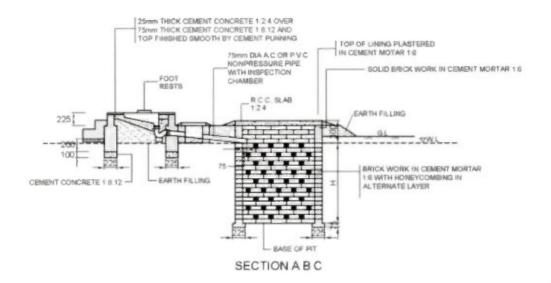
#### Figure 3: Pour-flush latrine in water-logged areas

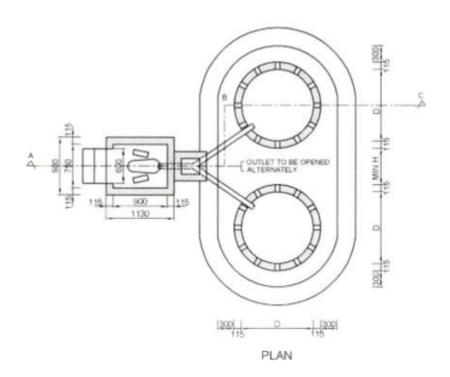


SECTION A B C



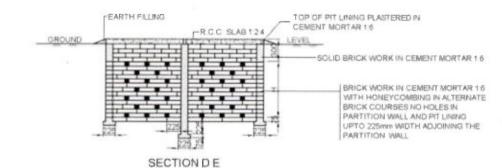
#### Figure 4: Leach pits in high subsoil water level

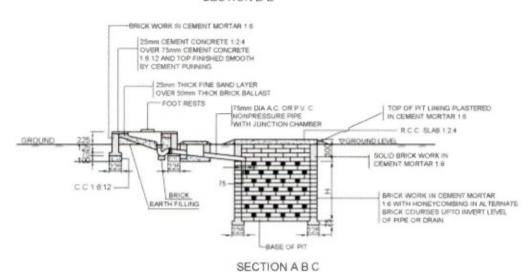


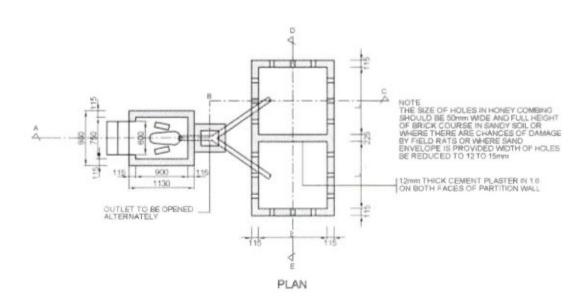


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#### Figure 5: Pour-flush latrine with combined pits







#### Figure 6: Typical sketch of two-compartment septic tank for 5 users

(Source: Manual on Sewerage and Sewage Treatment Systems, 2013, Part A: Engineering)

(Dimensions in mm)

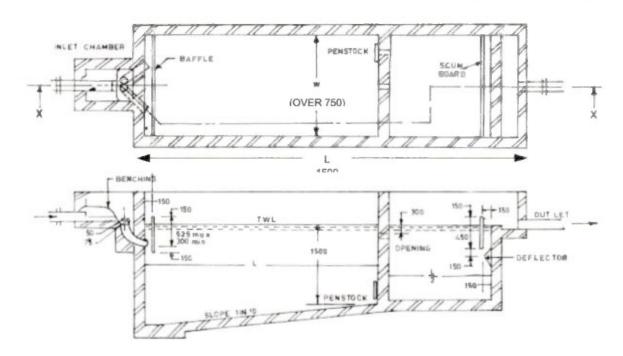


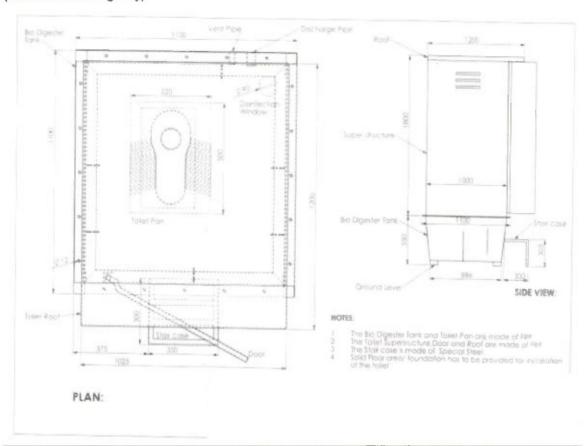
Figure 7: Details of bio-digester with reed bed

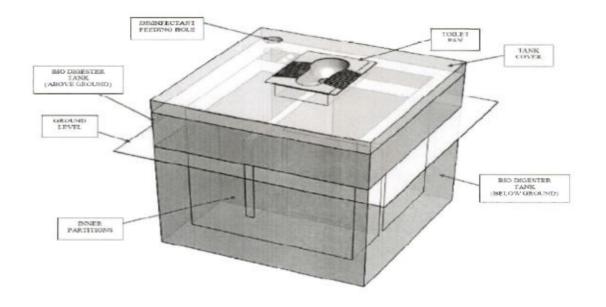
(Source: DRDO)



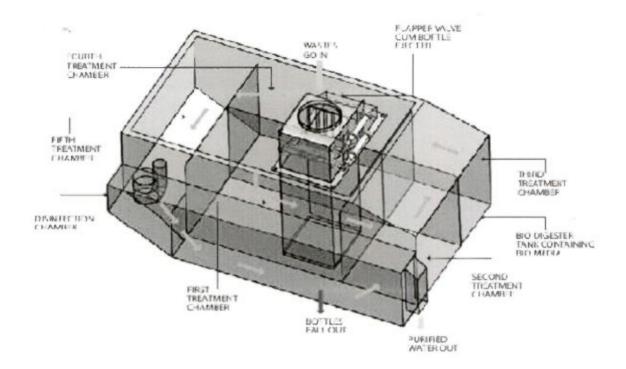
Figure 8: Details of Bio-Toilet

(Source: Private Agency)









Annexure III: Distribution of the Project Fund across States / UTs under SBM (Urban)

	POPULATION OF STAT	IN OF STATUTORY TOWNS	STATU	STATUTORY TOWNS	OPEN DEFECATION	ECATION	Fund Share*
States/UTs	Pop. (minus OG)	Population Share (%)	No.	ST Share %	HHs	HH Share %	(%)
ALL India	31,85,49,793		4,041		79,02,614		
NON-NE STATES	31,20,08,498		3,823		78,59,648		
ANDAMAN & NICOBAR ISLANDS	1,08,058	0.03%	1	0.03%	1,209	0.02%	0.03%
ANDHRA PRADESH	2,30,04,396	7.37%	125	3.27%	5,81,673	7.40%	5.32%
BIHAR	1,12,41,824	3.60%	139	3.64%	5,46,409	6.95%	3.62%
CHANDIGARH	9,61,587	0.31%	+	0.03%	6,397	0.08%	0.17%
CHHATTISGARH	56,87,885	1.82%	168	4.39%	4,15,147	5.28%	3.11%
DADRA & NAGAR HAVELI	98,265	0.03%	1	0.03%	1,992	0.03%	0.03%
DAMAN & DIU	68,273	0.02%	2	0.05%	678	0.01%	0.04%
GOA	4,01,929	0.13%	14	0.37%	5,788	0.07%	0.25%
GUJARAT	2,31,88,334	7.43%	195	5.10%	3,88,836	4.95%	6.27%
HARYANA	78,61,917	2.52%	80	2.09%	1,28,059	1.63%	2.31%
HIMACHAL PRADESH	6,58,036	0.21%	56	1.46%	10,911	0.14%	0.84%
JAMMU & KASHMIR	29,40,098	0.94%	98	2.25%	44,501	0.57%	1.60%
JHARKHAND	53,05,359	1.70%	40	1.05%	2,54,374	3.24%	1.37%
KARNATAKA	2,21,63,498	7.10%	220	5.75%	5,34,829	6.80%	6.43%
KERALA	52,47,614	1.68%	59	1.54%	18,429	0.23%	1.61%
MADHYA PRADESH	1,87,83,104	6.02%	364	9.52%	7,89,555	10.05%	7.77%
MAHARASHTRA	4,67,83,521	14.99%	256	6.70%	6,94,830	8.84%	10.85%
NCT OF DELHI	1,14,02,709	3.65%	m	0.08%	62,210	0.79%	1.87%
ODISHA	59,69,842	1.91%	107	2.80%	4,08,170	5.19%	2.36%
PUDUCHERRY	7,48,267	0.24%	9	0.16%	18,941	0.24%	0.20%
PUNJAB	95,55,705	3.06%	143	3.74%	1,02,026	1.30%	3.40%
RAJASTHAN	1,57,17,489	5.04%	185	4.84%	4,31,290	5.49%	4.94%

	POPULATION OF STATUTORY TOWNS	UTORY TOWNS	STATUT	STATUTORY TOWNS	OPEN DEFECATION	CATION	Fund Share*
States/UTs	Pop. (minus OG)	Population Share (%)	No.	ST Share %	HHS	HH Share %	(%)
TAMIL NADU	2,98,32,766	9.56%	721	18.86%	11,28,692	14.36%	14.21%
UTTAR PRADESH	4,06,94,476	13.04%	648	16.95%	9,65,922	12.29%	15.00%
UTTARAKHAND	24,89,380	0.80%	74	1.94%	19,206	0.24%	1.37%
WEST BENGAL	2,10,94,166	6.76%	129	3.37%	2,99,574	3.81%	5.07%
NE STATES	65,41,295		218		42,966		
ARUNACHAL PRADESH	3,13,557	4.79%	26	11.93%	4,241	9.87%	8.36%
ASSAM	33,19,375	50.74%	88	40.37%	27,900	64.94%	45.56%
MANIPUR	6,36,625	9.73%	28	12.84%	3,427	7.98%	11.29%
MEGHALAYA	3,75,930	5.75%	10	4.59%	1,887	4.39%	5.17%
MIZORAM	5,71,771	8.74%	23	10.55%	1,019	2.37%	89.62%
NAGALAND	5,05,440	7.73%	19	8.72%	2,279	5.30%	8.22%
SIKKIM	1,47,695	2.26%	00	3.67%	719	1.67%	2.96%
TRIPURA	6,70,902	10.26%	16	7.34%	1,494	3.48%	8.80%

#### Annexure IV

#### Concept Note on State Urban Sanitation Strategy for the State of \_\_\_\_\_

#### PART A: Parameters determining the existing urban sanitation situation

1	State Profile	
1.1	Name of the state	
1.2	Total Urban Population as per 2011 Census	
1.3	Number of Statutory towns 1 as per Census 2011	
1.4	Number of Census towns 2 as per Census 2011	
1.5	Population of statutory towns (as per Census 2011)	
1.6	Population of census towns (as per Census 2011)	
1.7	Total number of urban households	

2	Status of Sanitation Situation as per Census 2011[FOR STATUTORY TOWNS ONLY]	Total nos. as per Annexure 1 (State)*
2.1	Number of urban households resorting to open defecation (not in premises – open)	
2.2	Number of urban households having pit latrines	
2.3	Number of urban households having insanitary latrines	

Solid waste management (tentative quantity based on per capita waste generation) [FOR STATUTORY TOWNS ONLY]	Total (State)*
Total Solid waste generated (in MT)	
Total Waste collected (in MT)	
Total Waste Transported (in MT)	
No. of cities with SWM Disposal Facility	
Total Waste treated (in MT)	
	generation) [FOR STATUTORY TOWNS ONLY]  Total Solid waste generated (in MT)  Total Waste collected (in MT)  Total Waste Transported (in MT)  No. of cities with SWM Disposal Facility

<sup>\*</sup>City-wise information may also be added wherever available.

PART B: Institutional Mechanism for Swachh Bharat Mission (SBM) - Urban

	Provide Details		
Name of the Nodal Agency for SBM	[Provide name of Nodal Agency; else if not designated, provide details of process by which nodal agency will be appointed]		
Name and Designation of Nodal Officer with contact no.	[Provide name of Nodal Officer; else if not designated, provide details of process by which nodal officer will be appointed]		
Institutional Mechanism		Start date (Month / Year)	End date (Month / Year)
Constitution of the State- level High Powered Committee (S- HPC)	[Provide details of S-HPC; else if not constituted, provide details of process by which S-HPC will be constituted; timeline should be max. within 1 month of submission of concept note]		
b. Setting up of State Mission Directorate	[Provide details of Mission Directorate; else if not constituted, provide details of process by which Mission Directorate will be constituted; timeline should be max. within 1 month of submission of concept note]		
c. Setting up of PMU at the state-level under SBM	[Provide details of PMU set-up; else if not set- up, provide details of process by which PMU will be put in place; timeline should be max. within 3 months of submission of concept note]		
Submission of State Sanitation Strategy as per the National Urban Sanitation Policy, 2008 (please refer Ministry's website www.moud.gov.in)		Start date (Month / Year)	Date of submission (Month / Year)

#### PART C: Component-wise action plan for Swachh Bharat Mission (SBM) - Urban

#### **Physical Targets**

1		Targets	Baseline 2014	Cumulative Estimated Projection upto2019	Reasons/Justification based on 2001-2011 data and other factors	Target 2014- 15	Target 2015- 16	Target 2016- 17	Target 2017- 18	Target 2018- 19 (up to Oct, 2019)	Cumulative Target (2014-19)
A*	a	Construction of new individual household latrines (IHL)									[100% of 2014 baseline]
	b	Conversion of pit latrines into sanitary latrines	[Part A, 2.2.4]								[60% of 2014 baseline]
	С	Conversion of insanitary latrines into sanitary latrines	[Part A, 2.2.5]								[100% of 2014 baseline]
B*		Construction of Community toilets [NORM: 1 seat / 25 women and 1 seat / 35 men]									[100% of 2014 baseline]
C*		Construction of Public Toilets [NORM: 1 seat / 50 women and 1 seat / 100 men up to specified numbers**]	[Part A, 1.2]								[5% of 2014 baseline]
D		Solid waste Management	[No. of cities proposed to be covered]								[100% excluding the on-going project]
E		Capacity Building	[Part A, 1.3]								[100% of cities]
F		Public Awareness & IEC	[Part A, 1.3]								[100% of cities]

#### **Financial Targets**

(Rs in Crores)

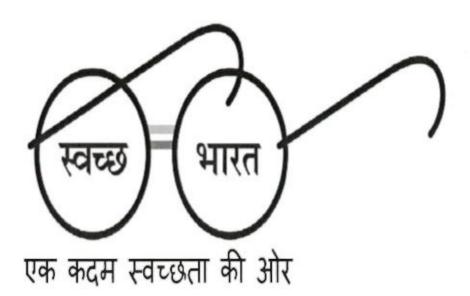
								(KS III CI OI CS)							
2	Funding [As per the funding			2014-15		2015-16		2016-17		2017-18		2018-19 (upto Oct. 2019)		Remarks	
	pattern in the SBM Urban Guidelines]		Centra I Share		Central Share	Tenta tive / estim ated	Central Share	Tentat ive / estima ted	Centra I Share	Tentat ive / estima ted	Central Share		Central Share		
A	a. Construction of new individual household latrines (IHL)(Based on the cost														

<sup>\*</sup>Efforts shall be made to construct the toilets within two years i.e. upto 2016-17.

\*\*Please also refer Manual on Sewerage & Sewerage Systems, Part A for more details (page No. 8-16)

_						-			
	per household toilets)								œ
	b. Conversion of			 					
	pit latrines into sanitary latrines								
	(based on the				1				
	household toilets)								
	c. Conversion of insanitary								
	latrines into								
	latrines (based on the								
	cost per household toilets)								
В	Construction of Community								
	toilets [NORM: 1 seat / 25 women								
	and 1 seat / 35 men] (based on								
_	cost per seat)								12/1
С	Construction of Public Toilets [NORM: 1 seat /	-	-	-	-		-	-	
	50 women and 1 seat / 100 men								
	up to specified numbers](Based								
	on cost per seat)								
D	Solid Waste Management								
	(based on per capita cost of Rs.1500/ capita								
	may be considered less								
	or more with								•
	justification in a separate sheet)								
E	Capacity Building & A&OE (5% on								
F	Central share) Public								
	Awareness & IEC (15% on Central share)								
	Total								

Annexure-V



#### PRAVEEN PRAKASH, IAS

Secretary & Mission Director (SBM)
GOVERNMENT OF INDIA
MINISTRY OF URBAN DEVELOPMENT



प्रवीण प्रकाश, आई.ए.एस. संयक्त सचिव एवं मिशन निदेशक (एस.बी.एम.)

भारत सरकार

शहरी विकास मंत्रालय

स्थलक । धारत एक कटप स्थलकता की ऑर

D.O. No.: JS-MD/MoUD/SBM/OS-2016/34

8 40 A 2 8 OCT 2016

Dated: 27/10/2016

28/19ch

Subject:

Solid Waste Management DPR for Asansol Municipal Corporation

prepared by Ministry of Urban Development, Gol.

Dear Sir,

Please refer your Letter No.: SUDA - 143/2016/1515 Dated: 09/09/2016, which is also attached herewith for your ready information.

In this regard we would like to clarify here that as the DPR for Asansol Municipal Corporation Solid Waste Management worth Rs.34.40Cr., has been prepared by the Ministry of Urban Development, thus it does not require a third party evaluation or appraisal. It may directly be put up before the State High Powered Committee for necessary approval.

Thanking you,

Encl: As above

Yours sincerely,

(Praveen Prakash)

To;

The Director,

State Urban Development Agency

H-C Block, Sector-III, Bidhannagar,

Kolkata-700106

Email: wbsudadir@gmail.com; Fax: 2358-5800



## রাজ্য নগর উন্নয়ন সংস্থা



#### STATE URBAN DEVELOPMENT AGENCY

"ইলগাস ভবন", এইচ-সি ব্লক, সেক্টর-৩, বিধাননগর, কলকাতা-৭০০ ১০৬, পশ্চিমবঙ্গ "ILGUS BHAVAN", H-C Block, Sector - III, Bidhannagar, Kolkata - 700 106, West Bengal

SUDA- 143/2016/1515

09.09.2016

ক্রামক নং

From: Director, SUDA &

State Mission Director, SBM(U)

To:

The Joint Secretary &

Mission Director, SBM(U)

Ministry of Urban Development

Government of India

Sub: DPR for Solid Waste Management for Asansol Municipal Corporation prepared by Ministry of Urban Development since received in the State Government

Sir,

We have received a DPR for Solid Waste Management in Asansol Municipal Corporation prepared by Ministry of Urban Development, Government of India at an estimated cost of Rs. 34.40 Crore (for collection and transportation only).

As per Scheme Guidelines, we are getting DPRs prepared in the State Government appraised by Appraisal Agencies authorized by State High Powered Committee. It may kindly be advised if this DPR for Asansol Municipal Corporation prepared in the Ministry of Urban Development needs to be appraised before the same is placed to the High Powered Committee for approval.

Yours faithfully,

Director, SUDA

State Mission Director, SBM(U)

2

PRAVLEN PRAKASH, IAS

Joint Secretary & Mission Director (SBM)

GOVERNMENT OF INDIA MINISTRY OF URBAN DEVELOPMENT



प्रवीण प्रकाश, आई.ए.एस. सयुक्त सचिव एवं मिशन निदेशक (एस.बी.एस.) भारत सरकार शहरी विकास मंत्रालय



D.O No. MD-SBM/AA/97/2016

27th October 2016

Sub: Clarification on Appraisal of DPRs for projects under Swachh Bharat Mission (Urban) - Reg.

Dear Sir/Madam,

As you are aware, under the guidelines of Swachh Bharat Mission (Urban), para 10.5.4, the State High Powered Committee (SHPC) is to authorize institutes of national repute for technical and economic appraisal of DPRs for projects by ULBs.

- We have received a lot of queries from states and cities regarding the same, wherein issues have been highlighted in getting the DPRs appraised by institutes, including delays and non-continuity.
- 3. MoUD would like to clarify that in case such DPRs have been prepared by third party consultants, the appraisal may be done by a technical arm of the state government, such as PWD/Public Health/other similar arms, as may be authorized by the concerned department of the state. Such appraisal may be done by competent approval levels in the technical arms as permissible by extant rules within the states. This appraisal may be considered by the SHPC towards approving projects under SBM-Urban, and does not require any further/additional appraisal by institutes of national repute are outlined in the guidelines.

I look forward to your continued support towards Swachh Bharat Mission (Urban).

With regards,

Yours sincerely?

(Praveen Prakash)

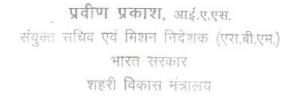
Mission Directors (SBM-U) of all states, Municipal Commissioners of 75 Cities

Copy to: Director (SBM) CPHEEO Section

#### AVEEN PRAKASH, IAS

Joint Secretary & Mission Director (SBM)
GOVERNMENT OF INDIA
MINISTRY OF URBAN DEVELOPMENT







D.O. No.: JS-MD/MoUD/SBM/OS-2016/34

Dated: 27/10/2016

Subject:

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Encl: As above

Yours sincerely,

(Praveen Prakash)

To; The Director, State Urban Development Agency H-C Block, Sector-III, Bidhannagar, Kolkata-700106

Email: wbsudadir@gmail.com; Fax: 2358-5800

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রাজ্য লগর উল্লয়ন সংখ্য

STATE USEAN DEVELORMENT ACSTICY Retrieve, abs-frage, criss-v, frankers, responsible de 1906, fifteens

SUDA- 112/2015/1515

04.09.2016

From: Director, SUDA &

State Mission Director, SBM(U)

To: The Joint Secretary &

Mission Director, SBM(U)

Ministry of Urban Development

Government of India

Sub: DPR for Solid Waste Management for Asansol Municipal Corporation prepared by Ministry of Urban Development since received in the State Government

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Director, SUDA &

State Mission Director, SBM(U)

5/2



#### D.O No. MD-SBM/AA/97/2016

27th October 2016

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Yours sincerely

Praveen Prakash)

Mission Directors (SBM-U) of all states, Municipal Commissioners of 75 Cities

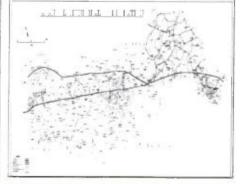
Copy to: Director (SBM) CPHEEO Section



## Asansol - City Snapshot

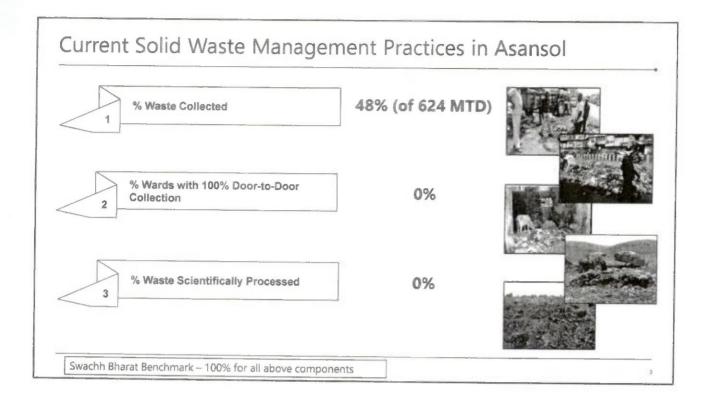
Project Name	SWACHH ASANSOL SOLID WASTE MANAGEMENT PROJECT
Name of ULB	Asansol Municipal Corporation
Year of Establishment	1885 and declared Municipal Corporation in 1994
ULB coverage area	326.48 Km <sup>2</sup>
Total No. of Wards	106
Covering Area	Covering 4 municipalities i.e. Kulti, Asansol, Jamuria & Raniganj

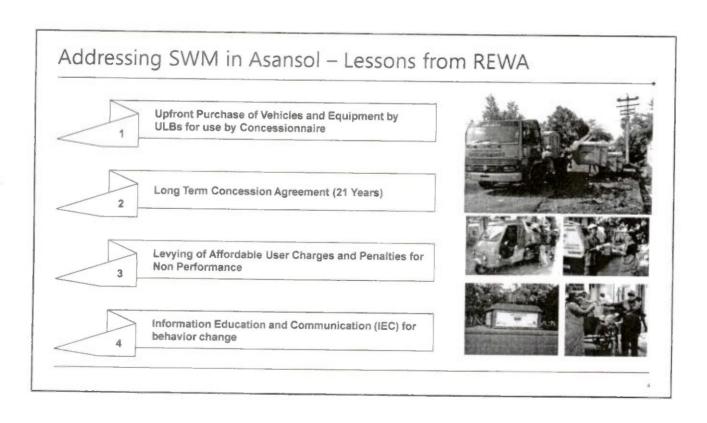
POPULATION STATISTICS	
ULB Population Census 2011	1156387
Population Density	3541.98 per Km <sup>2</sup>
Average Floating Population	2,31,277
Expected Population (2021)	1,507,703

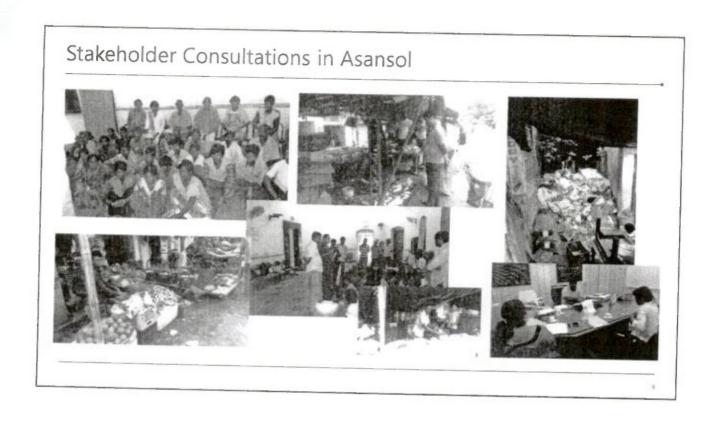


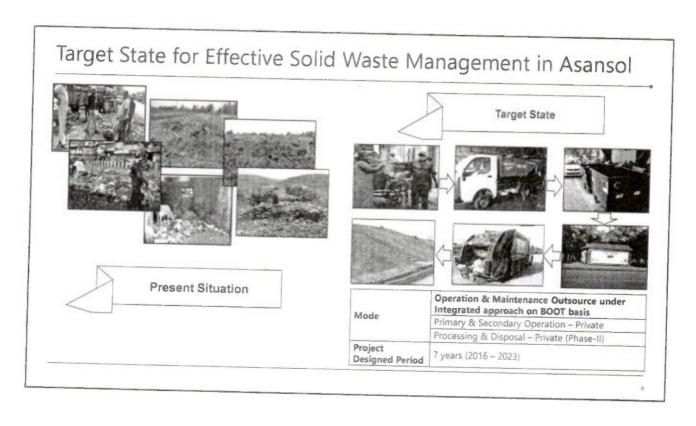
WASTE GENERATION	
Current Waste Generation	624 MTPD @450gms/ capita/ day
Expected Waste Generation by Year 2021	679 MTPD
C&D Waste	125 MTPD

2









## Proposed Approach for Asansol

#### Project 1 (Collection & Transportation)

- Focus on Collection and Transportation of municipal solid waste
- Upfront Buying of the collection and transportation equipment by Asansol Municipal Corporation to be handed over to Concessioner for implementation
- Financial Model
  - · Capital Cost of Rs. 34.40 Crore
  - SBM Central Share Rs. 11.79 Crore
  - Loan from HUDCO Rs. 21.90 Crore
  - MPLAD fund Rs. 0.72 Lakh

#### Project 2 (Processing & Disposal)

- Focus on 100% Scientific Processing and Disposal of Municipal Solid Waste
- Composting, RDF based processing with Zero Waste to Landfill
- No tipping fee on waste transportation or handling
- · Financial Model
  - Capital Cost Rs. 36.93 Crore
  - SBM Central Share Rs. 12.93 Crore
  - PPP Contribution Rs. 24.00 Crore

MRF - Materials Recovery Facility | RDF - Refused Derived Fuel

## Project 1 - Project Tools & Equipment Details

Type of Asset Code	Date	Qty	
15Ltrs (HHB)	Detail	(Nos)	
	House Hold bins for segregation at source (Cap.15Ltr)	449140	
150Ltrs (CB)	Community Bin for littering (Cap.150Ltr)		
Rickshaw	For D-2-D Collection	1562	
Wheel Barrow	For D-2-D Collection	385	
Broom	For Street Sweeping with long handle	573	
Belcha	For waste lifting	3937	
Punja	For waste lifting	1310	
Collector	For waste lifting	1310	
1.1m3 (CP Bins)		1310	
.5m3 (DP Bins)	For secondary waste collection for CPV (Cap.1100Ltr)  For secondary waste collection for DPV (Cap.4500Ltr)	215	
3m3(CC Bins)	For secondary waste	187	
	For secondary waste containerized collection, compaction & transportation(Cap.8000Ltr)	7	
Auto-Tipper	For D-2-D Collection		
PV (14m3)	Compactor Placer Vehicle for CP Bins (Cap.10-12Tons)	70	
PV	Dumper Placer Vehicle for lifting of DP Bins	7	
CB	For the support services with catcher	18	
uto Tipper from M	PLAD	4	
i F av ii dili iii			

## Project 1 - Project Financials

#### Use of Funds

	Heads	Rs.(Cr)
	Equipment (Collection & sweeping tools, apron and safety gears etc.)	0.80
Collection	Vehicles (Rickshaw, Auto Tippers etc.)	5.51
	Dustbins (Residential Bins for segregation & litter bins)	9.22
	Other Costs	0.83
	TOTAL	16.36

	Heads	Rs.(Cr)	1
	Tools & Equipment	1.78	
Transportation	Vehicles (Compactor Placers, Dumper Placers, JCB etc.)	6.64	10
Transportation	Bins (Community Bins, Dumper Bins, Compactor Bins)	3.97	C
	Transfer Station	2.72	1
	TOTAL	15,11	1

	Heads	Rs.(Cr)
Other Costs	Service Station for equipment & Vehicles	0.44
	Misc. and IDC	2.49
	TOTAL	2.93

**TOTAL PROJECT COST: Rs.34.4 Crores** 

## Roles and Responsibilities

#### **Asansol Municipal Corporation**

- To technically review the DPR for project components and get the approval from MIC
- To send the project to Mission Director through State Mission Director with SHPC approval
- Run Bid Process for selection of implementing agency
- · To ensure all compliances related to enviro-legal matters with effective monitoring and reporting
- Proper utilization of the allocated funds with proper time schedule implementation of the project.

#### State Government

- To recommend the proposed project report to central for release the agreed fund
- To provide counter guarantee for HUDCO loan
- To provide the administrative help and environmental clearances, if so required

#### Ministry of Urban Development

- To release the agreed fund amount on receiving the approved project report
- Provide technical support to the ULB, as necessary
- To support ULB in Bid Management



## রাজ্য নগর উন্নয়ন সংস্থা STATE URBAN DEVELOPMENT AGENCY



"হলগাস ভবন", এইচ-সি ব্লক, সেক্টর-৩, বিধাননগর, কলকাতা-৭০০ ১০৬, পশ্চিমবঙ্গ "ILGUS BHAVAN", H-C Block, Sector - III, Bidhannagar, Kolkata - 700 106, West Bengal

SUDA- 143/2016/1515

04.09.2016

ক্রমিক নং .....

From: Director, SUDA &

State Mission Director, SBM(U)

To:

The Joint Secretary &

Mission Director, SBM(U)

Ministry of Urban Development

Government of India

Sub: DPR for Solid Waste Management for Asansol Municipal Corporation prepared by Ministry of Urban Development since received in the State Government

Sir,

We have received a DPR for Solid Waste Management in Asansol Municipal Corporation prepared by Ministry of Urban Development, Government of India at an estimated cost of Rs. 34.40 Crore (for collection and transportation only).

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Yours faithfully,

Director, SUDA &

State Mission Director, SBM(U)

Ne

Account Section: 2358 6408







## ASANSOL'S SOLID WASTE MANAGEMENT DETAILED PROJECT REPORT

MINISTRY OF URBAN DEVELOPMENT SWACHH BHARAT MISSION Government of India, New Delhi

July 1, 2016



No. 608 8 /PS/2016

To
The Director
State Urban Development Agency
ILGUS Bhawan
HC-Block, Sector-I
Salt Lake
Kolkata

Arupratan Mukhopadhyay, WBCS (Exe.)

P.S. to Minister -in-Charge Municipal Affairs & Urban Development Department

Government of West Bengal

Writers' Buildings, Kolkata-1

Dated: 2nd August, 2016

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Sir,

As desired by Hon'ble Minister-in-Charge, Municipal Affairs & Urban Development Department, Government of West Bengal I am enclosing a detailed project report of Solid Waste Management in respect of Asansol Municipal Corporation under the Ministry of Urban Development, Swachh Bharat Mission, Government of India, New Delhi for kind perusal.

Yours faithfully,

(Arupratan Mukhopadhyay)

ARUPRA'AN MUKHOPADHYM, WBCS(EXE.)
Private Secretary to
Minister-in-charge,
Municipal Affairs &
Urban Development Deptts.
Government of West Bengal

11866 Enclo: As stated above.

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## Annexure 3: Financial Details for Asansol ISWM Project

Project Cost	Capex - Primary and Secondary Operation (Breakup)	Rs. (Cr.)
	f) Primary Collection Cost i.e. D-2-D Waste Collection, Waste handling Tools and vehicles for transportation of waste up to Transfer Station or Secondary Collection Point	15.53
	g) Secondary Operation (Waste Collection, Tools & Transportation Equipment)	10.61
	h) Waste Transfer Station (Proposed at 3 location)	4.50
	i) Service Station for the Collection Tools, Vehicles Repair and Maintenance	0.45
	j) Contingency + IDC etc.	3.32
	Total Estimated Capex on Collection and Transportation (Rs. In Crore)	34.40

Funding	Particulars		Rs.(Cr)
Pattern	Expected Total Project Cost		34.40
	(Less) MP's Local Area Development (Only on Ca	apex)	0.72
	Remaining Cost of Project (less MPLAD)	Share %	33.69
Cost	Central Share Under SBM	35%	11.79
proposed to	HUDCO Share	65%	21.90
be met from:	Total funding (Rs. In Crore)	100%	33.69

Per Capita Co	st on Total SWM Proposed Project Cost	Rs.297.51
Per Capita Co	Per Capita Cost on SWM Opex	
Concession Period	Initially for 5 years, shall be renewed thereafter for every 3 years	
ULB's	Proposed User Charges/ Fees (Polluters to Pay Principle)	Rs in Cr.
Revenue	Slum Houses (Built in Area, Less than 50m2)	3.37
Sources	Lower Income Group Houses (Built in Area, between 51 - 100m2)	10.78
	Middle Income Group Houses (Built in Area, between 101 - 200m2)	10.78
	Higher Income Group Houses (Built in Area, between 201m2 - onward)	12.13
	Commercial Units (Urban) small shops, veg. market, meat shops etc	2.02
	Healthcare establishments including bedded and non-bedded units	1.62
	Offices/ Institutions/ Schools/ Colleges/ Restaurants/ Food Clinics/ Marriage Halls/ Hotels etc	1.49
	SSI/ LIU - Industries/ Factories/	0.28
	Total Annual Revenue Generation of ULB through User Fees	42.46

Assistant Engineer
Assansol Municipal Corporation

Executive Engineer
LAsansol Municipal Corporation

Asansol wumerpar Corporation

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# ASANSOL'S SOLID WASTE MANAGEMENT DETAILED PROJECT REPORT

MINISTRY OF URBAN DEVELOPMENT SWACHH BHARAT MISSION Government of India, New Delhi

July 1, 2016



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## **Abbreviations**

ADDA Asansol Durgapur Development Corporation

AMC Asansol Municipal Corporation

AMRUT Atal Mission for Rejuvenation and Urban Transformation

C&T Collection and Transportation

CPCG Combined Per Capita Generation

DMC Durgapur Municipal Corporation

FY Financial Year

: 3

GoWB Government of West Bengal
HDPE High Density Poly Ethylene

HMV Heavy Motor Vehicle

HIG High Income Group

IEC Information Education and Communication

JNNURM Jawaharlal Nehru Urban Renewal Mission

LIG Low Income Group

MIG Middle Income Group

MSW Municipal Solid Waste

MSWM Municipal Solid Waste Management

MSW Rules Municipal Solid Waste (Management and Handling) Rules, 2000

MT Metric Tonnes/ tons

NGO Non-Governmental Organization

RWA Residents Welfare Association

SBM Swachh Bharat Mission

T&D Treatment and Disposal

TPD Tonnes/ tons Per Day

ULB Urban Local Body

WBPCB West Bengal State Pollution Control Board



## 1. Executive Summary

Project Name	Swachh Asansol Solid Waste Management Project	
ULB	Asansol Municipal Corporation	
Year of Establishment	1885 and declared Municipal Corporation in 1994	
ULB coverage area	326.48 Km2	
Total No. of Wards	106	
Municipalities	Covering 4 municipalities i.e. Kulti, Asansol, Jamuria & Rai	niganj
Mode	Operation & Maintenance Outsource under Integrated app	roach on
	Primary & Secondary Operation – Private	
	Processing & Disposal – Private	
Project Designed Period	07 years (2016 – 2023)	
JLB Population Census 2011	1156387 Nos	
Census 2011 Population Density	3541.98 per Km2	
Average Floating	231277 Nos	
Population Expected Population 2021	1507703 Nos	
Current Waste	624 MTPD @450gms/ capita/ day	
Generation Expected Waste Generation by Year 2021	679 MTPD	
C&D Waste	125 MTPD	
Project Cost	Capex - Primary and Secondary Operation (Breakup)	Rs. (Cr.
	a) Primary Collection Cost i.e. D-2-D Waste Collection,     Waste handling Tools and vehicles for transportation	15.53
	of waste up to Transfer Station or Secondary	
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Assistant Engineer
Asansol Municipal Corporation

2

Executive Engineer
Asansol Municipal Corporation

(Less) MP's Local Area Development (Only	on Capex)	0.72
Remaining Cost of Project (less MPLAD)	Share %	33.69
Central Share Under SBM	35%	11.79
HUDCO Share	21.90	
Total funding (Rs. In Crore)	100%	33.69
J SWM Proposed Project Cost		Rs.297.5
ii Svvivi Froposed Froject Cost		Rs.162.2
M Opex		
Initially for 5 years, shall be renewed therea	fter for every	3 years
Proposed User Charges/ Fees (Polluters Principle)	to Pay	Rs in Cr
Slum Houses (Built in Area, Less than 50m <sup>2</sup>	()	3.37
Lower Income Group Houses (Built in Area, - 100m²)	between 51	10.78
101 - 200m²)	10.78	
Higher Income Group Houses (Built in Area, 201m <sup>2</sup> - onward)	12.13	
meat shops etc.	2.02	
Healthcare establishments including bedded bedded units	1.62	
Offices/ Institutions/ Schools/ Colleges/ Rest Food Clinics/ Marriage Halls/ Hotels etc.	aurants/	1.49
SSI/ LIU - Industries/ Factories/		0.28
eneration of ULB through User Fees	ACT TO A	42.46
Asansol has sufficient land at below places  • Kali Pahari 10Acres &		
■ • Raniganj Mangalpur (Existing Facility) 6	UAcres appro	X
<ul> <li>No waste dumping in open/ nala/ dumpsi</li> <li>Daily picks of wastes from Primary and Sased monitoring</li> </ul>	te/ drains econdary Poil ving direct ac	cess of flies
	Remaining Cost of Project (less MPLAD) Central Share Under SBM HUDCO Share Total funding (Rs. In Crore)  Al SWM Proposed Project Cost  M Opex  Initially for 5 years, shall be renewed thereat  Proposed User Charges/ Fees (Polluters Principle) Slum Houses (Built in Area, Less than 50m² Lower Income Group Houses (Built in Area, -100m²) Middle Income Group Houses (Built in Area, 101 - 200m²) Higher Income Group Houses (Built in Area, 201m² - onward) Commercial Units (Urban) small shops, vegmeat shops etc. Healthcare establishments including bedded bedded units Offices/ Institutions/ Schools/ Colleges/ Rest Food Clinics/ Marriage Halls/ Hotels etc. SSI/ LIU - Industries/ Factories/ Generation of ULB through User Fees  32.70 Acre  Asansol has sufficient land at below places Kali Pahari 10Acres & Raniganj Mangalpur (Existing Facility) 6  100% D-2-D Waste Collection in all Muni No waste dumping in open/ nala/ dumpsi Daily picks of wastes from Primary and Sbased monitoring No open bins or waste transportation, habirds or animals	Central Share Under SBM HUDCO Share Total funding (Rs. In Crore)  100%  SWM Proposed Project Cost  Opex  Initially for 5 years, shall be renewed thereafter for every in the state of the s

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- RDF option available, because of Cement Industries presence in vicinity
- C&D option available, to handle entire construction debris & material with ULB's buy back option
- MRF option available, but at facility not in a decentralized mean
- Composting through mechanized and windrow means
- No tipping fee on waste transportation or handling
- 100% checks on no waste trespassing and littering with CCTV provisions at every collection points
- Rehabilitation of rag-pickers, kabariwala & safai karmi and introducing them into main stream
- Workshop for Vehicles, Rickshaw & MS Bins for immediate repair attention
- User Fees to recover the O&M cost & provide other supportive services required under the Project
- User fee recovery mechanism partially from Property tax, Per unit electricity charges and environmental cess etc. through
- Extensive IEC & Capacity Building activities taken as an important tool
- 24x7Hrs helpline services (Outsourced for effective communication)
- Effective Data Management and Reporting System (online)
- O&M Cost for 3 years has also been considered in Project Cost to assure sustainability to Project
- New concept of minimum wages with running wages introduced to motivate the staff and increase their output with zero error operation
- Key Performance Indicators for primary and secondary operation
- Policy interventions for effective management
- Community involvement is encouraged through RWA
- Independent Engineers provision is placed to ensure effective compliance at ULB and Concessionaire end, post award of contract, whose cost shall be met by ULB

#### Snapshot of Phase 1 and Phase 2 of the Project:

#### Phase 1 (Collection & Transportation)

- Focus on Collection and Transportation of municipal solid waste
- Upfront Buying of the collection and transportation equipment by Asansol Municipal Corporation to be handed over to Concessioner for implementation
- Financial Model
  - Capital Cost of Rs. 34.40 Crore
  - SBM Central Share Rs. 11.79 Crore
  - Loan from HUDCO Rs. 21.90 Crore
  - MPLAD fund Rs. 0.72 Lakh

#### Phase 2 (Processing & Disposal)

- Focus on 100% Scientific Processing and Disposal of Municipal Solid Waste
- Composting, RDF based processing with Zero Waste to Landfill
- No tipping fee on waste transportation or handling
- Financial Model
  - Capital Cost Rs. 36.93 Crore
  - SBM Central Share Rs. 12.93 Crore
  - PPP Contribution Rs. 24.00 Crore

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#### 2.Introduction

Municipal Solid Waste management within the Municipal limit is the sole responsibility of every Urban Local Body, as per the 12th Schedule of the Constitution after 74th amendment to the Constitution of India. But there were no specific methodology for conducting MSW management; Govt. of India formulated MSW (management and Handling) Rules 2000. As per its provision Municipal Solid Waste Management comprises of primary and secondary collection of waste, segregation, transportation in closed vehicles, material recovery, waste processing and final disposal in a scientifically designed Landfill. Further, Honourable Supreme Court had mandated all ULB's to implement it by 2005. However because of lack of trained manpower, technical capability, paucity of funds etc. hardly 10% of ULBs have been able to achieve this.

The sector is constrained by the following factors:

- MSW services being perceived as a public good, ineffective without universal implementation.
- b. Low quality of service being provided despite high costs.
- c. Engagement of vast labour resources; however, the productivity of manpower is reportedly sub-optimal.
- d. Due to perception of management of MSW a free good, cost recovery is low and dependent on general revenues and transfers.
- e. The workforce comprises a significant proportion of women and economically weaker sections of society. Any restructuring of the existing activities would have a direct impact on their livelihood.
- f. The MSW function in most ULBs is overseen by members of the medical fraternity (health officers). However, collection and transport activities need an engineering focus.
- g. Most ULBs do not have the required treatment and disposal facilities for MSW and the skills for managing such tasks are not adequate.
- h. No accurate estimates of MSW quantities are prepared. Waste quantification and waste characterization studies are also not carried out prior to design of MSW systems.

West Bengal has experienced rapid urbanization in the past decade, with approximately 28% of the state's population living in urban areas. According to Census 2011, while the national average of decadal growth in urban population was 31.16 percent, it has been found to be 31.89 percent, slightly higher than the national average. An important fallout of rapid urbanization in the state is the corresponding increase in waste generation and therefore failure to ensure proper MSWM

Urban local bodies have the mandate to provide efficient, scientific municipal solid waste management (MSWM) services in terms of statutory guidelines. Streamlining MSWM practices in urban areas is of immediate relevance given the growing importance of the cities as drivers of the economy, especially in the context of the Swachh Bharat Mission (SBM) and Atal Mission for Rejuvenation and Urban Transformation (AMRUT). With an objective to improve the solid waste management situation, the Government of India is implementing the SBM in all 4041 ULBs across the country, over a 5 year period. SBM seeks to improve the levels of overall sanitation and achieve 100% Solid Waste Management across all ULBs. ULBs are eligible for central government incentive for the SWM projects in the form of a maximum of 20% Grant/ VGF for each project. The remaining funds have to be generated from state funding and external funding support, as advised in the SBM Mission Guidelines (refer para 2.6.)

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Asansol urban area has been identified as a city eligible under SBM. As a prerequisite for obtaining funding for the scheme, a Detailed Project Report (DPR) has to be prepared, emanating from the needs identified in the City Sanitation Plan, and approved by the State High Power Committee. The vision for SWM as proposed is:

"To put in place an effective solid waste management system aimed at minimizing manual handling, 100% collection, transportation and processing of the waste, recycling of the waste and conservation of the environment and, compliance with Swachh Bharat Mission Guidelines and other regulatory stipulations."

The preparation of an integrated MSW strategy, implementation plan for collection and transportation and the development of the treatment and landfill facilities are in line with the proposed vision, which seeks to achieve 100% solid waste management as per the Swachh Bharat Mission and other SWM regulations. The risk of pollution and contamination caused by open dump yards (which are known to cause most damage to the environment) is mitigated by the development of treatment facilities and engineered sanitary landfills. By designing them in accordance with MSW Rules, statutory compliance is also achieved.

Development of projects in Asansol urban area include preparation of strategy and implementation plans for SWM collection and transportation, and assistance in the development of treatment and disposal facilities for Asansol urban area comprising Asansol Municipal Corporation (AMC), Kulti Municipality, Raniganj Municipality and Jamuria Municipality (amalgamated with AMC in October 2015).

This report presents the implementation plan for the proposed MSW management strategy for collection, transportation, treatment and disposal. The strategy has been prepared based on primary surveys, site visits and discussions with various stakeholders. This report sets also out the project details and the implementation structure and an assessment of the financial sustainability of the project. The project has been proposed in two stages:

- Phase 1: Collection and Transportation
- · Phase 2: Processing and Disposal

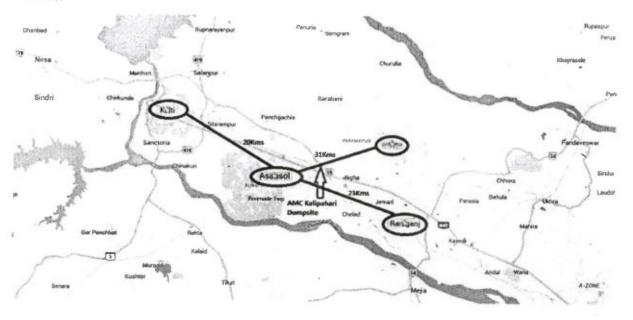
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Currently, AMC shall be taking up phase 1 which has an implementation time schedule of 6 months from the date of finalization of the bidding process.

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Asansol is one of the largest cities in the state of West Bengal outside Kolkata Metropolitan area. It was established as a Municipal Corporation on 31st January 1994 however in October 2015 three municipalities were amalgamated with AMC namely, Kulti Municipality, Raniganj Municipality and Jamuria Municipality. The urban area of Asansol is now covering 326.48 square kilometers has a population of 11, 56,387 as per census 2011 and has been divided into 106 wards.



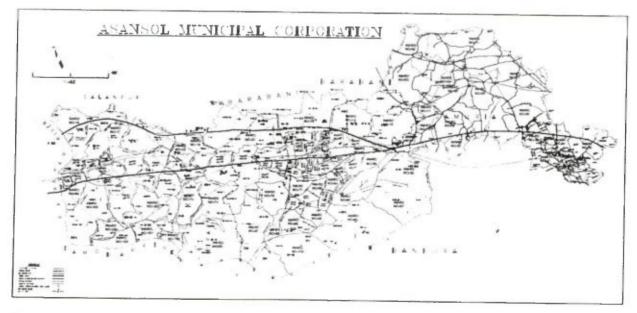


Figure 1: Map of area under Asansol Municipal Corporation

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	Overview of AMC
Year of Establishment	1885 and declared Municipal Corporation in 1994
ULB coverage area	326.48 Km <sup>2</sup>
Total No. of Wards	106
Covering Area	Covering 4 municipalities i.e., Kulti, Asansol, Jamuria and Raniganj
ULB Population Census 2011	1156387
Population Density	3541.98 per Km <sup>2</sup>
Average Floating Population	231277
Expected Population 2021	1507703

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## 4. Current Status and Practices of MSWM in AMC

## 4.1. Waste Generation

The various sources of MSW generation include domestic households, commercial establishments, hotels, markets, marriage halls and nursing homes. The details of the current and expected waste generation are:

Current Waste Generation	624 MTPD @450 grams / capita/ day
Expected Waste Generation by Year 2021	679 MTPD
C&D Waste	125 MTPD

#### **Types of Waste Generation:**

- a. Domestic Households: The waste generated in domestic households forms the major components of the total MSW generated in ULBs. The waste varies based on socio-economic conditions, with the developed residential areas have less waste compared to low-income residential areas where wood or charcoal is used as fuel.
- b. Commercial Establishments: The commercial establishments in the city range from general shops, petty shops, bakeries and juice shops, electrical and electronics and wholesale and retail stores.
- c. Healthcare Establishments: Hospitals, Nursing Homes and other healthcare establishments also contribute majorly to the solid waste generation at AMC. The type of waste generated includes unused medicines, saline bottles, medicine covers, some of which are nondegradable.
- d. Institutions: This category consists of offices and schools (residential and non-residential)
- e. **Hotels, Restaurants and Lodgings**: These establishments generate both degradable and non-degradable waste.

Particular	Status
No. of Households	224570
No. of Commercial Units (Urban)	2246
No. of Healthcare Establishments (Hospitals/ Nursing Homes)	450
No. of Institutions/ Schools/ Offices	225
No. of Industries/ Factories, etc.	23

The summary of MSW generated in Asansol, characterized as per the type of waste, is provided below:

Waste Characterization	<b>建制装卸货</b>	Com	position	
Organic / compostable	MTPD	Approx.	40.02%	250
Recyclable	MTPD	Approx.	8.04%	50
Inerts (Basically in commingled form)	MTPD	Approx.	44.38%	277
Plastics	MTPD	Approx.	7.56%	47

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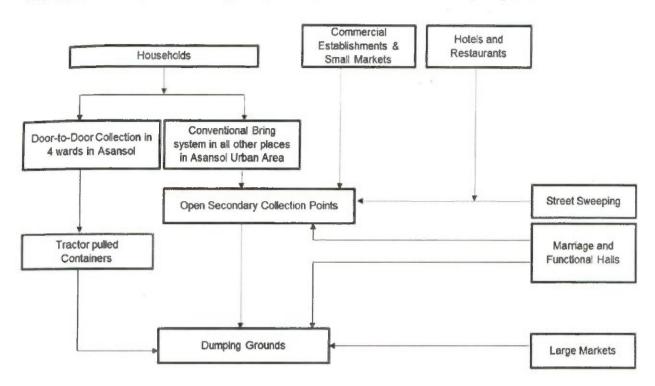
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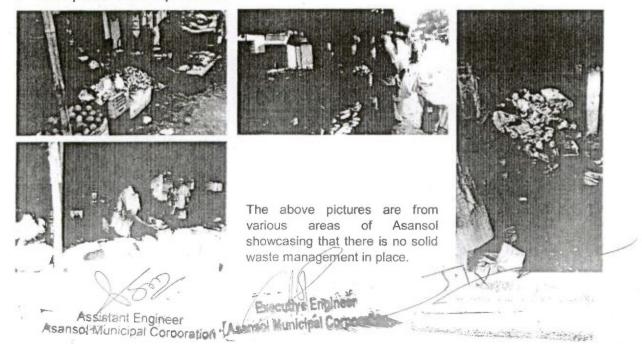
## 4.2. Overview of MSWM Practices

1.

The current SWM practices being adopted are presented in the following diagram:



- a. No door-to-door collection in Asansol Municipal Corporation area, waste is collected through the traditional "bring" systems where individual residents bring and deposit MSW in the nearest bins
- b. Waste collection carried out by tractor-pulled containers which poses health risk as well as environmental pollution
- c. Only 48% of 624 MTD waste is collected
- d. MSW collected from households, commercial establishments, small markets, hotels, etc. is deposited to at secondary collection points from where it is transported by these trucks directly to the dumping sites
- e. No scientific storage and transportation infrastructure
- f. Zero percent waste processed



#### Observations on Collection and Transportation Practices:

- a. There are no organised efforts to segregate the waste at source. Drain silt and street sweepings get mixed with the household waste
- There is usually a pile up on Mondays as there are no primary collection and street sweeping activities on Sundays
- c. Logistics management, including beat allocation, is not based on a scientific analysis of the requirements resulting in non-optimal street sweeping practices
- d. Sanitary workers have not been provided with proper health and safety gear. Manual handling of MSW would result in health hazards to workers due to the presence of broken glass and needles and exposure to germs
- e. Existing infrastructure is not sufficient enough to handle the current waste generation and would need to be suitably designed and procured to ensure optimal utilization of the same.
- f. Community engagement is required to explain the benefits of waste segregation at source and other hygienic waste practices
- g. Capacity Building of municipal staff is required to handle MSW in a scientific and hygienic way



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## 5. Integrated SWM Strategy for Asansol Urban Area

This section presents the proposed strategy and indicative action plans of the Integrated SWM strategy for Asansol.

#### 5.1. Overview

The project will cover four municipalities i.e. Kulti, Asansol, Jamuria and Raniganj comprising a total of 106 wards over 326.48 square kilometers area. The project will directly impact more than 11 Lakh people having an estimated waste generation of 624 MTPD.

The project involves setting up an Integrated Solid Waste Management (ISWM) for door-to-door collection of solid waste from all 4 municipalities, transportation and treatment & processing, in accordance with the 'MSW (Management and Handling) Rules, 2000. This will be instrumental in improving the existing SWM system and achieving service standards as per the service level benchmarks introduced by MoUD.

The key features of the proposed plan are:

- Improvement in waste collecting efficiency at primary and secondary collection stages
- Procurement of proper vehicles and equipment
- Introduction of personal protection Equipment to be used by workers engaged in MSW Management service;
- Establishment of waste treatment and processing facilities
- Facilitating segregation at source by way of increasing awareness to city residents;
- Rehabilitation and mainstreaming of rag pickers and sanitary workers
- · Extensive capacity building of municipal staff
- Strict compliance to MSW Rule 2000
- Data Management and Reporting System
- · Proper monitoring mechanisms







Stakeholder Consultations carried out in various Municipalities in AMC to discuss issues and solutions around solid waste management in the area.

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#### Phase 1: Collection and Transportation

- a. The proposed strategy for Asansol included introducing 100% door-to-door collection in all municipal wards
- b. Daily collection of waste from primary and secondary points with GPS based vehicle monitoring
- c. Weighment provisions for weighing collected waste quantity either Transfer Station or at the processing facility
- d. 100% checks on no waste trespassing and littering with CCTV provisions at every collection point
- e. Rehabilitation of Rag pickers:

Around 45 rag pickers are involved in segregating valuable articles from the Kalipahari dumping site at NH-2. The dumping yard is acting as major livelihood for these rag pickers. Once this project commence its operation, rag pickers would lose their revenue source. In order to protect, their livelihood, it is proposed to get involve all the rag picker in waste segregation conveyor system. It would support their life sustainability.

- f. User fees to recover the O&M cost through hand held GPS based billing machine
- g. Setting Transfer Stations to optimize the transportation cost of the waste
- h. Covered vehicles for hygiene picks and transfer of wastes

#### Phase 2: Processing and Disposal

- a. Composting through mechanized and windrow means
- b. No tipping fee on waste transportation or handling
- Zero Waste to Landfill, though landfill provision is made (Incentives on 100% Processing of Daily Waste)
- d. Incentive on 100% processing of daily waste with zero waste to landfill
- e. RDF option available with Cement Industries vicinity
- f. C&D option available, to handle entire construction debris & material with ULB's buy back option
- g. MRF option available at facility

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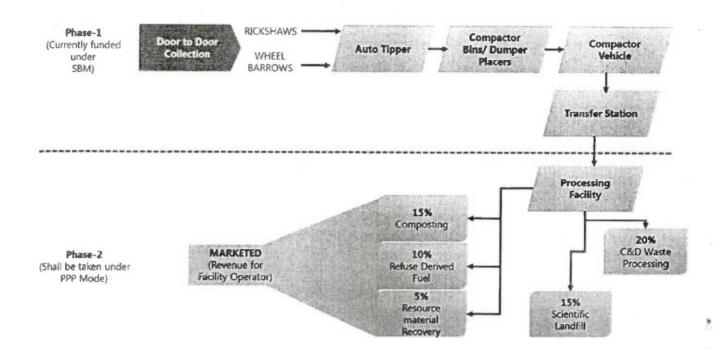
## IEC, Capacity Building and Other Important Features (will be implemented during both phases)

- a. Extensive IEC & Capacity Building activities taken as an important tool
- b. Workshop for Vehicles, Rickshaw & MS Bins for immediate repair attention
- c. 24x7 Hours helpline services (Outsourced for effective communication)
- d. Grievances Redressal Cell liked with rapid wireless communication with the team
- e. Effective Data Management and Reporting System (online)
- f. New concept of minimum wages with running wages introduced to motivate the staff and focus on zero error operation
- g. Key Performance Indicators for primary and secondary operation
- h. Policy interventions for effective management
- i. Community involvement is encouraged through RWA
- Independent Engineers provision is placed to ensure effective compliance at ULB and Concessionaire end, post award of contract, whose cost shall be met by ULB

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A diagrammatic representation of the waste collection, transportation and treatment is provided below:



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## 5.2. Proposed Collection and Transportation Plan

As stated earlier, currently AMC shall be taking up phase 1 which has an implementation time schedule of 6 months from the date of finalization of the bidding process.

#### 5.2.1 Street Sweeping

- a. Roads would need to be categorized based on the density and workers allotted accordingly
- b. Beat allocation would need to be based on CPHEEO norms for solid waste management
- c. Street sweeping would be carried out based on container carts designed based on the road density and waste quantum
- d. Filled bins would be loaded onto auto-tippers which would empty the street sweeping into inorganic dumper bins transporting the same to the waste transfer stations

#### 5.2.2. Domestic Households

- a. 100% Door-to-door collection would be implemented in all municipal wards with emphasis on waste segregation through provision of Households Bins. The segregation would be implemented such that the treatment plant is operational to receive segregated waste.
- b. Categorization of the wards would need to be done based on demographics to finalize the type of vehicle to be used for primary collection. Auto tippers will be the primary option while Handcarts/ Wheel Barrow/ Rickshaw would be used where auto tippers cannot easily access the households.
- c. Waste collected in auto tippers and Handcarts/ Wheel Barrow/ Rickshaw would be transported to the compactor bins/ dumper placers.
- d. Subsequently, the compactor vehicle will transfer the waste from the compactor bins/ dumper placers to the Transfer Station, Materials Recovery Facility (MRF) might be established at the transfer stations.
- e. The collected MSW will be deposited to the designated processing plants.

#### 5.2.3. Markets

- a. Market waste, bring largely organic, would be collected by dumper bins located in each of the
- b. In smaller markets, sanitary workers would sweep waste into dumper bins.
- c. These dumper bins would be directly transported to the treatment plant.

#### 5.2.4. Commercial establishments

- a. MSW from these generators would be collected from sanitary workers after completion of street sweeping activity
- b. The waste, to be collected in bins, would be placed at street/ road corners to be picked up by auto tippers and transported to treatment facilities.

#### 5.2.5. Others

- a. Operators of marriage halls would be responsible to intimate AMC other ULB staff about the need for disposal of MSW. Function halls would need to communicate AMC in advance if dumper bins would be required during any functions/ exhibitions.
- b. It is proposed that AMC in consultation with RWAs and NGOs would prepare awareness campaigns for door-to-door collection and segregation. This would cover both citizens and sanitary workers.

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## 5.2.6. Activity Schedule

The proposed activity schedule is set out below:

特殊期間			AM						Mar.			PM								A	M		
Timings	6-7	7-8 8-9	9-10	10-11	11-12	12-1	1-2	2-3	3-4	4.5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-1	1-2	2-3	3-4	4.5	5-6
Primary Collection																							
Street Sweeping		dentiel, Ro tional Hig													nercial ( ely Popo								
Secondary Collection			R	osidentie	ili Importa	ent Area											c	ommerc	ial Are	-05			

The ward-wise asset requirement for primary and secondary operations is presented in **Annexure**1.

#### 5.2.7. Environment Management Cell

It is proposed to set up a separate to keep a close watch on the performance of the pollution control equipments, emissions from the sources and the quality of surrounding environment in accordance with the monitoring program. The department will include a safety cell for ensuring that safety measures are followed in the development of greenbelt and afforestation.

The team will consist of well qualified and experience personnel. To achieve the objectives of pollution control, it is essential not only to provide latest pollution control and monitoring systems but also provide trained manpower to operate and maintain such systems. So, the Environmental management department personnel will be provided with additional specialized training to operate and maintain the equipment to be deployed on the installation. All persons will be trained to deal with pollution emergencies also. General and preventive maintenance of pollution control system will be done by the General Maintenance Department. The manager will ordinate with the maintenance and production departments to achieve optimum efficiency of the control equipments and to maintain the quality of the environment.

Environmental cell is responsible for all the issues of environment. The cell will be responsible for following task:

- To implement the environmental management plan,
- To assure regulatory compliance with all relevant rules and regulations,
- To ensure regular operation and maintenance of pollution control devices,
- To minimize environmental impacts of operations as by strict adherence to the EMP,
- To initiate environmental monitoring as per approved schedule.
- Review and interpretation of monitored results and corrective measures in case.
- Maintain documentation of good environmental practices and applicable environmental laws as ready reference.
- Maintain environmental related records.
- Coordination with regulatory agencies, external consultants, monitoring laboratories.
- Maintain of log of public complaints and the action taken
- Maintenance of green belt;
- Environmental training & awareness.

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## 5.2.8. Local Administration Department

It is also proposed to have committee at Street Level and Ward Level with member like Street Level In charge and Ward Level In charge to ensure the complete collection of garbage on daily basis and to develop awareness on source segregation at house hold level.

#### 5.2.9. Environmental Monitoring

The "Environmental Management Plan" puts forward skeleton criteria for a construction and phase environmental management system. As mentioned, the Solid Waste (Management and Handling) rules, 2016 standards for environmental control have been used as a basis to monitor overall compliance.

It must be ensured that it adheres to the principles of Solid Waste (Management and Handling) rules, 2016. In general, it can be stated that compliance monitoring will be conducted through regular environmental inspections, audits, control feed-back mechanisms, document control and reviews to check if activities and operations are in compliance with proposed local standards or indicators proposed in this EIA.

### 5.3. Proposed Plan for Development of Treatment and Disposal **Facilities**

MSW rules prescribe that landfilling should be restricted to non-biodegradable, inert waste and other waste that are not suitable for recycling or for biological processing including residues and preprocessing rejects of waste processing facilities. MSW Rules also prescribe that landfilling of mixed waste should be avoided unless the same is found unsuitable for waste processing.

It is proposed to develop decentralized processing facilities in AMC to take care of the processing requirements for the MSW generated in all 4 municipalities. Although landfill provision is made, incentives on 100% processing of daily waste will be implemented to achieve zero waste to landfill.

The treatment facilities proposed are:

Compo	osting	Refuse-derived Fuel	Construction & Debris Recycling	Materials Recovery Facility
Mechanized	Windrow		(4)	

Processed Waste Output		Result	Rate/ MT (Rs)	Qty (in MTPM)
Organic Compost	MTPD	15%		94
RDF	MTPD	12%		75
Scrap	MTPD	3%		19
Recyclable Material			Ref. CPHEEO Manual Page#164; 8.10	
(Glass/ Metal/ Plastic)	MTPD	2%	(Guidelines for sorting for Material Recovery)	12

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Processed Waste Output		Result	Rate/ MT (Rs)	Qty (in MTPM)
C'n"D Waste (Eco-			Ref. CPHEEO Manual Page#60; 4.5/ 4.6/ 4.7/	aphonesis and the same of the State
bricks)	MTPD	3%	4.8 Recycling & Reuse of C&D waste	19
Inert (Quantity to Landfill)	MTPD	20%	Ref. CPHEEO Manual Page#376; 17.6.21 (Landfill Waste Acceptance Criteria)	125
Moisture Content Weight Loss	MTPD	41%	Ref. CPHEEO Manual Page#247; 14.4.3	256

#### 5.4. Mode for Implementation

#### A. Collection and Transportation

Community education and participation would be critical for managing MSW scientifically. The proposed strategy requires additional manpower only at the primary collection stage, while infrastructure/ equipment is required for all components.

It is proposed that primary collection responsibility should be taken up in collaboration with RWAs and NGOs. The secondary collection and transportation would be carried out by existing AMC staff. There are areas in the city which do not have RWAs currently and which would include slum pockets and low-income group areas. It may be necessary for AMC to provide direct primary collection services in these areas or engage a private contractor for the same. It may also be possible to redeploy some of the existing staff of AMC currently engaged in street sweeping to perform primary collection activities.

The overall staff requirements are provided in **Annexure 2**.

The primary objective is to achieve 100 percent door-to-door collection followed by segregated waste collection for residential households as well as other bulk generators like hotels, hospitals, markets, etc.

The financial details are provided in Annexure 3.

#### B. Treatment and Disposal Facilities

The implementation structure would address the mode of implementation, roles and responsibilities of the stakeholders and the way ahead.

The evaluation of options for implementation delivery is detailed below:

Evaluation Parameter	Option 1	Option 2
Construction Risk	Taken up by AMC. Risk of time and cost over-run	Passed on to the private player
M&O	No requisite in-house skills at present AMC to bear the additional expenditure on the equipment and recruitment and training of the personnel	capabilities they are better equipped

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Financing	Would have to be mobilized by AMC against state government guarantees	Mobilized by the private player
Environment Risk	AMC to bear risk	Total responsibility passed on to private player

## The proposed implementation structure for AMC's ISWM is:

- Primary and Secondary Operation through a private vendor
- Processing and Disposal through a private vendor
- Operation and Maintenance outsourced under Integrated Approach on BOOT basis

Engineered landfills and treatment facilities require considerable skill and investment in design, engineering and financing, construction, operations and maintenance and would need to be covered in a single contract in order to minimize potential adverse environmental impacts. A concession structure would be the most appropriate implementation structure under which AMC would retain ownership of the treatment and landfill, with the private investor having the responsibility to develop, operate and maintain the treatment and landfill site on a long term basis.

It is proposed that the project be implemented through private sector participation on Build, Own, Operate and Transfer (BOOT) basis for the following reasons:

- a. The mobilization of finances would be the responsibility of the ULB as well as private developer for the initial capex. The proposed funding pattern is detailed in **Annexure 3**.
- b. The risk of meeting the MSWM regulations during the construction and operational phase would be passed on to the private developer
- c. AMC would lay down the technical specifications for the construction and subsequent operations and maintenance of the project, which would have to be adhered to by the private developer. In the event that the private developer fails to meet the technical specifications laid down by AMC or meet the MSWM regulations, AMC would have the option of substituting the private developer.
- d. The risk of time-bound completion of the project would be passed on to the private developer. Since the revenue streams from the project would commence only after completion of the project, it would be in the interest of the private developer to complete the project as early as possible. AMC may also stipulate a penalty to be paid by the private developer in case of delay in implementation of the project.
- e. The risk of over-run in construction cost and operational expenses would be passed on to the private developer. Since the private developer is responsible for the implementation of the project, any increase in cost of the project would also be borne by him.
- f. AMC would avoid additional expenses on account of additional recruitment and/ or specialized training of personnel for the operations of the project. Since at present AMC does not possess the requisite skills for implementation and operations of a treatment/ landfill project, it would have to incur additional expenses either in recruiting qualified and experienced personnel or in training of the existing staff. However, if the project is implemented through private participation, the private developer would employ the required personnel.

Tipping Fee: No tipping fee would be levied on waste transportation or handling.

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## Indicative scope of work of developer

- a. Design the project facilities as per standards set out
- b. Engineer, procure, finance and construct the facilities
- c Receive raw MSW at treatment facilities
- d. Inspect the supplied MSW and reject biomedical/hazardous waste
- e. Segregate recyclables, organic and inorganic waste
- f. Treat organic waste
- g. Create strategy for sale of compost in consultation with AMC
- h. Carry out relevant tests to ensure MSW is fully utilized
- i. Carry out 100% processing of waste
- i. Achieve zero waste to landfill
- k. Provide training to ULB employees on the project aspects
- Undertake joint monitoring and inspections with ULB
- m. Handover the project facilities at the end of the concession period.

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## 5.5. Technical Design

## 5.5.1. Collection and Transportation

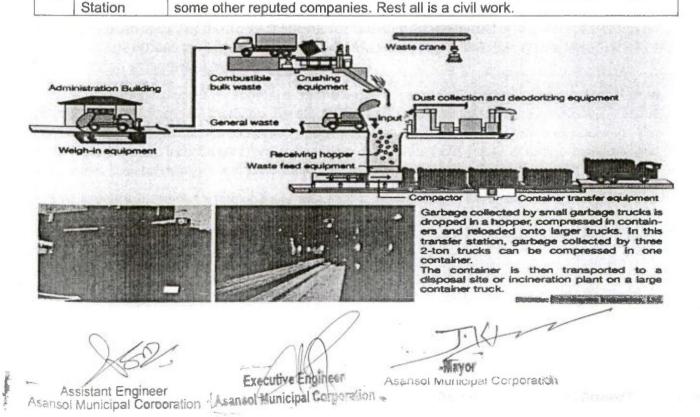
Technical specifications for infrastructure and equipment for collection and transportation are set out as below:

S. No.	Particular	Type/ Make	Capacity/ Specification	Compliance Meeting
1)	Protective Safety Gears	Any	Chest Apron with night reflector and having AMC logo with Service Identity at Back, Gum boots/ puncture proof boots & gloves with helmet and mask	Ensuring safety norms and identity
2)	Rickshaw	Any	Strong double bar chassis with 6containers capacity 50Ltrs with handle. Equipped with Tool box, first aid box and waste collection tools storage provision	Door to Door collection and emptying litter bins
3)	Wheel Barrow	Any	MS body, with tube rubber wheels long handle bars with catcher and emergency hand break provision	Door to Door collection from narrow lanes and lifting of drain silts and littered garbage
4)	Auto Tippers	Tata/ Mahind ra	With hydraulic tipping system and waste carrying capacity approx.2-3MT, having provision for tool box, spare tyre, waste collection tools and first aid box	Rapid waste collection in synchronized movement with wheel barrow, rickshaw and compactor bins/ vehicles for waste collection and transportation
5)	Dumper Placer	The Vehicles details can be referred from Swachh Bharat Mission (Urban) Website https://swachhbharaturban.gov.in		
6)	Compactor	Please visit the above website https://swachhbharaturban.gov.in		
7)	JCB	JCB with catcher		
8)	Bins	1.1m3, 3.5m3 (dumper placer bin) & 8.0m3 compaction bin for tippers and transfer stations		

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9)	Workshop	Should have the following tools & equipments: Repairing Sheds (machinery shed/ electric/ hydraulic/ tyre mtc), mechanic room, store rooms, driver room, rest room, vehicle shed, security office, parking shed and other necessary infrastructure and back up support facility like administration wing/ time recorder office/ security office/ data maintenance office, fuel filling station etc	
		Washing/ servicing ramp with water tank of 10000ltrs. Capacity/ necessary structure & high pressure water jet machine	
		Maintenance Equipment:	
		Welding Machine 3 Phase	
		Vehicle Washing Machine (nozzle type)	
		Battery Charger Machine (10 Batteries)	
		Battery testing and other auto electric testing machine/ equipment Msc. Smithy shop machine	
		Lathe/ Radial Drill/ Hexo cutter Machine	
		Unit Handling Cranes	
	70	Gear Box, Differential mounting trolley 4 to 5Nos	
		Overhead crane 2/3 tons capacity with structure	
		Engine cleaning machine	
		Other misc. handy machines/ tools like drill, grinder, cuter, riveter, bench vice etc	
		Air compressor 3 Nos (1 of approx. 5HP for tyre room/ 1 of 2HP for hydraulic repair room/ 1 of 2HP for schedule checking/ paint facility) with required attachment of Air pr./ spray/ greasing/ gauge etc Tube vulcanizing machine and related facilities	
		Automatic tyre changer machine	
		Smoke testing machine (diesel)	
		Trolley jacks hydraulic operated for vehicle lifting 10/ 5/ 2tons capacity	
10)	Transfer	The mechanism is provided as under: The compaction unit can be of Hyva or	



### 5.5.2. Treatment and Disposal

### **Technology Options for Treatment of Municipal Solid Waste**

The rapid urbanization and change in life style has increased the waste load and thereby pollution loads on the urban environment to unmanageable and alarming proportions. The existing waste dumping sites are full beyond capacity and under unsanitary conditions leading to pollution of water sources, proliferation of vectors of communicable diseases, foul smell and odors, release of toxic metabolites, unaesthetic ambiance and eye sore etc. It is difficult to get new dumping yards and open dumping is prohibited by law.

This is particularly true for Asansol, with constraints of land availability, dense population, environmental fragility and expectation for management of solid wastes relies on an overly centralized approach. In earlier days, municipal wastes, comprised mainly of biodegradable matter, did not create much problem to the community as the quantity of wastes generated was either recycled/reused directly as manure or was within the assimilative capacity of the local environment.

The biodegradable waste of the urban centers was accepted by the suburban rural areas for composting in the agricultural fields. With increasing content of plastics and non-biodegradable packaging materials, municipal wastes became increasingly unacceptable to cultivators. As a result, the excessive accumulation of solid wastes in the urban environment poses serious threat. Similar scenario is now emerging in rural areas as well due to the urban-rural continuum, typical to Asansol. Now, dealing with waste is a major challenge.

There are two aspects to the challenge, the social engineering and technology application. The social engineering deals with the ethics and efficiency for maintaining environment. In the case of waste management, it is, broadly, the practice of reduce, reuse and recover. The technology application deals with the improvement of assimilative capacity as well as supportive capacity of environment. This paper deals with the second aspects and therefore, review the waste management technology, in general, and highlight the technology options suitable for the State, in particular. Considering the method of Sanitary Landfill as a systematic disposal technique and not a treatment technology, it is not dealt in this paper.

### Salient Features of Technology Options for MSW Management

The technology options available for processing the Municipal Solid Waste (MSW) are based on either bio conversion or thermal conversion.

The bio-conversion process is applicable to the organic fraction of wastes, to form compost or to generate biogas such as methane (waste to energy) and residual sludge (manure). Various technologies are available for composting such as aerobic, anaerobic and vermi-composting. The thermal conversion technologies are incineration with or without heat recovery, pyrolysis and gasification, plasma pyrolysis and pelletization or production of Refuse Derived Fuel (RDF).

A brief account of these technologies is essential for evaluating their efficiency, applicability and impacts.

### a. Composting

It is the aerobic decomposition of biodegradable organic matter in a warm, moist environment by the action of bacteria, yeasts, fungi and other organisms. It allows for the development of an end product that is biologically stable and free of viable pathogens and plant seeds and can be applied to land beneficially. Composting involves three basic steps, that of preprocessing (size reduction, nutrient

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addition etc), decomposition and stabilization of organic material and post-processing (grinding, screening, etc). The decomposition and stabilization phase happens when the bacteria and other organisms act on organic fraction of MSW that essentially consists of proteins, amino acids, lipids, carbohydrates, cellulose, lignin and ash in presence of oxygen. The reaction converts the organic matter, in its entirety, to compost, new cells, CO2, water, NO3, SO4 and heat.

The commonly used composting processes are windrow, aerated static pile and in-vessel methods. In the aerated static pile process, oxygen is provided to the piled up MSW by mechanical aeration system. In the in-vessel systems, the composting material is mixed mechanically during the processing to minimize odors and processing time.

The design and operational conditions of aerobic composting process is given in table below:

### Design and Operational conditions of Aerobic Composting Process

S. No	. Aspects	Preferable standards and specifications
1	MSW characteristics	Sorted organic fraction of MSW, preferable with same rate of
		decomposition
2	MSW Particle size	Between 25 – 75 mm for optimum results
3	C/N Ratio	Between 25 – 50 initially. Release of ammonia and impeding of biological activity at lower ratios. Nitrogen as a limiting nutrient at higher ratios
4	Blending & Seeding	Addition of partially decomposed matter (1-5% by weight) reduces composting time.
5	Moisture content	55% (optimum)
5	Windrow size	3m length, 2m width and 1.5m height (optimum)
6	Mixing/turning	Every four or five days, until the temperature drops from about
		$66-60^{\rm O}{\rm C}$ to about $38^{\rm O}{\rm C}$ or less. Alternate days under typical operating conditions
7	Temperature	50-55 <sup>©</sup> C for first few days and 55-60 <sup>©</sup> C for the reminder composting period. Biological activity reduces significantly at higher temperature (>66 <sup>©</sup> C)
8	Pathogen control	Maintenance of temperature between 60-70oC for 24 hours
9	Air requirement	Air with at least 50% of initial oxygen concentration to reach all parts of composting material
10	pH control	7 – 7.5 (optimum). Not above 8.5 to minimize nitrogen loss in the form of ammonia gas
11	Inoculums	Not desirable, except in special cases
12	Degree of decomposition	Determine by COD test or from Respiratory Quotient (RQ).
13	Area requirement	~25 m <sup>2</sup> for 1 ton of MSW (only for windrow formation for 21 days composting and maturity yard for 30 days stabilization). Area for machinery, packing and storage extra
14	Post treatment care	Facility for effluent (leachate) recycling and treatment and sanitary landfill of rejects (inert materials, sludge from ETP)
15	Nutrient recovery	2-4 kg N/ton; 1-2 kg P/ton; 1-2 kg K/ton
16	Product recovery	18-25% of waste input
17	Residuals for disposal	2-20% sieving overflow (plastic, metal, glass, stones, non-composted matter

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An effective compost pile should be as damp as a well wrung-out sponge for providing the moisture that all life requires. Microorganisms vary by their ideal temperature and the heat they generate as they digest. Mesophilic bacteria survive best at temperatures of 20 to 44 °C and thermophilic (heat-surviving) bacteria grow optimally at around 55°C. The latter leads to fastest decomposition, since metabolic processes proceed more rapidly under higher temperatures. Elevated temperature is also preferred since it causes the most rapid pathogen reduction, and is more destructive of weed seeds. The pile does not heat up if the heap is too wet, limiting the oxygen which bacteria require, too dry for the bacteria to survive and reproduce or too insufficient in protein (nitrogen-rich material).

### b. Vermi composting

It is the end-product of the breakdown of organic matter by some species of earthworm. Vermi compost is a nutrient-rich, natural fertilizer and soil conditioner. The process of producing vermi compost is called vermi composting. The earthworm species most often used are Eudrillus eugineae, Eisenia foetida or Lumbricus rubellus. Small scale vermi composting is done in bins of varying size and style and three different types of practices, such as non-continuous, continuous vertical flow and continuous horizontal flow, are adopted. The methods for large scale vermi composting are windrow and raised bed or flow through systems. Flow-through systems are well suited to indoor facilities, making them the preferred choice for operations in colder climates. Kitchen waste, except oily and spicy items are suitable for worms. But too much kitchen waste leads to purification before the worms can process it and becomes harmful to the worms. Similarly, material sprayed with pesticides, highwater-content materials like watermelon, woody part of garden waste etc are hindrance to the process. The worms digest proteins and fats in meat scraps, but these materials attract scavengers. Regular removal of composted material, adding holes to the bin, or using a continuous-flow bin etc. improve oxygen supply to worms. Insufficient oxygen leads to anaerobic reactions, producing strong odor and creating toxic environment for the worms. The design and operational conditions of vermicomposting process is given in Table below:

Design and Operational conditions of Vermi Composting Process

S.No	o. Aspects	Preferable standards and specifications
1	MSW characteristics	Any organic waste which are not appreciably oily, spicy, salty or hard and that do not have excessive acidity and alkalinity
2	MSW Particle size	Between 25 – 50 mm for optimum results
3	Worms	Eudrillus eugineae (50-100 no per kg of organic waste)
4	C/N Ratio	30:1 (preferred). Brown matter (wood products, saw dust, paper etc) is rich in carbon and green matter (food scraps, leaves etc) in nitrogen. Overabundance of greens generates ammonia. Correction by application of brown matter.
5 6	pH Temperature	Slightly alkaline state preferable. Correction by adding small dose of calcium carbonate $20-30^{\circ}\mathrm{C}$
7	Moisture content	40-55% preferable; cover the tank with wet sack and sprinkle water as required
8	Base layer	Coconut husk of one or two layers with cow-dung powder (~30 kg for 4m x 1m x 0.5m size tank)

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9	Placing MSW	Waste layer thickness in the tank to be less than 15cm at a time; introduce fresh waste at consecutive portion of the tank on successive days
10	Blending	Sprinkle cow-dung powder along with waste
11	Aeration	Regular removal of the composted material, adding holes to the bin, or using a continuous-flow bin.
12	Physical protection	Wire mesh protection from mouse, ants and other pests; avoid exposure to direct sun light or rainfall.
13	Leachate collection	500 litre leachate collection tank for 250 kg/day plant
14		Tank size of 4m x 1m x 0.5m for waste input of 10kg/day of semi decomposed waste

### c. Biomethanation/ Bio-waste Derived Fuel

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It is a process based on anaerobic digestion of organic matter in which microorganisms break down biodegradable material in the absence of oxygen. The process is widely used to treat wastewater sludge and organic wastes because it provides volume and mass reduction of the input material. It produces methane and carbon dioxide rich biogas suitable for energy production and hence, is a renewable energy source. The nutrient-rich solids left after digestion can be used as a fertilizer. The digestion process begins with bacterial hydrolysis of the input materials in order to break down insoluble organic polymers such as carbohydrates and make them available for other bacteria. Acidogenic bacteria then convert the sugars and amino acids into carbon dioxide, hydrogen, ammonia, and organic acids. Further, the acetogenic bacteria convert the resultant organic acids into acetic acid, along with additional ammonia, hydrogen, and carbon dioxide.

Finally, the methanogenic bacteria convert these products to methane and carbon dioxide. During the decay process, electron acceptors (such as oxygen, ferric iron, sulfate, nitrate, and manganese) become depleted, while hydrogen (H2) and carbon dioxide accumulate. Light organics produced by fermentation also accumulate. During advanced stages of organic decay, all electron acceptors become depleted except carbon dioxide. Carbon dioxide is a product of most catabolic processes, so it is not depleted like other potential electron acceptors.

Methanogenesis occurs in the guts of humans and other animals, especially ruminants, during which the useful products are absorbed by the gut, but the methane is released from the animal mainly by belching (eructation). A cow emits around 600 litre of methane per day. The control of digestion temperature, pH, and loading rates is crucial to obtain efficient breakdown of the material in a digester, otherwise leading to process failure.

The design and operational conditions of anaerobic composting process is given in Table below:

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# Design and Operational conditions of Anaerobic Composting Process

S.No	Aspects	Preferable standards and specifications
1	MSW characteristics	Sorted organic fraction only; Higher the putrescibility, better is the gas yield; Fibrous organic matter is undesirable as the anaerobic microorganisms do not break down woody molecules such as ligning
2	MSW Particle size	Shredded, minced and pulped particles increase the surface area for microbes to act and increase the speed of digestion.
3	C/N Ratio	25-30 (preferable)
4	Seeding	High gestation period is typical of anaerobic bacteria, hence seeding the digesters with sewage sludge or cattle slurry reduces reaction time and improves efficiency.
5	Moisture content	>50%; Implications on feed, gas production, system type, system efficiency
5	Process environment	Absence of gaseous oxygen; anaerobes access oxygen from sources other than surrounding air, such as organic material.
6	Mixing/turning	Every four or five days, until the temperature drops from about 66 – 60 C to about 38 C or less. Alternate days under typical operating conditions
7	Temperature	Mesophilic bacteria act optimally around 37°-41°C or at ambien temperatures between 20°-45°C. Thermophilic bacteria act optimally around 50°-52° and at elevated temperatures up to 70°C Mesophiles are more tolerant to changes in environmental conditions and hence more stable, but thermophiles act faster.
8	Solids content	High-solids with a TSS concentration greater than ~20% or Low-solids with a TSS concentration less than ~15%.
9	pH control	Acidogenic bacteria through the production of acids reduce the phof the tank. Methanogenic bacteria operates in a stable pH range and temperature
10	Digestion system stage	Single-stage system enables all the biological reactions in a single sealed reactor, hence different species will be in direct competition with each other.
11	Residence time	For single-stage thermophilic digester, the residence time is around 14 days. For two-stage mesophilic digester, it varies between 15 and 40 days.
12	Gas cleaning	Removal of hydrogen sulphide by scrubbing of biogas or by adding ferric chloride FeCl3 to the digestion tanks
13	Dewatered digested management	Aerobic composting for materials containing lignin and maturation for breaking down the ammonia into nitrates
14	Effluent water	Oxidation based treatment to bring down the elevated BOD and COD and curb the pollution potential
-	+	Determine by COD test or from Respiratory Quotient (RQ).

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13	Area requirement	~25 m <sup>2</sup> for 1 tonne of MSW (only for windrow formation for 21 days composting and maturity yard for 30 days stabilization). Area for machinery, packing and storage extra
14	Post treatment care	Facility for effluent (leachate) recycling and treatment and sanitary landfill of rejects (inert materials, sludge from ETP)
15	Nutrient recovery	4.0 -4.5 kg N per ton; 0.5 - 1 kg P per ton; 2.5 - 3 kg K pr ton
16	Product recovery	Biogas; 30% fibres and 50-65% fluids

### d. Incineration

The incineration of MSW essentially involves combustion of waste leading to volume reduction and recovery of heat to produce steam that in turn produces power through steam turbines. Basically, it is a furnace for burning waste and converts MSW into ash, gaseous and particulate emissions and heat energy. The efficiency of the technology is linked to the waste characteristics and their properties such as moisture content and calorific values. When the waste is dry, it may not need any auxiliary fuel except for start-up but when it is rich in inert and moisture content, supplementary fuel may be needed to sustain combustion, adversely affecting net energy recovery. The combustion process involves essentially, drying, volatilization, and ignition and desirably, elimination of odors, and combustion of unburned furnace gases and carbon suspended in the gases. It requires high temperature of the order of 800-1000o C and sufficient air and mixing of gas stream. The minimum temperature for burning carbonaceous wastes to avoid release of smoke and prevent emissions of dioxins and furans is 850o C. In order to ensure proper breakdown of organic toxins, this temperature should be maintained at least for 2 minutes. For steam generation and energy recovery, the combustion temperature should be 1400o C. This will also ensure degradation of all organic compounds. Depending on the nature of wastes and the operating characteristics of combustion reactor, the gaseous products derived from the combustion of MSW may include carbon dioxide (CO2), water (H2O, flue gas), oxygen (O2), nitrogen oxides (NOx), sulphur dioxide (SO2) and small amounts of hydrogen chloride, mercury, lead, arsenic, cadmium, dioxins and furans, and organic compounds. The combustion residues include bottom ash, fly ash and non-combusted organic and inorganic materials. Modern incinerators include pollution mitigation equipment such as flue gas cleaning and in such versions, sludge from scrubber and waste water adds to the contaminants in lieu of polluted emissions.

There are various types of incinerator plant design: moving grate, fixed grate, rotary-kiln, fluidized bed. The typical incineration plant for municipal solid waste is a moving grate incinerator. The design and operational conditions of MSW incineration process is given in Table below:

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# Design and Operational conditions for MSW incineration

S.N	Aspects	Preferable standards and specifications
1	MSW characteristics	MSW with calorific value as high as possible; Volatile matter >40%; Fixed carbon <15%; Total inert <35%
2	Moisture content	As minimum as possible; <45%
3	Calorific value	As high as possible; >1200 kcal/kg
4	Residence time & Operating temperature	At least 1 sec for flue gas at not less than 980°C in combustion zone
5	Stack- Particulates	Not greater that 1.8 mg/m <sup>3</sup>
5	Stack- CO	Outlet concentration, not greater than 50 ppm (8-hr average)
6	Stack HCl2	Less than 4.5 g/hr
7	Stack- SO2	Not greater than 30 ppm (24-hr daily average)
8	Stack- NO <sub>X</sub>	Not greater than 30 ppm (24-hr daily average)
9	Stack- Temperature	Flue gas temperature to be more than 150°C
10	Dioxin or furan	0.2 ng/dry m <sup>3</sup> corrected to 7% oxygen
11	Opacity	No emission having average opacity of 10% or more for any consecutive 6-minute period
12	Noise	As per Pollution Control Board norms
13	Pollution control	Use of scrubber, bag house, ESP, noise screens, silencers
14	Monitoring- Emission	Online instrumentation for oxygen, plume opacity, SO2, HCl, NO <sub>X</sub> , CO, CO2, Temperature and combustion index.
15	Monitoring-Operation	Online instrumentation for steam pressure and flow, auxiliary fuel, ESP, fabric filters, gaseous contaminant emission control devices.
16	Stack height	H=14Q <sup>U.3</sup> (Q is emission rate of SO2 in kg/hr)
	Residue management	Bottom and fly ash to be reused to the maximum extent and the balance to be disposed of in a double-liner sanitary landfill.
17	Nutrient recovery	Nil
18	Recovery	15-25% bottom ash (including clinker, grit, glass), 3% metals
19	Residuals	3% fly ash (including flue gas residues)

### e. Pyrolysis and Gasification

It is a process that converts carbonaceous materials, such as biomass, into carbon monoxide and hydrogen by reacting the raw material at high temperatures with a controlled amount of

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oxygen. The resulting gas mixture is called synthesis gas or syngas and is itself a fuel. Gasification is a method for extracting energy from different types of organic materials. The advantage of gasification is that using the syngas is more efficient than direct combustion of the original fuel; as it may be burned directly in internal combustion engines, used to produce methanol and hydrogen, or converted via the Fischer-Tropsch process into synthetic fuel. Gasification can also begin with materials that are not otherwise useful fuels, such as biomass or organic waste. In addition, the high-temperature combustion refines out corrosive ash elements such as chloride and potassium, allowing clean gas production from otherwise problematic fuels.

Thus, it is an important technology for renewable energy. In particular biomass gasification is carbon neutral. Gasification relies on chemical processes at elevated temperatures >700°C, which distinguishes it from biological processes such as anaerobic digestion that produce biogas. In essence, a limited amount of oxygen or air is introduced into the reactor to allow some of the organic material to be "burned" to produce carbon monoxide and energy, which drives a second reaction that converts further organic material to hydrogen and additional carbon dioxide. Several gasification processes for thermal treatment of waste are under development as an alternative to incineration.

A major challenge for waste gasification technologies is to reach an acceptable (positive) gross electric efficiency. The high efficiency of converting syngas to electric power is counteracted by significant power consumption in the waste preprocessing, production of large amounts of pure oxygen (which is often used as gasification agent), and gas cleaning. Another challenge in real life is to obtain long service intervals in the plants, so that it is not necessary to close down the plant every few months for cleaning the reactor. Several waste gasification processes have been proposed, but few have yet been built and tested, and only a handful have been implemented as plants processing real waste. Four types of gasifier are currently available for commercial use: countercurrent fixed bed; co-current fixed bed, fluidized bed and entrained flow.

### f. Plasma Pyrolysis

Plasma pyrolysis or plasma gasification is a waste treatment technology that gasifies matter in an oxygen-starved environment to decompose waste material into its basic molecular structure. It uses high electrical energy and high temperature created by an electrical arc gasifier and does not combust the waste as incinerators do.

This arc breaks down waste primarily into elemental gas and solid waste (slag), in a device called a plasma converter. The process has been intended to be a net generator of electricity, depending upon composition input wastes, and to reduce the volumes of waste being sent to landfill sites. Relatively high voltage, high current electricity is passed between two electrodes, spaced apart, creating an electrical arc where temperatures as high as 13,871°C are reached.

The temperature one meter from the arc can reach ~4000°C. At these temperatures most types of waste are broken into basic elemental components in a gaseous form, and complex molecules are atomized - separated into individual atoms. The reactor operates at a slightly

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negative pressure, meaning that the feed system is complemented by a gaseous removal system, and later a solid removal system. Depending on the input waste (plastics tend to be high in hydrogen and carbon), gas from the plasma containment can be removed as Syngas, and may be refined into various fuels at a later stage.

Dioxin emissions are possible from plasma arcs when chlorine is present although the extremely high temperature at which plasma gasification operates minimizes the possibility. Process gas cleanup can be necessary when gasifying waste streams such as municipal waste streams known to contain heavy metals, chlorine/fluorine, sulfur, etc. The basic thermodynamics indicates that the electricity costs will be unavoidably high when processing wet wastes such as municipal wastes, using plasma power alone. Plasma is considered a 4th state. It may be noted that at this stage, they pose a considerable technological and budgetary challenge to construct a municipal-waste disposal sized plasma arc facility.

An issue regarding plasma systems that rely on high temperatures for processing is in the life of their liners. The liner is an important aspect of separating the high interior temperatures of the plasma system from the [metal] shell of the plasma container. Liners are highly susceptible to both chlorine attack and to local variability in [high] temperatures, both of which would be found with typical municipal waste systems, and are not likely to last more than a year in service.

### g. Pelletization/Production of Refuse Derived Fuel (RDF)

It is basically a processing method for mixed MSW, which can be very effective in preparing an enriched fuel feed for thermal processes like incineration or for use in industrial furnaces.

It is a fuel produced by shredding municipal solid waste (MSW) or steam pressure treating in an autoclave. RDF consists largely of organic components of municipal waste such as plastics and biodegradable waste compressed into pellets, bricks, or logs. Noncombustible materials such as glass and metals are removed during the post treatment processing cycle with an air knife or other mechanical separation processing.

The production of RDF involves preliminary liberation, size screening, magnetic separation and coarse shredding. The RDF can be used alongside traditional sources of fuel in coal power plants, cement kiln industry, plasma arc gasification modules, pyrolysis plants etc. RDF is capable of being combusted cleanly and can provide a funding source where unused carbon credits are sold on the open market via a carbon exchange.

The RDF burning technology includes spreader stroker fired boiler, suspension fired boilers, fluidized bed units, and cyclone furnace units (Bjeldanes and Beard 1996).

### Choice of Technology

The suitability of a particular technology for the treatment of MSW depends on a number of factors that essentially include techno-economic viability, environmental safeguards, sustainability and location specificity. The important parameters that are considered generally for a suitability analysis are the quantity of waste that can be handled, physical, chemical and biological characters of waste, land & water requirement, environmental sensitivity to locations, environmental impacts/pollution potential, Capital investment, O&M costs, cost-

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recovery, product utility, by-product usability or reject disposal, requirement of pollution control installation, etc.

The response level of each technology to various parameters is normally considered for suitability analysis in the biophysical scenario of Asansol is given in Table below. The table indicates that the parameters considered for suitability analysis are subjective and somewhat location specific and hence vary from place to place. However, making use of the response level in given Table, a suitability analysis matrix can be generated by attributing response values in the scale of -5 to +5 where the negative values indicates adverse response and positive values indicates beneficial response.

Response level of waste treatment technologies to various suitability determinant parameters in the biophysical background of Asansol:

Parameters	AC	VC	BM	INC	PG	PLSM	RDF
Sensitivity to quantity	Low	High	Mod	Mod	Mod	Mod	Low
Sensitivity to quality	Mod	High	High	Mod	Mod	Low	Low
Land requirement	Mod	High	Low	Low	Low	Mod	Mod
Water requirement	Low	Low	Mod	Low	Low	High	Low
Environ-sensitivity	Mod	Low	Mod	High	High	High	Low
Environmental impacts	Mod	Low	Mod	High	High	High	Mod
Capital investment	Low	High	Mod	High	High	High	High
O&M cost	Low	Low	Mod	High	High	High	High
Cost recovery potential	Mod	High	Mod	Low	Low	Mod	Mod
Product utility	High	High	High	Nil	Low	Mod	High
EMP cost	Mod	Low	Mod	High	High	High	Mod
Manpower requirement	Mod	High	Low	Mod	Mod	Low	Mod
Sustainability	High	High	Mod	Low	Low	Low	Mod
Decentralization	High	High	High	Low	Low	Low	Low

The overall suitability score, given in the below Table indicate that all the methods have an overall adverse response due to the environmental implications it makes in the environment as a technological option. If the overall environmental advantage of these technologies in sustaining or upgrading the ecosystems is taken into consideration, the response values will be positive.

Parameters	AC	VC	BM	INC	PG	PLSM	RDF
Overall score	-4	-8	-12	-32	-32	-30	-18

It is evident that the bioconversion processes have very clear edge over the thermal conversion processes in the biophysical context of Asansol. The high moisture content, low calorific value, substantially high contents of nitrogen, phosphorous and potassium in MSW samples indicate that the vegetative fractions of wastes are more suitable for composting to organic manure after separating the reusable and recyclable fractions.

The inert, non-biodegradable residue left after composting could be disposed of using sanitary landfills. The resource requirement for thermal methods and their environmental impacts are very high and hence, are not generally considered suitable for the State. The

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Table, however, indicates that the proposition of RDF as a potential method for MSW treatment is high, subjected to detailed techno-economic feasibility and sustainability analysis.

### Conclusions

An analysis of various technological options, their salient features, environmental implications, cost norms and suitability to the biophysical environment of Asansol has been carried out. It indicates that windrow-composting, with material recovery mechanism and RDF are the most appropriate techniques for Asansol along with Scientific Landfill.

The analysis indicates that no technology is perfect. All of them have merits and demerits. Therefore, the choice of technology has been done judiciously, considering the ULB's requirement, limited unskilled manpower and various cement and steel industries availability in the periphery of Asansol.

### Land Requirement

For setting of the project land is utmost important. The working indicates the below requirement in Acres for various purposes:

Land Requirement	Area (m2)	Acre
Compost Facility	15000.00	3.71
Secured Landfill	73285.40	18.11
Workshop	2500.00	0.62
Transfer Stations	5000.00	1.24
Admin. Block	1000.00	0.25
Parking	2500.00	0.62
Msc. Activities	2500.00	0.62
Sub-Total	101785.40	25.15
Green Land @ 30%	30535.62	7.55
Total Land Requirement	132321.02	32.70

The above indicated requirements can be met from the land available at three different places as below:

- Kali Pahari 10Acres (2 places adjacent to each other) &
- Raniganj Mangalpur (Existing Facility) 60Acres approx.

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# 6. Service Level Benchmark

Below SLB has been made to ensure good practices at each ward level. These SLBs need to be verified by the respective Ward Supervisor and Sanitary Inspectors and reported to ULB on monthly basis.

Parameters	Desired SLBs	Effect on Project Scope
Household level coverage of solid waste management services	100%	100% Coverage of the project area i.e. 326.48Km2
Efficiency of collection of municipal solid waste	100%	<ul> <li>100% Door to door collection and transportation in covered bins and vehicles, preventing</li> <li>Spillage and consumption by stray animals</li> <li>Any MSW spillage/loss while transportation</li> <li>Removal of recyclable components by ragpickers and hence will have a decimating impact on the rag-picking gangs</li> </ul>
Extent of segregation of municipal solid waste	100%	100% segregation of waste collected from all the ULBs be through automatic segregators, along with de-odorizing and waste spillage control mechanisms.
Extent of municipal solid waste recovered	80%	More than 80% of waste will be converted to energy through waste to energy unit.
Extent of scientific disposal of municipal solid waste	100%	<ul> <li>100% scientific disposal of the inert waste after in the allocated landfill site, with</li> <li>Proper leachate collection &amp; drainage system,</li> <li>Efficient gas collection system</li> <li>Odour control mechanisms</li> <li>Proper green cover, giving it an aesthetic look.</li> </ul>
Efficiency in Redressal of customer complaints	80%	A centrally located GPS tracker and customer care center for quickly identifying the problematic area and service needs by directing the nearest vehicle/ resource to the location, resulting in efficient and timely complain attendance.
Extent of cost recovery in SWM services	100%	The cost recovery will be addressed through suitable mechanism of "friendly" user charges.
Efficiency in collection of SWM charges	90%	This will be achieved by rendering high quality service for initial years and once this is institutionalized, it is expected that user charges recovery will not be an issue.

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# 7. Salient Features of the new Solid Waste Management Rules, 2016

### 1. Application

The Rules shall apply to every urban local body, outgrowths in urban agglomerations, census towns as declared by the Registrar General and Census Commissioner of India, notified areas, notified industrial townships, areas under the control of Indian Railways, airports, airbase, Port and harbour, defense establishments, special economic zones, State and Central government organizations, places of pilgrims, religious & historical importance as may be notified by respective state government from time to time and to every domestic, institutional, commercial and any other non-residential solid waste generator except industrial waste, hazardous waste, hazardous chemicals, bio medical wastes, e-waste, lead acid batteries and radio-active waste.

### 2. Duties of waste generators

- All waste generators shall segregate and store the waste generated by them in three separate streams namely bio-degradable, non-biodegradable and domestic hazardous wastes in suitable bins and handover segregated wastes to authorized rag-pickers or waste collectors;
- Shall wrap securely the used sanitary waste like diapers, sanitary pads etc., in the pouches provided by the manufacturers or brand owners of these products or in a suitable wrapping material and shall place the same in the bin meant for dry waste/ non- bio-degradable waste;
- Shall store separately construction and demolition waste, as and when generated and dispose of as per the Construction and Demolition Waste Management Rules, 2016
- Shall store horticulture waste and garden waste generated from his premises separately and dispose of as per the directions of the local authority.
- Shall not throw, burn or burry the solid waste generated by him, on streets, open public spaces outside his premises or in the drain or water bodies.
- Shall pay such user fee for solid waste management, as specified in the bye-laws of the local bodies.
- Every street vendor shall keep suitable containers for storage of waste generated during the course of his activity such as food waste, disposable plates, cups, cans, wrappers, coconut shells, leftover food, vegetables, fruits etc. and shall deposit such waste at waste storage depot or container or vehicle as notified by the local authority.
- All Resident Welfare and Market Associations, Gated communities and institution with an area >5,000 sq m and all hotels and restaurant shall, within one year from the date of notification of these rules and in partnership with the local authority ensure segregation of waste at source by the generators as prescribed in these rules, facilitate collection of segregated waste in separate streams, handover recyclable material to either the authorized waste pickers or the authorized recyclers. The bio-degradable waste shall be processed, treated and disposed off through composting or biomethanation within the premises as far as possible. The residual waste shall be given to the waste collectors or agency as directed by the local authority.

### 3. Duties of Ministry of Urban Development

MoUD shall formulate National Policy and Strategy on Solid Waste Management including policy on Waste to Energy, promote research and development, undertake training and capacity building

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of local bodies, provide technical guidelines and project finance and review periodically the measures taken by the States.

### 4. Duties of Department of Fertilizers, Ministry of Chemicals and Fertilizers

Shall provide market development assistance on city compost and ensure promotion of comarketing of compost with chemical fertilizers in the ratio of 3 to 4 bags: 6 to 7 bags by the fertilizer companies to the extent compost is made available for marketing to the companies.

### 5. Duties of Ministry of Agriculture, Government of India

 MoA shall provide flexibility in Fertilizer Control Order for manufacturing and sale of compost, propagate utilization of compost on farm land, set up laboratories to test quality of compost produced by local authorities or their authorized agencies.

### 6. Duties of the Ministry of Power

 MoP shall decide tariff or charges for the power generated from the Waste to Energy plants based on solid waste and ensure compulsory purchase power generated from such Waste to Energy plants by DISCOMs.

### 7. Duties of Ministry of New and Renewable Energy Sources

 MNRE shall facilitate infrastructure creation for Waste to Energy plants and provide appropriate subsidy or incentives for such Waste to Energy plants

# 8. Duties of the Secretary-in charge, Urban Development in the States and Union Territories. And Duties of the Secretary-in charge of Village Panchayats or Rural Development Department in the State and Union Territory

- The Secretary, State Urban Development Department in the State or Union Territory through the Commissioner or Director of Municipal Administration or Director of Local Bodies shall prepare a state policy on solid waste management within a year, ensure identification and allocation of suitable land for setting up processing and disposal facilities for solid wastes within one year and incorporate them in the master plan, ensure that a separate space for segregation, storage, decentralized processing of solid waste is demarcated in the development plan for group housing or commercial, institutional or any other non-residential complex exceeding 200 dwelling or having a plot area exceeding 5,000 square meters;
- Ensure that the developers of Special Economic Zone, Industrial Estate, Industrial park earmark
  at least 5% of the total area of the plot or minimum 5 plots/ sheds for recovery and recycling
  facility.
- Notify buffer zone for the solid waste processing and disposal facilities of more than 5 tons per day in consultation with the State Pollution Control Board and start a scheme on registration of waste pickers and waste dealers.

### 9. Duties of Central Pollution Control Board

The Central Pollution Control Board shall co-ordinate with the State Pollution Control Boards and the Pollution Control Committees for implementation of these rules and adherence to the prescribed standards by local authorities; formulate / review the standards for ground water, ambient air, noise pollution, leachate in respect of all solid waste processing and disposal facilities;

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- review the proposals of state pollution control boards or pollution control committees on use of any new technologies for processing, recycling and treatment of solid waste and prescribe performance standards, emission norms for the same within 6 months;
- prepare an Annual Report on implementation of these rules on the basis of reports received from State Pollution Control Boards and Committees and submit to the Ministry of Environment, Forest and Climate Change and the report shall also be put in public domain;
- publish guidelines for maintaining buffer zone restricting any residential, commercial or any other construction activity from the outer boundary of the waste processing and disposal facilities for different sizes of facilities handling more than 5 tons per day of solid waste;
- publish guidelines, from time to time, on environmental aspects of processing and disposal of solid waste to enable local bodies to comply with the provisions of the rules; and
- Provide guidance to States or Union Territories on inter-state movement of waste.

# 10. Duties and Responsibilities of local authorities and village Panchayats of census towns and urban agglomerations

- The local authorities and Panchayats shall prepare a solid waste management plan as per State
   Policy within six months
- arrange for door to door collection of segregated solid waste; integrate rag pickers / informal waste collectors in solid waste management frame bye-laws incorporating the provisions of these rules within one year, prescribe user fee;
- direct waste generators not to litter and to segregate the waste at source and hand over the segregated waste to authorized waste pickers the waste collector authorized by the local authority;
- setup material recovery facilities or secondary storage facilities and provide easy access to waste pickers and recyclers for collection of segregated recyclable waste;
- establish waste deposition centre/s for domestic hazardous waste and ensure safe storage and transportation of the domestic hazardous waste to the hazardous waste disposal facility or as may be directed by the state pollution control board/ committee;
- direct street sweepers not to burn tree leaves collected from street sweeping and store them separately and handover to the waste collectors or agency authorized by local authority;
- provide training on solid waste management to waste-pickers and waste collectors; promote setting up of decentralized compost plant or biomethanation plant at suitable locations in the markets or in the vicinity of markets ensuring hygienic conditions;
- collect separately waste from sweeping of streets, lanes and by-lanes daily, or on alternate days
  or twice a week depending on the density of population, commercial activity and local situation.;
- collect horticulture, parks and garden waste separately and process in the parks and gardens, as far as possible;
- Transport segregated bio-degradable waste to the processing facilities like compost plant, biomethanation plant or any such facility. Preference should be given for onsite processing of such waste:
- transport non-bio-degradable waste to the respective processing facility or material recovery facilities (MRF) or secondary storage facility;
- transport construction and demolition waste as per the provisions of Construction and Demolition Waste management Rules, 2016
- involve communities in waste management and promotion of home composting,
- bio-gas generation, decentralized processing of waste at community level subject to control of odour and maintenance of hygienic conditions around the facility;

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- Phase out the use of chemical fertilizer in two years and use compost in all parks, gardens maintained by local authority and wherever possible in other places under its jurisdiction. Incentives may be provided to recycling initiatives by informal waste recycling sector.
- facilitate construction, operation and maintenance of solid waste processing facilities such as biomethanation, microbial composting, vermi-composting, anaerobic digestion or any other appropriate processing for bio-stabilization of biodegradable wastes; waste to energy processes including refused derived fuel for combustible fraction of waste or supply as feedstock to solid waste based power plants or cement kilns;
- make an application for grant of authorization for setting up waste processing, treatment or disposal facility if the volume of waste is exceeding five metric tones per day;
- prepare and submit annual report before the 30th April of the succeeding year to the Commissioner or Director, Municipal Administration or designated Officer and be send to the Secretary, -in-Charge of State Urban Development Department or village panchayat or rural development department and to the respective State Pollution Control Board or Pollution Control Committee by the 31st May of every year;
- educate workers including contract workers and supervisors for door to door collection of segregated waste and transporting the unmixed waste during primary and secondary transportation to processing or disposal facility;
- ensure that the operator of a facility provides personal protection equipment including uniform, fluorescent jacket, hand gloves, raincoats, appropriate foot wear and masks to all workers handling solid waste and the same are used by the workforce;
- ensure that provisions for setting up of centers for collection, segregation and storage of segregated wastes, are incorporated in building plan while granting approval of building plan of a group housing society or market complex; and
- frame bye-laws and prescribe criteria for levying of spot fine for persons who litters or fails to comply with the provisions of these rules and delegate powers to officers or local bodies to levy spot fines as per the bye laws framed; and create public awareness on SWM
- stop land filling or dumping of mixed waste soon after the timeline as specified in Rule 23 for setting up and operationalization of sanitary landfill is over; allow only the non-usable, nonrecyclable, non-biodegradable, non-combustible and non-reactive inert waste and pre-processing rejects & residues from waste processing facilities to go to sanitary landfill;
- investigate and analyse 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.
- 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.

### 11. Duties of District Magistrate or District Collector or Deputy Commissioner

The District Magistrate or District Collector or Deputy Commissioner shall facilitate identification and allocation of suitable land for setting up solid waste processing and disposal facilities and review the performance of local bodies, at least once in a quarter.

### 12. Duties of State Pollution Control Board or Pollution Control Committee

The State Pollution Control Board or Pollution Control Committee shall enforce these rules in their State; monitor environmental standards; examine the proposal for grant of authorization; regulate

Inter-State movement of waste.

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• All manufacturers of disposable products such as tin, glass, plastics packaging etc. or brand owners who introduce such products in the market shall provide necessary financial assistance to local authorities for establishment of waste management system.

All such brand owners who sale or market their products in such packaging material which are non-biodegradable shall put in place a system to collect back the packaging waste generated due to their production.

Manufacturers or Brand Owners or marketing companies of sanitary napkins and diapers shall explore the possibility of using all recyclable materials in their products or they shall provide a pouch or wrapper for disposal of each napkin or diapers along with the packet of their sanitary products.

All such manufacturers, brand owners or marketing companies shall educate the masses for wrapping and disposal of their products.

# 14. Duties of the industrial units located within one hundred km from the RDF and Waste to Energy plants based on solid waste

All industrial units using fuel and located within 100 km from a solid waste based RDF plant shall make arrangements within six months from the date of notification of these rules to replace at least 5 % of their fuel requirement by RDF so produced.

### 15. Criteria for setting up solid waste processing and treatment facility

- The department dealing the allocation of land will be responsible for providing suitable land for setting up of the solid waste processing and treatment facilities; The operator of the facility shall obtain necessary approvals from the State Pollution Control Board or Pollution Control Committee and responsible for safe and environmentally sound operations of the solid waste processing and or treatment facilities.
- The operator of the solid waste processing and treatment facility shall submit annual report by 30th April to the State Pollution Control Board/ Pollution Committee and Local authority.

### 16. Criteria and actions to be taken for solid waste management in hilly areas

- Construction of landfill on the hill shall be avoided. A transfer station at a suitable enclosed location shall be setup to collect residual waste from the processing facility and inert waste. A suitable land shall be identified in the plain areas down the hill within 25 kilometers for setting up sanitary landfill. The residual waste from the transfer station shall be disposed of at this sanitary landfill.
- In case of non-availability of such land, efforts shall be made to set up regional sanitary landfill for the inert and residual waste.

### 17. Criteria for waste to energy process

Non-recyclable waste having calorific value of 1500 K/Cal/kg or more shall not be disposed of on landfills and shall only be utilized for generating energy either or through refuse derived fuel or by giving away as feed stock for preparing refuse derived fuel. High calorific wastes shall be used for coprocessing in cement or thermal power plants.

18. State Level Advisory Body

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Every Department in-charge of Local bodies of the concerned State Government or Union Territory administration shall constitute a State Level Advisory Body within six months from the date of notification of these rules.

### 19. Time frame for implementation

- Necessary infrastructure for implementation of these rules shall be created by the local bodies and other concerned authorities, as the case may be, on their own directly or by engaging agencies within the time frame specified in the rules and
- setting up solid waste processing facilities by all local bodies having 100000 or more population within two years, local bodies and census towns below 100000 population, setting up common or stand-alone sanitary landfills by or for all local bodies having 0.5 million or more population and setting up common or regional sanitary landfills by all local bodies and census towns under 0.5 million population three years, bio-remediation or capping of old and abandoned dump sites five years.

### 20. Specifications for Sanitary Landfills

- The rules specifies criteria for site selection, development of facilities at the sanitary landfills, specifications for land filling operations and closure on completion of landfilling, pollution prevention, Closure and Rehabilitation of Old Dumps, specifies Criteria for special provisions for hilly areas
- The rules specifies Standards of processing and treatment of solid waste, composting, treated leachates, incineration.

### 21. Monitoring

- The Ministry of Environment, Forest and Climate Change shall be responsible for overall monitoring the implementation of these rules in the country. It shall constitute a Central Monitoring Committee under the chairmanship of Secretary, Ministry of Environment, Forest and Climate Change comprising of the Ministry of Urban Development, Ministry of Rural Development, Ministry of Chemicals and Fertilizers, Ministry of Agriculture, Central Pollution Control Board, Three State Pollution Control Boards /Pollution Control Committees, Urban Development Departments of three State Governments, Rural Development Departments from two State Governments, Three Urban Local Bodies, Two census towns, FICCI, CII and Two subject experts.
- This committee shall meet at least once a year to monitor and review the implementation of the rules. The Ministry may co-opt other experts, if needed. The Committee shall be renewed every three years.

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## 8. Way Forward

To ensure effective implementation of solid waste management plan in accordance with the detailed project report (DPR) following actions need to be taken on priority basis:

- To call a meeting with the concerned stake holders and finalize the financial contours and modalities of the project components
- 2) Once the modalities are freezed and funding pattern is decided then MoU to be entered between the beneficiary, lender and guarantor
- 3) To ensure that the land earmarked for the project is clear from all encumbrances and also the ADDA has declared 500mtr periphery as "Buffer Zone" or "No development Zone"
- 4) To seek the help of an EIA consultant for getting all statutory Environmental Clearances from the prescribed authorities
- 5) To immediately implement the USER CHARGES Mechanism by getting it passed from the MIC of the Asansol Municipal Corporation
- 6) To open an ESCROW Account to deposit all the collection fees and funds in the account, which specifically be used for meeting the project operational and maintenance cost
- 7) To form a committee chaired by Municipal Commissioner, which shall monitor the progress and ensure quality deliverables as per the project plan
- 8) To enhance capacity building of the ULB through various methods as described under the DPR
- 9) To start the IEC activities for mass awareness related to waste management
- 10) To prepare RFP document for the project and get the project awarded to successful bidder
- 11) To appoint a PMU to monitor the progress and ensure effective implementation of the project in compliance with the Solid Waste (Management and Handling) Rules, 2016
- 12) To initiate phase 2 of project post completion of procurement under phase 1.

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# 9. Roles and Responsibilities of Key Stakeholders

To ensure effective implementation and compliance with MSW Rules, the roles and responsibilities of key stakeholders has been detailed below:

### Ministry of Urban Development

- a) To release the agreed fund amount on receiving the approved project report
- b) Provide technical support to the ULB, if asked
- c) To help ULB in Bid Management

### State Government of West Bengal

- a) To recommend the proposed project report to central for release the agreed fund
- b) To release the fund allocated under the head by the central to ULB
- c) To provide the administrative help and environmental clearances, if so required

### **Urban Local Body (Asansol Municipal Corporation)**

- a) To technically review the project components and get the approval from MIC
- b) To send the project to Mission Director State to recommend and send to Central for allocation of grants
- To ensure all compliances related to enviro-legal matters with effective monitoring and reporting
- d) Proper utilization of the allocated funds with proper time schedule implementation of the project.

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# Cost Estimates and Financial Sustainability

It is decided that project shall be taken up in two phases. Phase-1 shall be having the Collection & Transportation part which does include equipments and tools required for door to door collection of the wastes, public litter collection, road sweeping and drain cleaning equipments, transfer station & service station for the vehicles and equipments used under C&T. Costing break up is indicated as below;

	Heads	Rs.(Cr)
	Equipment (Collection & sweeping tools, apron and safety gears etc.)	0.80
Collection	Vehicles (Rickshaw, Auto Tippers etc.)	5.51
	Dustbins (Residential Bins for segregation & litter bins)	9.22
	Other Costs	0.83
<b>注</b> 表表	TOTAL	16.36

<b>独观影</b> 证证(3)	Heads	Rs.(Cr)
	Tools & Equipment	1.78
Transportation	Vehicles (Compactor Placers, Dumper Placers, JCB etc.)	6.64
	Bins (Community Bins, Dumper Bins, Compactor Bins)	3.97
	Transfer Station	2.72
	TOTAL	15.11

	Heads	Rs.(Cr)
Other Costs	Service Station for equipment & Vehicles	0.44
- 111ci 003t3	Misc. and IDC	2.49
	TOTAL	2.93

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# Annexure 1: Asset Requirements for Primary and Secondary Operation -Asansol Municipal Corporation

	Asset Details		Kulti (M)		Asansol (MC)	i (MC)	Jamu	Jamuria (M)	Ranig	Raniganj (M)	offy.	Grand Total
Code/ Type	Detail	Rate	Qfy	Amount	aty	Amount	Oth	Amount	Otty	Amount	(Nos)	(Rs. In Cr.)
15Ltrs (HHB)	House Hold bins for segregation at source (Cap.15Ltr)	200	116716	2.33	227478	4.55	53990	1.08	50956	1.02	449140	8.98
150Ltrs (CB)	Community Bin for littering (Cap.150Ltr)	1500	407	90.0	780	0.12	192	0.03	183	0.03	1562	0.23
Rickshaw	For D-2-D Collection	25000	100	0.25	187	0.47	51	0.13	47	0.12	385	96.0
Wheel Barrow	For D-2-D Collection	10000	149	0.15	280	0.28	75	0.08	69	0.07	573	0.57
Broom	For Street Sweeping with long handle	250	923	0.02	2244	90.0	396	0.01	374	0.01	3937	0.10
Belcha	For waste lifting	350	305	0.01	748	0.03	133	0.00	124	0.00	1310	0.05
Punja	For waste lifting	350	305	0.01	748	0.03	133	0.00	124	0.00	1310	0.05
Collector	For waste lifting	250	305	0.01	748	0.02	133	0.00	124	0.00	1310	0.03
1.1m3 (CP)	For secondary waste collection for CPV (Cap.1100Ltr)	20000	63	0.32	66	0.50	28	0.14	25	0.13	215	1.08
4.5m3 (DP)	For secondary waste collection for DPV (Cap.4500Ltr)	80000	54	0.43	99	69.0	24	0.19	23	0.18	187	1.50
8m3(CC)	For secondary waste containerized collection, compaction & transportation(Cap.8000Ltr)	2000000	7	0.40	es .	0.60	_	0.20	-	0.20	_	1.40
Auto-Tipper	For D-2-D Collection	020009	16	1.04	30	1.95	00	0.52	7	0.46	61	3.97
CPV (14m3)	Compactor Placer Vehicle for CP Bins (Cap.10-12Tons)	3800000	2	0.76	3	1.14	-	0.38	-	0.38	2	2.66
DPV	Dumper Placer Vehicle for lifting of DP Bins	1700000	2	0.85	o	1.53	2	0.34	2	0.34	18	3.06
JCB	For the support services with catcher	2300000	-	0.23	-	0.23	-	0.23	-	0.23	4	0.92
Grand Total Cost (Rs.	st (Rs.)			7.09	Haller Inches	12.39	٠	3.50		3.33		26.31
MPLAD fund	MPLAD fund for the Auto Tippers	STATES OF STATES OF	2		4		6		c		4.0	C .

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# Annexure 2: Staff Requirements for implementation of ISWM

Current Staff Status with Asansol Municipal Corporation is laid as under:

No. Name of Post	Sanctioned Post	Existing Post	Vacant Post	Permanent Post	Contractual Post
NO. IVAILED STATE OF THE PARTY	Jamuria Off	ice	TO BEEN	7 2 de 10 de	Jensey H.
1 Health Officer	C	1	0	0	1
2 Environment Officer	0	0	0	0	0
3 Sanitary Inspector	1	1	0	1	0
4 Supervisor	C	0	0	0	0
5 Sweeper/ Labour	C	46	0	0	46
<b>对外的基础的基础的,但是不是对对</b>	Raniganj Of	fice			Section Control of
1 Health Officer	0	0	0	0	0
2 Environment Officer	C	0	0	0	0
3 Sanitary Inspector	2	1	1	1	1
4 Supervisor	6	3	3	6	0
5 Sweeper/ Labour	143	74	69	74	0
	Kulti Offic	e			
1 Health Officer	2	0	0	0	1
2 Environment Officer	0	0	0	0	0
3 Sanitary Inspector	3	2	1	2	0
4 Supervisor/ Mate	16	10	6	10	0
5 Sweeper/ Labour	110	73	37	73	312
	Asansol Off	ice			
1 Health Officer	1	0	1	0	1
2 Environment Officer	C	1	0	0	1
3 Sanitary Inspector/ Action S.I.	4	8	3	2	
4 Supervisor/ Mate	4	3	1	11	70
5 Sweeper/ Labour	443	142	301	118	1056

Whereas, the suggested requirement for effective Sanitation and Waste Management in Asansol is detailed as below:

1)	Waste Management Expert	: 1
2)	Environment Officer / Zonal Sanitary Inspectors	: 4
3)	Sanitary Inspectors (7 - 8wards each)	: 14
4)	Drivers (LMV)	: 72
5)	Driver (HMV)	: 31
6)	Helpers	: 39
7)	Waste Handlers/ Sweeners/ Safai Karmi (Labour)	: 127

The existing gaps are thus suggested to be filled at the earliest either by direct recruitment or through outsource human resource agency.\*\*

The existing supervision and below sanitation staff is exceptus / Labour of ULB's on regular prystate shall be deployed for troad sweeping and draw cleaning activities in few of the wards. The private operation shall deploy his learn to meet the ward's waste management than deploy his learn to meet the ward's waste management.

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