

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

OA NO. 199 OF 2014
WP(C) 888/1996 IN SC)

IN THE MATTER OF:

PETITIONER: ...Almitra H Patel

Versus

RESPONDENT: ...UOI &Ors.

INDEX

Sl.No.	Particulars	Pages
1.	Affidavit in compliance of order dated 12.01.2017, 20.1.2017 & 07.02.2017 on behalf of respondent no.7 (State of Madhya Pradesh) alongwith detailed action plan for MSW Management in the State.	

Place: New Delhi
Dated:22.02.2017

(V.K. SHUKLA)
Standing Counsel for the
State of Madhya Pradesh
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**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL,
PRINCIPAL BENCH, NEW DELHI**

O.A. No. 199 of 2014

PETITIONER: **Almitra H. Patel**

//VERSUS//

RESPONDENT: **Union of India & Ors.**

**AFFIDAVIT IN COMPLIANCE OF ORDER DATED
12.01.2017, 20.01.2017 & 07.02.2017,
PASSED BY THIS HON'BLE TRIBUNAL.**

I Neelesh Dubey S/o Shri S.S Dubey aged about 47 years, Deputy Director, Directorate of Urban Administration and Development, Madhya Pradesh, do hereby solemnly affirm and declare as under:

1. That, I am the Officer-in-Charge appointed in the present case and as such I am fully conversant with the facts and circumstances of the case and, therefore competent to swear this affidavit.
2. That the aforesaid matter related to Municipal Solid Waste Rules is pending adjudication before this Hon'ble Tribunal and listed for compliance on 01.03.2017.
3. That vide its order dated 12.01.2017 this Hon'ble Tribunal was pleased to issue notice to all the State Governments, Union Territories, Pollution Control Boards, Local Authorities of the respective states to show cause why appropriate directions be not passed by the

Tribunal to ensure compliance of the judgment. Further these Authorities were directed to file complete and detailed Action Plan.

4. That in compliance of the order dated 12.01.2017 the answering Respondent State of Madhya Pradesh filed affidavit dated 18.01.2017 vide diary no. 317/2017, at pages 12558 – 12562 of the Paperbook.
5. That vide order dated 20.01.2017 this Hon'ble Tribunal was pleased to direct that replies to show cause be filed by Secretary of concerned Government.
6. That since the earlier affidavit filed by the answering respondent dated 18.01.2017 was not filed by the Secretary concerned, in compliance of the order dated 20.01.2017 the answering Respondent State of Madhya Pradesh filed another affidavit of Principal Secretary dated 02.02.2017 vide diary no. 658/2017, **at pages 12606 – 12613 of the Paperbook.**
7. That since some of the States/authorities did not submit the detailed action plan, vide order dated 07.02.2017, this Hon'ble Tribunal again directed the Respondents to file the detailed action plan along with affidavit within two weeks.
8. That it is pertinent to mention here that the answering respondent State, through its Principal Secretary, had also filed a detailed action plan before this Hon'ble

Tribunal on 30.07.2015 vide diary no.3665/2015 at **pages 9798 to 9842 of the Paperbook.**

9. That now in compliance of order dated 07.02.2017, the Urban Development and Housing Department of the answering respondent State has prepared a revised and updated action plan as per direction of this Hon'ble Tribunal. A copy of the detailed action plan prepared by the answering respondent for Solid Waste Management in the state, is annexed herewith as **ANNEXURE – A.**
10. That the answering respondent is filing the detailed action plan in compliance of the order of this Hon'ble Tribunal, however, as duty bound the answering respondent shall be abiding by any further directions issued by this Hon'ble Tribunal for the benefit of the environment and public at large.

VERIFICATION

Verified at Bhopal on this 22nd day of February 2017, that the contents in the aforesaid affidavit are true and correct to the best of my knowledge and belief and nothing material has been concealed therefrom.

DEPONENT

ACTION PLAN
FOR
MUNICIPAL SOLID WASTE MANAGEMENT
IN MADHYA PRADESH
(Revised February 2017)



URBAN DEVELOPMENT & HOUSING DEPARTMENT (UD&HD)
GOVERNMENT OF MADHYA PRADESH

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1. Background & Introduction

Madhya Pradesh is a state with a population of 72.5 million covering 9.5% of the total area of the country (308,000 Sq.). The urban population of the state is across 378 ULBs which has increased to 20 million in 2011 from 16.1 million in 2001, growing at a CAGR of ~2.2%. The high rate of urbanization has led to increased focus on urban infrastructure and Municipal service delivery which has further led to increased investment requirement in the urban development. However, this rate of urbanization has resulted in generation of large quantities of Municipal Solid Waste in big cities as well as small towns also.

Thus, preparation of object and time-targeted action plan for management of municipal solid waste (MSW), for each city and town in the state is essential in accordance with the population and developmental growth, so that environmental conditions improve and makes city liveable for every citizen.

2. Directions of HON'BLE NGT

Hon'ble National Green Tribunal (NGT) in OA No 199 of 2014 (Almitra H. Patel Vs Union of India) on 12th January, 2017 directed State government to *"file complete and detailed Action Plan and affidavits to show how the municipal solid waste in the State would be processed and degradation of environment and public health resulting here from would be prevented. As part of this Action Plan they would also required to submit a total solid waste generated and how that solid waste was required to be treated in a time bound manner in regard to this directions."*

3. Need for Municipal Solid Waste Management

Solid Waste Management is a part of public health and sanitation, and according to the Indian Constitution, falls within the purview of the State list. Since this activity is non-exclusive, non-rivalled and essential, the responsibility

4. Past prevailing situation of MSWM & Practice

The Solid Waste Management in all ULBs should have started as directed by the Honourable Supreme Court of India by 2005. But due to non availability of trained and knowledgeable manpower, lack of financial resources, operational non viability because of inadequate quantity of waste generated in maximum number of ULBs, the complete management of MSW as per rules could not be implemented in any of ULBs.

However some of the bigger ULBs have been implementing it on a piece meal basis. Some examples are as follows:

1. Indore	Outsourced secondary collection and waste processing of 500 TPD to a private operator. But the result was not satisfactory because of many reasons.
2. Gwalior	It was the first town in Madhya Pradesh which got Sanitary Landfill constructed and started managing it. It also outsourced door to door collection (DTDC) to a private operator. All the operations stopped later on
3. Ujjain	Have recently outsourced waste processing to private operator. The complete results are yet to be assessed.
4. Rewa	It also outsourced secondary transportation of waste. But the results have not been satisfactory.

5. Initiative of State Government for Integrated Solid Waste Management (ISWM)

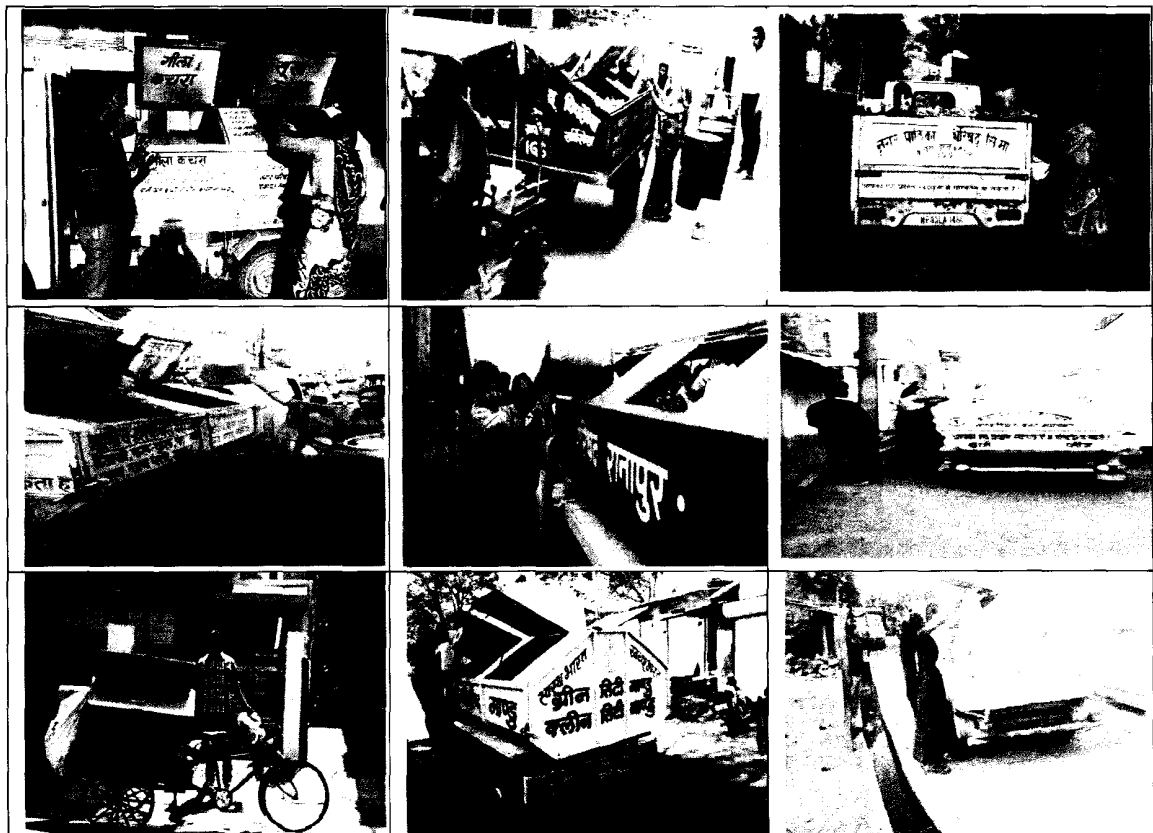
The State Govt. has been issuing regular instructions to ULBs for implementing SWM as per provisions of MSW Rules 2000/2016. It also got Govt. land allotted to all ULBs for processing / landfill facility, all large towns i.e. above 50000 populations. The State Govt. had been providing support to ULBs through grants from **Mukya Mantri Swachta Mission** as initiative of State Govt. for sanitation, for purchasing of equipments and vehicles for Solid Waste

The State Govt. has also instructed all ULBs to start door to door collection (DTDC) in every ward of the town which is being followed across all ULBs. Many NGOs are involved in door to door collection in some of the areas of many towns. Many Resident Welfare Associations are also engaged in door to door collection in their own colonies. Collection & Transportation is being done by urban local bodies. The status of door to door collection across the state is shown in table below.

Total No. of Wards	Ward with 100% door to door collection, Nos.
6999	4136

Many of the smaller ULBs have started 100% door to door collection (DTDC) and also treating waste through composting. However, as presently there is no Landfill site has been constructed, the scientific disposal of reject/inert is not being done

Below: Photographs depicting Door to Door Collection across the State:



- **Regional Integrated MSW facilities:** The whole state has been divided into ~26 clusters for MSW management (Details list towns in cluster is attached in Annexure-1).

1	Sagar Cluster (11 ULBS)	11	Chhatarpur Cluster (28 ULBS)	21	Mandsaur Cluster (22 ULBS)
2	Katni Cluster (05 ULBS)	12	Damoh Cluster (12 ULBS)	22	Vidisha Cluster (15 ULBS)
3	Jabalpur Cluster (01 ULBS)	13	Bhind Cluster (14 ULBS)	23	Shajapur Cluster (26 ULBS)
4	Bhopal Cluster (08 ULBS)	14	Narsinghpur Cluster (15 ULBS)	24	Ratlam Cluster (17 ULBS)
5	Rewa Cluster (28 ULBS)	15	Singrauli Cluster (01 ULBS)	25	Chhindwara Cluster (20 ULBS)
6	Indore Cluster (08 ULBS)	16	Betul Cluster (08 ULBS)	26	Pithampur Cluster (24 ULBS)
7	Gwalior Cluster (16 ULBS)	17	Balaghat Cluster (13 ULBS)		
8	Burhanpur Cluster (10 ULBS)	18	Shahdol Cluster (16 ULBS)		
9	Dewas Cluster (24 ULBS)	19	Shivpuri Cluster (10 ULBS)		
10	Hoshangabad Cluster (14 ULBS)	20	Guna Cluster (11 ULBS)		

Name of Clusters for Integrated Solid Waste Management on Regional Landfill approach

In each of the clusters, a regional Integrated Solid Waste Management (ISWM) Facility will be developed where waste collected and transported from all the ULBs will be processed and disposed in a scientific landfill site as per MSW Rules 2016 and other statutory requirements.

Further, satellite waste storage and satellite processing facilities may be developed in each of the clusters to minimize the transportation costs. Therefore, each cluster will have a combination of ISWM Facility, satellite segregation-cum-processing units (if required) and waste storage units.

PPP mode will allow state government to leverage on the technical as well as O&M expertise of private sector. A combination of grant from

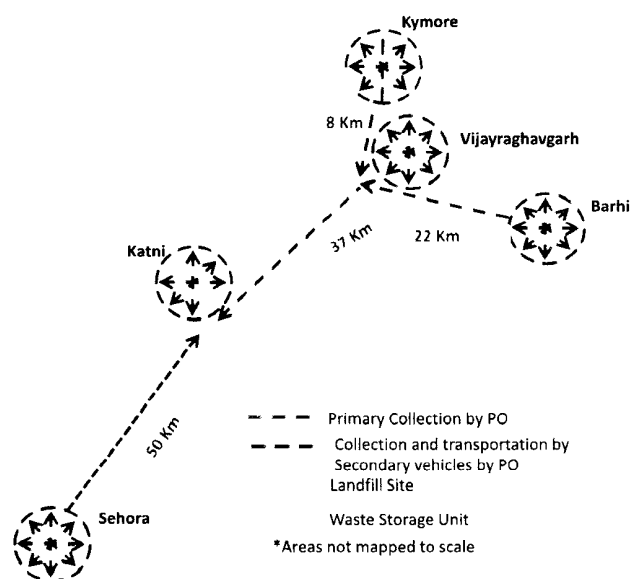
The table below shows the impact that the proposed projects will bring after implementation in comparison to the Service Level Benchmarks laid down by Govt. of India.

Parameters	SLBs	Effect on Project Scope
Household level coverage of solid waste management services	100%	100% Coverage of the project area in all ULBs.
Efficiency of collection of Municipal solid waste	100%	100% Door to door collection and transportation in covered vehicles, preventing <ul style="list-style-type: none"> • Spillage and consumption by stray animals • Any MSW spillage/loss while transportation
Extent of segregation of Municipal solid waste	100%	100% segregation of waste collected from all the ULBs through automatic segregators, along with de-odorizing and waste spillage control mechanisms.
Extent of Municipal solid waste recovered	80%	Recyclable components will be reused, bio-degradable will be scientifically processed and recovered as either manure, RDF etc ,and the inert will be disposed in landfill site, hence encouraging more than 80% recovery and reuse of waste
Extent of scientific disposal of Municipal solid waste	100%	100% scientific disposal of the inert waste in the allocated landfill site, with <ul style="list-style-type: none"> • Proper leachate collection & drainage system, • Efficient gas collection system • Odour control mechanisms • Proper green cover, giving it an aesthetic look.
Efficiency in redressal of customer complaints	80%	A centrally located GPS tracker and customer care centre for quickly identifying the problematic area and service needs by directing the nearest vehicle/ resource to the

- **Implementation Modality:** The projects have been framed on Design part Finance Built Operate and Transfer basis with a performance Based O&M for 21 year Concession period. Further the private operator is given the freedom to use appropriate technology for MSW processing, making the bids Technology Neutral.
- **Payment Guarantee Mechanisms by GoMP:** Full guarantee by GoMP will be provided for tipping fee payment to Private Operator in case ULBs delay the payment of tipping fee to the concessionaire, with a state intercept, wherein GoMP deducts the portion of payment from various devolutions already being done to ULBs.
- **Information, Education and Communication (IEC) activities and Environment Health and Social Campaigns:** The private operator will carry out IEC and EHS activities to educate citizens and ULB employees for their role in making the cities clean.
- **Robust monitoring framework:** Apart from the Independent Engineer, a Monitoring Committee, composed of CMOs of all ULBs as well as 4-5 sanitary officers from each ULB, will be constituted to monitor the day to day activities.

6.2. IMPLEMENTATION OF CLUSTER BASED ISWM PROJECT ON REGIONAL LANDFILL APPROACH.

A. ISWM Katni Project: The state has planned Katni Cluster on the above lines. The image below shows the operational plan for Katni cluster. The proposed project will cater to ~95 MT waste/day, collectively from Katni, Sihora, Kymore, Vijayraghavgarh and Barhi. The ISWM Facility has been planned in Katni while waste



bigger ULB to act as lead member of the cluster.

Officers of ULBs was authorized through a resolution by ULBs to take all decisions which shall be implemented by the CEO of lead member i.e. Katni.

B. To help and monitor day to day activities of concessionaire, an agency to be appointed to act as Independent Engineer for the full Concessionaire period.

Sources of Funds for CAPEX 70% of the estimated cost of the project comprises of 50% Grant to ULBs by State plus 20% loan to ULBs (through DFID supported MPUIF).
 a. 30% of the estimated cost of the project plus any cost

Project OPEX
Support to ULBs for paying Tipping fee Payment Guarantee on Behalf of ULBs

Private Operator Grant from GoMP for the initial 4-5 years Payment Guarantee from GoMP for payment of tipping fee to Concessionarie.

6.3. Current Status of the ISWM Projects, Cluster Based on Regional Landfill approach

a) ISWM Projects Katni (05 ULBs) & Sagar (11 ULBs)

The Feasibility Study Report (FSR) was prepared by ICF-GHK the consulting agency for DFID aided MP Urban Infrastructure Investment Programme (MPUIIP) of Urban Administration and Development Directorate, after collection of data and field visits. The concept of the project along with the Feasibility Study Report (FSR) was explained to the citizens in an open workshop conducted at all ULBs by UADD officials and consultants. After getting approval of ULBs through a resolution the RfP documents for both the projects were prepared by the consulting teams and the approval of these documents was done by State Level Empowered Committee (for PPP Projects) headed by Chief Secretary GoMP.

Transparent bidding process was conducted for both the projects. UADD provided support to ULBs in bidding and an expert team consisting of consultants, UADD officials, experts and ULB officials did the evaluation of bids.

M/S Ramky Enviro., Hyderabad was the preferred bidder for both the projects. The concession agreement for both the projects has been signed and the process of implementing the project is underway.

The concessionaire has started door to door collection, secondary collection and transportation for both the project in Dec-2015. However, as there was delay in securing environmental clearance, and other multiple factors beyond the control of concessionaire the ISWM facility operations was also delayed. At present, the construction and establishing the plant has begun and the full operations of plant and associated facilities including waste processing and final disposal is expected to start by May 2017.

Also, due to high efficiency of waste collection, transportation from all the towns of both the project area, all the cities are clean, littering of waste is minimal and there has been considerable improvement in environmental conditions, which is also shown in the chart below. The citizens of these cities



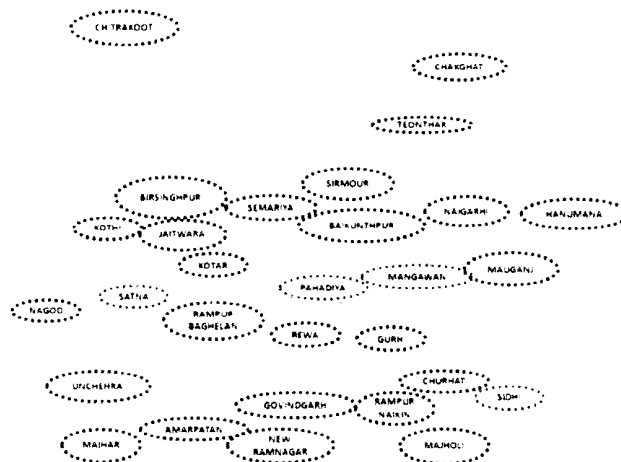
c) ISWM Project Bhopal, Rewa, Indore & Gwalior

The concessionaire for Bhopal (8 ULBs) and Rewa (28 ULBs) Cluster, have been selected and are at various stages of preparation of implementing projects. Both these projects are Waste to Energy project. Five Clusters Jabalpur, Bhopal, Rewa, Indore and Gwalior shall be Waste to Energy Projects.

The bids for Indore (08 ULBs) and Gwalior (16 ULBs) cluster are under evaluation and concessionaire agreement for both the clusters is expected to be signed by mid of March 2017.

- **Name of Cluster: Bhopal Cluster**
- Towns: Ashta, Berasia, Bhopal, Ichhawar, Kothri, Mandideep, Obedullaganj, Sehore
- Est. Project Cost. (Rs. Cr):465.76
- Total MSW Generated (TPD): 1065
- Concession Period:21 years including implementation
- Implementation Modality: Public Private Partnership
- Institutional arrangement: An inter ULB agreement authorizing the biggest ULB to act as lead member of the cluster.
- Technology for Waste Treatment: Waste to Energy
- Location of ISWM Facility including Landfill site: Adampur Chawni

- **Name of Cluster: Rewa Cluster**
- **Towns:** Amarpatan, Baikunthpur, Birsinghpur, Chakghat, Chitrakoot, Churhat, Govindgarh, Gurh, Hanumana, Jaitwara, Kotar, Kothi, Maihar, Majhauri, Mangawan, Mauganj, Nagod, Naigarhi, New Ramnagar, Rampur Baghelan, Rampur Naikin, Rewa, Satna, Semaria, Sidhi, Sirmour, Teonthar, Unchahara
- **Est. Project Cost. (Rs. Cr): 158.0**
- **Total MSW Generated (TPD): 340**
- **Concession Period: 21 years including implementation**
- **Implementation Modality: Public Private Partnership**
- **Institutional arrangement: An inter ULB agreement authorizing the biggest ULB to act as lead member of the cluster.**
- **Technology for Waste Treatment: Waste to Energy**
- **Location of ISWM Facility including Landfill site: Vil. Padhadiya**



- **Name of Cluster: Gwalior Cluster**
- **Towns:** Antari, Badoni, Bhandar, Bhitwar, Bilaua, Dabra, Datia, Gwalior, Indergarh, Pichhore, Morena, Jhundpura, Sabalgarh, Bamor, Jaura, Kailaras
- **Est. Project Cost. (Rs. Cr): 259.0 Cr**
- **Total MSW Generated (TPD): 605**
- **Concession Period: 21 years including implementation**
- **Implementation Modality: Public Private Partnership**
- **Institutional arrangement: An inter ULB agreement authorizing the biggest ULB to act as lead member of the cluster.**
- **Technology for Waste Treatment: Waste to Energy**
- **Location of ISWM Facility including Landfill site: Vil. Kedarpur**

It is expected that all projects may become functional by June 2019.

6.4. Institutional Mechanism for implementation of Proposed Integrated Solid Waste Management Projects

For each of the proposed cluster, an inter ULB agreement is being signed among the participating ULBs, wherein the ULB contributing the maximum amount of waste and having the sanitary landfill site shall act as the lead ULB and take all steps for implementation of integrated solid waste management projects. The Lead ULB shall perform the following roles and responsibilities for successful execution of the project.

- Providing unencumbered land for landfill site
- Facilitating the concessionaire with all the necessary clearances and approvals required for the implementation of the project
- Appoint Independent Engineer Unit and arrange for payment of professional fee as per the monthly invoices
- Interfacing between GoMP and participating ULBs;
- Managing special account created for SWM for all project related transactions with GoMP and participating ULBs
- Managing escrow account with the concessionaire
- Performance monitoring of concessionaire and the Management Unit
- Convening regular meetings of Monitoring Committee

A. Project Management Structure

The Management structure comprises the following:

- a) **Monitoring Committee (MC)** – comprising the Chief Executive Officers of Parties to supervise contract management and monitor the performance of Concessionaire and MU.

- b) **Independent Engineer (IE)** – a private consultancy organization identified through transparent competitive bidding process by

- i. During Project Operation and Maintenance Phase, MC shall meet once in a Month and shall decide on following matters;
 - (a) Providing concurrence on actual MSW transported by Concessionaire from the various ULBs Governed by Parties and deviation thereon;
 - (b) Final Payment to be made by Parties and to be deposited in Escrow Account for onward payment to Concessionaire;
 - (c) Taking appropriate action in case of default by either of Party;
 - (d) Penalty or Incentive to be provided to Concessionaire as the case may be;
- ii. MC can revise the Service Delivery Target provided, it has been requested by the Party, however those Service Delivery Target cannot be changed if MC opines that those suggested changes will affect the Project performance; and to ascertain the acceptability of suggested changes MU may hire Expert services at its own cost;

C. RESPONSIBILITY OF INDEPENDENT ENGINEER AGENCY

IE responsibility shall be following:

a) DURING PROJECT IMPLEMENTATION PHASE

MU shall undertake detailed appraisal of PIOP submitted by Concessionaire and as the case may be, shall advice MC to issue instruction for corrective action to be taken by Concessionaire. MU may follow up for compliance of such instruction and action taken by Concessionaire.

b) PROJECT OPERATION & MAINTENANCE (O&M) PHASE

- i. MU will undertake routine monitoring of project performance against the Service Level Benchmark (SLB) set in Concession Agreement and achievement or non-achievement of those SLB shall be reported to MC; thus in turn penalty/incentive shall be imposed by MC in consultation with IE as per the Penalty or Incentive Structure set out in Concession Agreement.
- ii. IE/MU will review the financial plan, which would include capital investment required for improvement in service

	2015-16	2016-17	2017-18
Cluster Phasing	02 Clusters	10 Clusters	14 Clusters
Name of Cluster	Sagar, Katni	Bhopal, Rewa, Gwalior, Indore, Hoshangabad, Khandwa, Dewas, Chhatarpur, Damoh, Bhind	Vidisha, Shajapur, Chhindwara, Betul, Shivpuri, Guna, Shahdol, Singrauli, Balaghat, Narsinghpur, Pithampur, Mandsaur, Ratlam
Grant from Central govt. (20%) & State Govt. (20%)	73.22	713.80	458.40
Concessionaire Share	31.78	1031.20	687.60
Total estimated Investment	105.00	1745.00	1146.00

(*Amount in Crores)

Action plan of MSWM in Madhya Pradesh

12	Damoh	12	107	Compost	Bid documents under preparation	FSR Consultant - M/s MaRS Engg & Planning	Bids expected to be publish by 28 th February 2017
13	Chhatarpur	28	188	Compost	Bid documents under preparation	FSR Consultant - M/s MaRS Engg & Planning	Bids expected to be publish by 28 th February 2017
14	Vidisha	15	160	Compost	FSR Prepared. Bid Documents to be prepared	FSR Consultant - M/s Deloitte	Bids expected to be publish by 31 st March 2017
15	Shajapur	26	162	Compost	FSR Prepared. Bid Documents to be prepared	FSR Consultant - M/s Deloitte	Bids expected to be publish by 31 st March 2017
16	Chhindwara	20	173	Compost	FSR Prepared. Bid Documents to be prepared	FSR Consultant - M/s Royal HaskoningDHV	Bids expected to be publish by 31 st March 2017
17	Betul	8	89	Compost	FSR Prepared. Bid Documents to be prepared	FSR Consultant - M/s Royal HaskoningDHV	Bids expected to be publish by 31 st March 2017
18	Shivpuri	10	122	Compost	FSR Prepared. Bid Documents to be prepared	FSR Consultant - M/s Tata Consulting Eng.	Bids expected to be publish by 31 st March 2017
19	Guna	11	152	Compost	FSR Prepared. Bid Documents to be prepared	FSR Consultant - M/s Tata Consulting Eng.	Bids expected to be publish by 31 st March 2017
20	Shahdol	16	116	Compost	FSR Prepared. Bid Documents to be prepared	FSR Consultant - M/s Tata Consulting Eng.	Bids expected to be publish by 30 th April 2017
21	Singrauli	1	71	Compost	FSR Prepared. Bid Documents to be prepared	FSR Consultant - M/s Tata Consulting Eng.	Bids expected to be publish by 30 th April 2017
22	Balaghat	13	97	Compost	FSR Prepared. Bid Documents to be prepared	FSR Consultant - M/s Ecopro-Meghraj	Bids expected to be publish by 30 th April 2017
23	Narsinghpur	15	556	Compost	FSR Prepared. Bid Documents to be prepared	FSR Consultant - M/s Ecopro-Meghraj	Bids expected to be publish by 30 th April 2017
24	Pithampur	24	241	Compost	FSR Prepared. Bid Documents to be prepared	FSR Consultant - M/s Ecopro-Meghraj	Bids expected to be publish by 30 th April 2017
25	Mandsaur	22	160	Compost	FSR Prepared. Bid Documents to be prepared	FSR Consultant - M/s MaRS Engg & Planning	Bids expected to be publish by 30 th April 2017
26	Ratlam	17	171	Compost	FSR Prepared. Bid Documents to be prepared	FSR Consultant - M/s MaRS Engg & Planning	Bids expected to be publish by 30 th April 2017

	Udaipura	19693	5
	Vidisha	168410	51
	Total	581553	161

3 Bhopal Cluster	Ashta	57433	17
	Berasia	33424	8
	Bhopal	1941873	874
	Ichhawar	16437	4
	Kolar	94903	28
	Kothri	11367	3
	Mandideep	64420	19
	Obedullaganj	24670	6
	Sehore	117835	35
	Total	2362362	996

4 Shajapur Cluster	Agar	40946	10
	Akodia	12583	3
	Badagaon	7794	2
	Badod	14939	4
	Biaora	53015	16
	Boda	10676	3
	Chhapiheda	9180	2
	Jirapur	23459	6
	Kanad	11293	3
	Khilchipur	20440	5
	Khujner	11647	3
	Kurawar	24215	6
	Machalpur	10233	3
	Nalkheda	18023	5
	Narsingharh	34912	9
	Pachore	29585	7
	Pankhedi (Kalapipal)	3876	1
	Polaykalan	13248	3

7 Bhind Cluster	Akoda	13535	3
	Alampur	11540	3
	Ambah	50946	15
	Bamor	35461	9
	Bhind	213370	64
	Daboh	19543	5
	Gohad	63647	19
	Gormi	22506	6
	Jhundpura	10586	3
	Joura	45520	11
	Kailaras	27991	7
	Lahar	38524	10
	Mau	21756	5
	Mehgaon	23039	6
	Mihona	18288	5
	Morena	216498	65
	Phuphkalan	13668	3
	Porsa	42838	11
	Sabalgarh	43555	11
	Total	932811	260

8 Shivpuri Cluster	Badarwas	14655	4
	Badoda	19910	5
	Karera	30998	8
	Khaniyadhana	17145	4
	Kolaras	21361	5
	Narwar	20934	5
	Pichhore	19575	5
	Sheopur	77699	23
	Shivpuri	194355	58
	Vijaypur	18319	5
	Total	434951	122

12 Pithampur Cluster	Anjad	28389	7
	Badnawar	22588	6
	Barwaha	28573	7
	Barwani	59938	18
	Dahi	9189	2
	Dhamnood	34657	9
	Dhar	101420	30
	Dharampuri	17670	4
	Karahi & Padlya Khurd	8315	2
	Kasrawad	24567	6
	Khargone	125429	38
	Khetia	17002	4
	Kukshi	30594	8
	Maheshwar	26361	7
	Manawar	32821	8
	Mandav	11508	3
	Mandleshwar	13329	3
	Palsud	10921	3
	Pansemal	13138	3
	Pithampur	136282	41
	Rajgarh	22319	6
	Rajpur	22620	6
	Sardarpur	7876	2
	Sendhwa	60997	18
	Total	866503	241

13 Dewas Cluster	Bagli	11134	3
	Bhaurasa	13138	3
	Dewas	312681	94
	Hatpiplya	18811	5
	Jawar	8862	2
	Kannod	19162	5

16 Chhindwara Cluster	Amarwara	15271	4
	Badkuhi	10685	3
	Barghat	13067	3
	Bichua	1445	0
	Chand	13296	3
	Chandameta- Butaria	17815	4
	Chaurai Khas	13991	3
	Chhindwara	189036	57
	DaMUa	26633	7
	Dongar Parasia	46204	12
	Harrai	11879	3
	Jamai	24387	6
	Lakhnadon	18684	5
	Lodhikheda	10745	3
	Mohgaon	10701	3
	Neuton Chikhli Kalan	10626	3
	Pandhurna	49112	12
	Piplanarayanwar	9282	2
	Sausar	29653	7
	Seoni	110519	33
	Total	633031	173

17 Jabalpur Cluster	Barela	13628	3
	Bhedaghat	7189	2
	Chichali	10212	3
	Gadarwara	51407	15
	Gotegaon	30317	8
	Jabalpur	1154715	462
	Kareli	32320	8
	Katangi	20561	5
	Majholi	14265	4

19 Ujjain Cluster	Badnagar	39349	10
	Khacharod	36922	9
	Mahidpur	37107	9
	Makdon	12611	3
	Nagda	108031	32
	Tarana	26898	7
	Ujjain	556374	195
	Unhel	15954	4
	Total	833246	269

20 Ratlam Cluster	Alirajpur	30775	8
	Alot	26041	7
	Badawada	9395	2
	Bhavra	11844	3
	Dhamnood	9007	2
	Jaora	80891	24
	Jhabua	38609	10
	Jobat	12933	3
	Meghnagar	13962	3
	Namli	10555	3
	Petlawad	16386	4
	Piploda	8957	2
	Ranapur	13359	3
	Ratlam	286077	86
	Sailana	12947	3
	Tal	16104	4
	Thandla	17015	4
	Total	614857	172

21 Rewa Cluster	Amarpatan	20960	5
	Baikunthpur	11103	3
	Birsinghpur	15485	4
	Chakghat	11531	3
	Chitrakoot	25179	6

	Kotma	32077	8
	Nowrozabad	23631	6
	Pali	24107	6
	Pasan	30720	8
	Shahdol	93606	28
	Umaria	35759	9
	Total	448491	117

23 Singrauli Cluster	Singrauli	237853	71
	Total	237853	71

24 Sagar Cluster	Banda	33393	8
	Bina- Etawa	69684	21
	Deori	27680	7
	Garhakota	35340	9
	Khurai	55191	17
	Rahatgarh	34056	9
	Rehli	32752	8
	Sagar	296490	89
	Shahgarh	17602	4
	Shahpur	14760	4
	Total	616948	175

25 Damoh Cluster	Ajaigarh	17987	4
	Amanganj	14995	4
	Damoh	150710	45
	Devendranagar	13806	3
	Hatta	35059	9
	Hindoria	17279	4
	Kakarhati	9127	2
	Panna	63812	19
	Patera	10720	3
	Patharia	22706	6
	Pawai	15621	4
	Tendukheda	15549	4

The tentative clusters for MSW managements are shown in the image below and are detailed in the Appendix A.

